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TABLE OF CONTENTS

Committees	13
Reviewers	16
Preface	18
Biographies	19
<i>Mohammed Abdalrahman, Jozsef Lehota</i>	
MARKETING LOGISTICS: CREATING SUSTAINABLE COMPETITIVE ADVANTAGE THROUGH THE INTEGRATION OF MARKETING AND SUPPLY CHAIN MANAGEMENT	25
<i>Anna Albrychiewicz-Słocińska, Elżbieta Robak</i>	
CSR PRACTICES AS AN ELEMENT OF MANAGEMENT EMPLOYEES FROM GENERATION Y	31
<i>Anna Albrychiewicz-Słocińska</i>	
ORGANIZATIONAL BENEFITS OF KNOWLEGE SHARING BEHAVIOUR	37
<i>Anna Albrychiewicz-Słocińska, Aleksandra Czarnecka, Anna Dunay</i>	
EMPLOYEE VOLUNTEERING AND BUILDING EMPLOYEE ENGAGEMENT	42
<i>Hani Alghamdi, Zoltán Szira, Imola Cseh-Papp, Erika Varga</i>	
PUBLIC-PRIVATE PARTNERSHIPS AND PUBLIC EXPENDITURES ON EDUCATION IN OECD COUNTRIES	48
<i>Hani Alghamdi, Zoltán Szira, Imola Cseh-Papp, Erika Varga</i>	
ANALYZING UNEMPLOYMENT BY EDUCATIONAL ATTAINMENT	54
<i>Waleed Al-Zaidi, Ahmed Al-Zuhairi, Shawkat Salih</i>	
THE CONTRIBUTION OF PROCUREMENT IN INVENTORY RISKS: A CASE STUDY OF KIMADIA COMPANY (IRAQ)	60
<i>András Bittsánszky, Anna Dunay, András J. Tóth, Kevin Serrem</i>	
EVALUATION OF PROFESSIONAL KNOWLEDGE OF COOKS AND STORAGE MANAGERS IN SECONDARY SCHOOLS	65
<i>Maria Aparecida Marques, Anna Dunay</i>	
AGROFORESTRY SYSTEMS – A PATH TOWARDS SUSTAINABILITY	70
<i>Hitendra Bargal, Ashish Sharma, Priyanka Chawla</i>	
ROLE OF FEMALE ENTREPRENEURS IN URBAN INDIA	76
<i>Nicoletta Baskiewicz</i>	
TYPE OF CHANGES AND THE PROCESS OF THEIR CONCEPTUALIZATION AND IMPLEMENTATION IN THE LIGHT OF RESEARCH	84
<i>Anna Bazan-Bulanda</i>	
THE USING OF AGILE PROJECT MANAGEMENT PHASES IN PUBLIC PROCUREMENT	90
<i>Robert Blažlak</i>	
THE COMPANIES' INNOVATION ECOSYSTEM	95

Flavia Alex Bonga

STRATEGIC ANALYSIS OF DOMESTIC FIRMS IN ANGOLA USING MINTZBERG'S 5Ps OF STRATEGY: CASE STUDY- PANGEA BAKERY, LUANDA ANGOLA 100

Norbert Bozsik, Róbert Magda

EMPLOYMENT AND LABOUR PRODUCTIVITY IN THE AGRICULTURE OF HUNGARY 104

Agnieszka Bretyn, Grażyna Wolska, Iwona Bąk

INNOVATION ACTIVITY AND CROSS-BORDER COOPERATION OF MICRO, SMALL AND MEDIUM SIZED ENTERPRISES AS EXEMPLIFIED BY THE POMERANIAN EUROREGION..... 110

Magdalena Bsoul-Kopowska

CRISIS MANAGEMENT IN THE NATIONAL SECURITY SYSTEM 116

Felicjan Bylok

FUNCTIONING OF SOCIAL NETWORKS IN ENTERPRISES – ANALYSIS OF BENEFITS FOR ENTERPRISES AND EMPLOYEES 121

Katarzyna Cheba, Iwona Bąk

MODELLING OF SUSTAINABLE DEVELOPMENT OF EUROPEAN UNION IN A DYNAMIC PERSPECTIVE 127

Jolanta Chluska

RISK MANAGEMENT OF HEALTHCARE UNIT'S ACTIVITIES IN THE PROCESSES OF THEIR MERGER 133

Andrzej Chluski, Anna Karczewska

THE IMPACT OF FORMALIZATION OF INTELLECTUAL CAPITAL, WITH THE SUPPORT OF INFORMATION TECHNOLOGY, ON THE EFFECTIVENESS OF ACTIVITY OF POLISH HOSPITALS 137

Ewelina Chrapek

ALCOHOL DEPENDENCE AND THE RELATIONSHIPS IN THE WORKPLACE 143

Edward Chrzan, Izabella Sowier-Kasprzyk

ETHICS OF BUSINESS IN THE ASPECT OF THE INFLUENCE OF MEDIA ON HEALTH OF CHILDREN IN SCHOOL AGE 147

Leszek Cichobłaziński, Sidney Soares Filho

MEDIATION IN COLLECTIVE DISPUTES IN POLAND: HOW AND WHY CAN IT BE APPLIED IN BRAZIL? 152

Cosmina-Simona Toader, Małgorzata Michalcewicz-Kaniowska, Małgorzata Zajdel, Iveta Ubrežiová, Brunilda Liçaj, Hasim Deari, Ciprian Rujescu

IDENTIFYING SIMILARITIES AND DIFFERENCES OF OPINION AMONG THE YOUNG CONSUMERS IN THE FIELD OF TOURISM – A MULTINATIONAL APPROACH 157

Aleksandra Czarnecka, Bartosz Sobotka

COOPERATION BETWEEN UNIVERSITIES AND SOCIO-ECONOMIC ENVIRONMENT 163

Aleksandra Czarnecka, Anna Albrychiewicz-Słocińska, Csaba Bálint Illés

THE ESSENCE AND PREMISES OF CSR DEVELOPMENT IN POLAND 168

<i>Gábor Cziráki, László Pataki</i> PORTFOLIO LIFECYCLE AS AN OPTIMIZATION METHOD	173
<i>Serene Dalati</i> FACTORS AFFECTING SYRIAN FEMALE RESEARCHERS IN BUSINESS: BUILDING A THEORETICAL MODEL.....	178
<i>Marta Daroń, Monika Górska</i> THE IMPROVING OF PRODUCTION ENTERPRISES FUNCTIONING FROM THE PERSPECTIVE OF EMPLOYEES AT DIFFERENT ORGANIZATIONAL LEVELS	185
<i>Anna Dunay, Beatrix Turzai-Horányi</i> ORGANIZATIONAL LIFECYCLE OF CAR DEALERSHIPS IN HUNGARY	191
<i>Kaishantayeva Malika Dautkanovna, Baibachinova Alike Kanatovna, Kashakbay Aigerim Margulanovna, Christian Kahl</i> MANAGEMENT OF THE PERCEPTION OF SERVICE QUALITY IN RESTAURANT INDUSTRY	196
<i>Paweł Dziekański</i> LOCAL DEVELOPMENT OF INFRASTRUCTURE COMPETITIVENESS AND LEVEL OF INVESTMENT OUTLAYS OF EASTERN ADMINISTRATIVE DISTRICTS IN POLAND	207
<i>Sylvie Formánková, Marek Andrysík, Leona Leblochová</i> RISK MANAGEMENT IN AGRICULTURE	213
<i>Maris Freifalts, Gaida Pettere, Irina Voronova</i> COMPANY'S SOLVENCY ASSESSMENT METHODS: SIMPLE ASSESSMENT MODEL ADAPTATION	219
<i>Barbara Fura</i> APPLICATION OF MALMQUIST INDEX IN THE PRODUCTIVITY ASSESSMENT – CASE OF PRODUCTION COMPANIES IN POLAND	225
<i>Joanna Gajda</i> PROFESSIONAL EXPECTATIONS OF REPRESENTATIVES OF GENERATION Y IN THE LIGHT OF EMPIRICAL RESEARCH	231
<i>Roman Garbiec</i> EVOLUTION OF THE SOCIAL SECURITY SYSTEM IN POLAND	238
<i>Mihaela Ghicajanu</i> BUSINESS EXCELLENCE IN ROMANIA	245
<i>Ewa Głuszek</i> EVALUATION OF THE SOCIAL IRRESPONSIBILITY OF A COMPANY: THEORETICAL SCHEME	250
<i>Monika Górska, Marta Daroń,</i> PROBLEMS OF CONTROL IN SUPPLY CHAINS AND IMPROVEMENT OF PARTNER RELATIONS	257

<i>Zoltan Horvath</i>	
APPLICATIONS OF LEAN MANAGEMENT METHODS IN NON-PROFIT ORGANIZATIONS	262
<i>Wisam N Hussein, Satam S Hussein, Anita Tangl</i>	
THE EXTERNAL AUDIT PROCEDURES IN REDUCING TAX EVASION EMPIRICAL STUDY: IRAQ	267
<i>Hoang Nguyen Huu</i>	
THE TRANSITION OF THE VIETNAMESE HIGHER EDUCATION SYSTEM ADAPTING TO THE 4.0 INDUSTRIAL REVOLUTION	274
<i>Csaba Bálint Illés, András J. Tóth, Anna Dunay, András Bittsánszky1</i>	
PILOT-STUDY FOR THE MEASUREMENT OF CONSUMED FOOD IN SCHOOL CAFETERIAS	280
<i>Manuela Ingaldi, Robert Ulewicz</i>	
DETERMINATION OF THE STRATEGIC POSITION OF A PRINTING ENTERPRISE	286
<i>Natalia Ivanova, Darya Moshynska</i>	
EMPLOYER BRANDING FROM THE PERSPECTIVE OF SOCIAL IDENTITY APPROACH	293
<i>Nasib Jafarov</i>	
CATALYSTS OF INNOVATIVE ENTREPRENEURSHIP ECOSYSTEM: CASE OF HUNGARY	300
<i>Marek Jakubiak</i>	
CONTRIBUTION OF POLISH TECHNICAL UNIVERSITIES TO SUSTAINABLE DEVELOPMENT GOALS BY EDUCATION OF ENGINEERING STAFF	306
<i>Robert Janik</i>	
THE POSSIBILITY OF CREATING THE EU BUSINESS IDENTITY	311
<i>Dorota Jelonek, Tomasz Turek</i>	
OPPORTUNITIES FOR THE USE OF GOOGLE ANALYTICS FOR MANAGEMENT OF RELATIONS WITH PROSUMERS	318
<i>Bartosz T. Kalinowski</i>	
RELATION BETWEEN BUSINESS PROCESS MATURITY AND PERFORMANCE - SYSTEMATIC LITERATURE REVIEW	324
<i>Alfreda Kamińska</i>	
THE IMPACT OF LOCAL AUTHORITIES ON THE INNOVATIVE MILIEU	329
<i>Karolina Karbownik</i>	
THE SPECIFICITY OF EMPLOYEE MOTIVATION IN TELECOMMUTING	335
<i>Anna Karczewska, Andrzej Chluski</i>	
NEW TRENDS IN THE LABOUR SPHERE AND ITS CONSEQUENCES FOR THE EMPLOYEES	340

<i>Nesrine Khazami, Zoltan Lakner</i> THE INTEGRITY FACTORS OF HALAL FOOD FACTORS IN SUPPLY CHAIN	346
<i>Elena Korchagina</i> IS THE DEVELOPMENT OF RUSSIAN REGIONS SUSTAINABLE? THE STUDY OF THE CENTRAL FEDERAL DISTRICT	352
<i>Sheila M. Korley</i> THE CURRENT SITUATION OF SMALL AND MEDIUM SIZED ENTERPRISES IN GHANA	363
<i>Sylwia Kowalska</i> PROFESSIONAL ACTIVITIES OF THE POPULATION OF POLAND AND THE FORMS OF THEIR EMPLOYMENT	369
<i>Jana Kozáková, Radovan Savov, Drahoslav Lančarič, Iveta Ubrežiová</i> ENTREPRENEURSHIP EDUCATION AT SLOVAK UNIVERSITY OF AGRICULTURE IN NITRA: A FOCUS GROUP STUDY	378
<i>Izabela Krawczyk-Sokołowska, Agata Pierścieniak, Wiesława Caputa</i> CROWDSOURCING IN PUBLIC SECTOR ACTIVITIES	384
<i>Tomáš Kučera</i> NEW MODEL OF LOGISTICS PROCESSES ORGANIZATION IN WAREHOUSE AND EFFECT OF LOGISTICS COSTS REDUCTION	390
<i>Katarzyna Kukowska, Sebastian Skolik</i> SOCIAL NETWORKS AND BUILDING CULTURAL CAPITAL IN RURAL TOURIST AREAS – CONCEPTUALIZATION OF THE RESEARCH METHODOLOGY	395
<i>Edyta Kulej-Dudek</i> CORPORATE SOCIAL RESPONSIBILITY IN POLAND ACCORDING TO ENTREPRENEURS FROM THE SME SECTOR – PILLARS: RELATIONS WITH EMPLOYEES AND MARKET	401
<i>Alfiya Kuznetsova, Radka Lankasova, Zuzana Dvorakova, Albina Akhmetiyanova, Zhibek Omarkhanova</i> MIGRATION PROCESSES AND THEIR IMPACT ON THE LABOR MARKET OF POLAND	406
<i>Agnieszka Kwiatek</i> DIGNITY-BASED MOTIVATION AS A DETERMINANT OF CONTEMPORARY MANAGEMENT	412
<i>Agnieszka Kwiatek, Maja Skiba</i> EMPLOYMENT AS A BASIS OF SOCIO-ECONOMIC FREEDOM AND SOCIAL RESPONSIBILITY OF EMPLOYERS	417
<i>Renata Lisowska</i> INNOVATIVE BEHAVIOUR AND COMPETITIVENESS OF SMALL AND MEDIUM-SIZED ENTERPRISES IN POLAND	422

Hasan Mansur, Anita Tangl

**THE IMPACT OF THE ENVIRONMENTAL DIMENSION TO STRENGTHEN
THE COMPETITIVE ADVANTAGE AND FINANCIAL PERFORMANCE
IN INDUSTRIAL FIRMS 428**

Musaab Mousa, Sagi Judit, Zeman Zoltan

**THE ROLE OF MARKETING IN CAPITAL MARKET: A REVIEW STUDY
AND PROPOSED THEORETICAL FRAMEWORK 433**

Domenico Nicolò, Bruno Ricca

**DISCOVERING VARIABLES THAT AFFECT THE SURVIVAL
OF YOUNG FIRMS: AN EMPIRICAL SURVEY OF ITALIAN COMPANIES 438**

Nijole Litevkiene, Gintare Kulbeckiene

**CRISIS COMMUNICATION MANAGEMENT
IN A PUBLIC SECTOR INSTITUTION 444**

Tomasz Nitkiewicz

**ENHANCING ECO-INNOVATION DEVELOPMENT AND IMPLEMENTATION
IN THE BUSINESS SECTOR: A COMPARISON OF SELECTED PROGRAMS
REALIZED IN POLAND AND AUSTRIA 452**

Saeed Nosratabadi, Csaba Bálint Illés

MANAGEMENT OF BUSINESS MODEL OF SMEs IN IRAN 458

Barbara Ocicka

**COLLABORATIVE INNOVATION PROCESS IN SUPPLY CHAIN MANAGEMENT:
INSIGHTS FROM POLAND 463**

Olena Oliynyk-Dunn, Viktor Adamenko

**COMPARATIVE ANALYSIS OF FINANCING PATTERNS OF AGRICULTURAL
ENTERPRISES IN UKRAINE, POLAND AND USA 468**

Mehmet Sercan Onalan, Robert Magda

RURAL WOMEN ENTREPRENEURSHIP IN TURKEY 475

Dana Országhová, Radomíra Hornyák Gregáňová, Viera Papcunová

**THE AGEING OF THE POPULATION IN RELATION TO SUSTAINABLE
ECONOMIC DEVELOPMENT 482**

Ghazala Othman, Zoltán Szira, Erika Varga

THE ANALYSIS OF FACTORS AFFECTING CRUDE OIL PRICES 489

Nguyen Duc Phong, Anita Tangl

**ABILITY AND ORIENTATION OF IMPLEMENTING INTERNATIONAL
FINANCIAL REPORTING STANDARDS IN VIETNAM 495**

Agata Pierścieniak, Izabela Krawczyk-Sokołowska, Wiesława Caputa

**STANDARDIZATION OF THE COORDINATION PROCESS IN CLUSTERS FROM
THE PERSPECTIVE OF THE SERVANT LEADERSHIP CONCEPT 501**

<i>Agata Przewoźna-Krzemińska</i> FREELANCING - A CHALLENGE FOR MODERN HR DEPARTMENTS IN POLAND AND IN SELECTED COUNTRIES OF THE EUROPEAN UNION	506
<i>Paula Pypłacz, Katarzyna Liczmańska-Kopcewicz</i> RELATIONSHIPS BETWEEN PRO-INNOVATION ORGANIZATIONAL CULTURE WITH REALIZING GOALS CONCERNING PRODUCT AND MARKETING INNOVATIONS IN COMPANIES FROM FMCG SECTOR	511
<i>Małgorzata Randak – Jezierska</i> THE USE OF COACHING BY MANAGERS TO DEVELOP SELF-MANAGEMENT SKILLS	516
<i>Elżbieta Robak</i> FACTORS INFLUENCING THE RELATIONS BETWEEN EMPLOYEES FROM GENERATION Y AND THEIR SUPERIORS	521
<i>Agata Rudnicka, Błażej Socha</i> SOCIAL ECONOMY ORGANIZATIONS AS A CHOICE FOR CAREER DEVELOPMENT OF STUDENTS FROM NON-ECONOMIC FIELDS OF STUDIES	527
<i>Sami S.A. Sader, Istvan Husti, Miklos Daroczi</i> INTEGRATING INDUSTRY 4.0 FEATURES WITH QUALITY MANAGEMENT PRACTICES	533
<i>Peter Šedík, Elena Horská</i> THE APPLICATION OF GENERATION MARKETING IN HONEY MARKETING MANAGEMENT: EMPIRICAL STUDY IN SLOVAKIA	539
<i>Robert Seliga, Łukasz Sułkowski</i> BRAND MANAGEMENT IN UNIVERSITY MERGERS	545
<i>Kevin Serrem, Csaba Bálint Illés</i> MANAGEMENT ISSUES OF SCHOOL CATERING SYSTEM IN KENYA	551
<i>Łukasz Skiba</i> PAST, PRESENCE AND THE FUTURE OF CSR ACCORDING TO THE MANAGEMENT BOARD	557
<i>Maja Skiba</i> STRESS AS A RISK FACTOR IN OCCUPATIONAL BURNOUT IN EMPLOYEES	563
<i>Sebastian Skolik, Katarzyna Kukowska, Anna Karczewska</i> TOURISTIC AREAS OF THE NORTHERN PART OF KRAKOW-CZESTOCHOWA UPLAND AS A CONSUMER GOOD IN DIGITAL MEDIA	569
<i>Bartłomiej Skowron, Elżbieta Milewska,</i> USE OF IT TECHNOLOGIES IN THE MANAGEMENT OF PRODUCTION PROCESS QUALITY – A CASE STUDY	575
<i>Sylwia Stachera-Włodarczyk</i> THE CONCEPT OF CORPORATE SOCIAL RESPONSIBILITY IN BANKS	580

<i>Hana Stojanová, Barbora Lietavcová</i>	
THE DEPENDENCE OF UNEMPLOYMENT OF SENIOR WORKFORCE UPON EXPLANATORY VARIABLES IN THE EUROPEAN UNION	584
<i>Ewa Stroińska, Justyna Trippner-Hrabi</i>	
VIRTUALIZATION OF ACADEMIC TEACHER 'S WORK	591
<i>Urszula Swadźba</i>	
THE YOUNG POLISH GENERATION IN THE REALITY OF THE ECONOMY – BUSINESS ACTIVITY AND ENTREPRENEURSHIP	596
<i>Danuta Szwajca</i>	
COMPETENCES OF POLISH CONSUMERS AS STAKEHOLDERS OF A COMPANY	602
<i>Magdalena Szydełko</i>	
THE ESSENCE AND FEATURES OF BENCHMARKING PARTNERSHIP OF CLUSTER ENTERPRISES	608
<i>Anita Tangl , István Vajna</i>	
THE RESULTS OF LEAN PRODUCTIVITY DEVELOPMENT COMBINED WITH KARAKURI KAIZEN METHOD	614
<i>Dorin Tataru, Cristina Andreea Tataru, Aurora Stanci</i>	
MANAGEMENT OF AFFECTED AREAS BY THE POLLUTION OF SLAG AND ASH DEPOSITS	620
<i>Weronika Toszewska-Czerniej</i>	
HUMAN CAPITAL MANAGEMENT IN MICRO ENTERPRISE: A CASE STUDY	624
<i>Maciej Urbaniak</i>	
THE ROLE OF THE REQUIREMENTS OF QUALITY, ENVIRONMENTAL AND SAFETY MANAGEMENT SYSTEMS IN THE RELATIONSHIP WITH SUPPLIERS	632
<i>Erika Varga, Ghazala Othman, Zoltán Szira</i>	
FACTORS CONTRIBUTING TO CRUDE OIL PRICE CHANGES	637
<i>Michael Wenz</i>	
THE SOCIO-ECONOMIC IMPACT OF POLISH CASINO EXPANSION, 2010-2014	643
<i>Grażyna Wieteska</i>	
THE IMPACT OF THE DEVELOPMENT OF NATURAL AND ORGANIC COSMETICS ON SUPPLY CHAIN PROCESSES AND SUPPLIER BASE ARCHITECTURE	648
<i>Lucyna Witek</i>	
GREEN CONSUMER: THE ATTITUDE-BEHAVIOR GAP TOWARDS ENVIRONMENTALLY FRIENDLY PRODUCTS	654
<i>Zuzana Wroblowská</i>	
COMPARISON OF REQUIREMENTS FOR BRAND MANAGERS IN THE CZECH REPUBLIC AND UKRAINE IN KNOWLEDGE MANAGEMENT FRAMEWORK	660

<i>Anna Wronka</i> DETERMINANTS OF SAFETY OF PRODUCTION PROCESS	665
<i>Katarzyna Zadros</i> AN EMPLOYEE IN THE WORLD OF SUSTAINABLE MANAGEMENT IN SUSTAINABLE ECONOMY	671
<i>Monika Zajkowska</i> STRATEGIC CHOICES FOR CREATION OF SUSTAINABILITY-ORIENTED INNOVATION IN THE ENTERPRISE	677
<i>Magdalena Zalewska-Turzyńska</i> WHEN IS A CHANGE COMMUNICATED? – RESEARCH OUTCOMES FROM POLISH COMPANIES	682
<i>Jadwiga Zaród</i> THE USAGE OF OPTIMIZATION MODELS IN FARM MANAGEMENT	688
<i>Beata Zatwarnicka-Madura, Robert Nowacki</i> STORYTELLING AND ITS IMPACT ON EFFECTIVENESS OF ADVERTISING	694
<i>Mariusz Zieliński</i> EMPLOYEES AS THE STAKEHOLDERS OF THE BANKING SECTOR IN POLAND	700
<i>Leszek Ziora, Damian Dziembek</i> THE MANAGEMENT OF IT SOLUTIONS SECURITY OFFERED IN PUBLIC CLOUD COMPUTING	706
<i>Ferenc Zsigri</i> REAL WORLD DECISION MAKING	712
<i>Monika Żak</i> CULTURAL AND ECONOMIC DETERMINANTS OF CONSUMPTION BEHAVIOURS AMONGST POLISH STUDENTS	717
LATE SUBMISSION	725
<i>Edyta Kulej-Dudek, Robert Kucęba, Waldemar Jędrzejczyk</i> TESTING TRANSVERSAL COMPETENCES IN THE PROCESS OF PRACTICAL TEACHING OF STUDENTS	727

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PREFACE

These proceedings represent the work of researchers participating in the 8th INTERNATIONAL CONFERENCE ON MANAGEMENT entitled "Leadership, Innovativeness and Entrepreneurship in a Sustainable Economy" (ICoM 2018) which was hosted by Czestochowa University of Technology, Faculty of Management, Czestochowa, Poland on 7-8th June 2018. ICoM is the result of cooperation of four universities from the following Central and Eastern European countries: Czestochowa University of Technology, Poland; Szent István University, Gödöllő, Hungary; Slovak University of Agriculture in Nitra, Slovakia; Mendel University in Brno, Czech Republic.

ICoM is a recognised event on the international research conferences calendar and provides a valuable platform for individuals to present their research findings, display their work in progress and discuss advances in the area of Research Methodology within the Management Studies domain. It provides an important opportunity for researchers and practitioners to come together to share their experiences in this varied and expanding field. This year the conference has had a focus on Leadership, Innovativeness and Entrepreneurship in a Sustainable Economy which has been highlighted in the pre-conference keynote presentations as well as in the speeches of participants.

The first day was opened with a keynote presentation by: Prof. Anna Dunay, Szent István University, Hungary; Eng. Sylvie Formánková Ph.D., Mendel University in Brno, Czech Republic; Prof. Michael Wenz, North eastern Illinois University, Chicago, USA; Prof. Robert Kucęba, Czestochowa University of Technology, Poland; Prof. Domenico Nicolò, Università Mediterranea di Reggio Calabria, Italy; prof. Serene Dalati, International Arab University, Syria; Prof. Christian Kahl, Almaty Management University, Kazakhstan; Prof. Marek Jakubiak, Warsaw University of Technology, Poland.

Research papers published in these Conference Proceedings also include articles of PhD Students as ICoM provides opportunities for young scientists to develop their scientific and presentation skills. The conference papers truly represent global research in the field, with contributions from Albania, Angola, Brazil, the Czech Republic, Ghana, Hungary, India, Iraq, Italy, Kazakhstan, Kenya, Latvia, Lithuania, Macedonia, Poland, Romania, Russia, Slovakia, Spain, Syria, Tunisia, Ukraine, USA, Vietnam.

All papers have gone through the process of double-blind review with the help of international group of reviewers.

Felicjan Bylok
Anna Albrychiewicz-Słocińska
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BIOGRPHIES

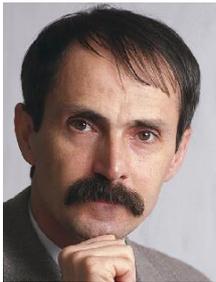
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Professor Felicjan Bylok



Prof. Felicjan Bylok is an Associate Professor of sociology. He is Deputy Dean for Science at the Faculty of Management and the director of the Institute of Sociology and Psychology of Management at the Faculty of Management of the Częstochova University of Technology. His scientific interests are as follows: the sociology of consumption, the sociology of the economy, human resources management, social capital and trust. The educational background of Prof. Bylok is in Sociology.

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Full Professor in Szent István University, Gödöllő, Hungary. He is Vice Director of Institute of Business Studies, Head of Department of Business Economics and Management, Director of Executive MBA Programme, core member of the Doctoral School of Management and Business Administration at Szent István University. He is author and co-author of more than 300 refereed scientific papers. His current research interests: management and development of SMEs, corporate competitiveness; food safety management; CSR in different sectors; farm management.

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Helena Chládková, Ph.D. is an Associate professor in Mendel University in Brno, Czech Republic. She is guarantor of subjects and teacher at the same time of Management, Business Management and Integrated Management at the Faculty Business and Economics, Faculty of AgriSciences and Faculty of Horticulture. She is the author and co-author of more than 80 refereed scientific papers. Her current research interests: management and development of SMEs; SMEs competitiveness; analysis of the different industries (primarily wine industry); CSR.

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An university professor in economics and management of enterprise at the Department of Management at the Faculty of Economics and Management SUA in Nitra, Slovakia. She is interesting in International Management and Entrepreneurship as well Small and Medium Sized of Enterprises (supervisor and lecturer). She is author or co – author of the publications, where her scientific work is expressed in national and international books, monographs, the scientific articles cited in Web of Sciences and SCOPUS and the articles from domestic and international conferences. She was like Erasmus+ teacher in Russian Federation, Finland, Spain, Latvia, Lithuania, Hungary, Ukraine, Poland, Albania and Serbia. She is a member of the Scientific Board at the Faculty of Economics and Management in Nitra (Slovakia), a member of Editorial Boards of the scientific journals “*Business Trends*” (West Bohemian University in Pilsen, Czech Republic) and *Journal of Agribusiness and Rural Development* (Agricultural University of Poznan in Poznan, Poland).

KEYNOTESPEAKERS

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Serene Dalati is a lecturer of management at the faculty of Business administration at the Arab International University, Syria. Serene has obtained a PhD in managerial leadership, organizational culture and job satisfaction in 2008 which was preceded by British Chevening scholarship to study for an MBA at Bangor University in 2002. Serene teaches for areas in organizational Behaviour, Leadership, Culture and Job satisfaction. Field of expertise also include Strategic Management, International Management, Marketing, and Entrepreneurial Small Business. Serene has also developed experience in Capacity building projects for Erasmus + programs.

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Dr. phil. Christian Kahl studied in Friedrich-Schiller-University Jena (Germany) as well in Essex University Colchester (UK) Education Science, Sociology and Psychology. In 2005, he earned a triple degree in all three majors. Form 2005 until 2010 he did his PhD dissertation in education philosophy at Friedrich-Schiller-University Jena (Germany) and graduated with cum laude.

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MARKETING LOGISTICS: CREATING SUSTAINABLE COMPETITIVE ADVANTAGE THROUGH THE INTEGRATION OF MARKETING AND SUPPLY CHAIN MANAGEMENT

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Abstract: Down through the generations managers have tried to find the most appropriate strategy to differentiate their marketing offer and create a sustainable competitive advantage for their firms. Hence, this paper aims to highlight the importance of marketing logistics and increase the understanding of how firms can create a sustainable competitive advantage through the effective implementation of marketing logistics operations. To achieve the research purpose, a desk research was conducted and a thorough literary analysis was carried out on the main concepts of the supply chain management and marketing management. Literary resources were collected by using various databases such as Scopus, Science Direct, and other search tools. The main results indicate that the firms' attitude towards logistic activities has changed from considering logistics as a cost centre to seeing it as an efficient system that can reduce costs and have a positive impact on product affordability and availability. Since then, the relationship between marketing activities and supply chain management activities through marketing logistics resulted in achieving a high level of customer service by effectively coordinating both functional areas activities toward achieving the goal of customer satisfaction.

Keywords: competitive advantage, customer service, marketing logistics, integration, supply chain

Introduction

The purpose of this paper is to highlight the importance of marketing logistics for firms and increase the understanding of how firms can create a sustainable competitive advantage in the field of marketing logistics through effective integration between marketing management and supply chain management.

To achieve the research purpose, a desk research was conducted, and a through literature survey was carried out on the main concepts of supply chain management, marketing management, marketing logistics and differentiation strategies. Literature resources were collected by using various databases as Scopus, Web of Science, Science Direct, EBSCO, Google Scholar, Taylor and Francis, and other search tools. For achieving needed literature sources keywords as supply chain, marketing logistics, customer service, value chain, competitive advantage, differentiation, and supply chain integration were used. This paper will serve as the first step for future research steps in applying the concept of marketing logistics in different fields and environments.

Literature review

At the beginning of the new era of increased globalization that combined with trade growth between countries and transport deregulation (Lambourdière, et al., 2017; Kwak, et al., 2017) has resulted in greater competition cost (Mehta, 2007), increased amounts of more customized products, and shortening product life cycles (Hilletoft, et al., 2009). This implies that markets are becoming more fragmented and volatile and generating additional management challenges and new practices in supply chain (SC) design and management (Hilletoft, et al., 2009). Consequently, companies often stock with inefficient supply chains where inventory holding costs are increasing and lead time is rising. Given these situations, organizations now, are in a need to have more supply chain flexibility that can deliver the right product, at the right time, of the desired quality, and at a competitive price (Sarangi & Srivatsan, 2009).

Supply chain management (SCM) definition and purpose

SCM covering a broad range of disciplines, so, it is not easy to find a clear and unified definition of it (LeMay, et al., 2017). However, Madhani, (2015) define SCM as “managing all the processes, activities, technologies, strategies and plans that together constitute the basis for working with internal

and external sources of supply". Mehta, (2007) define SCM as "A set of approaches utilized to efficiently integrate suppliers, manufacturers, warehouses and stores so that merchandise is produced and distributed in the right quantities, to the right locations and at the right time to minimize system-wide costs while satisfying service level requirements of the customers in the entire supply chain". LeMay, et al., (2017) in their paper tried to collect most of the previous definitions and defined SCM as "the design and coordination of a network through which organizations and individuals get, use, deliver, and dispose of material goods; acquire and distribute services; and make their offerings available to markets, customers, and clients".

Collaboration through supply chains and integration of supply chain processes is becoming more important and has been regarded as a key element in the supply chain (Parast & Spillan, 2014), therefore, researchers have extended the supply chain concept to include upstream, midstream and downstream partners who share information and risk, synchronize business operations, improve customer services, and enhance customer satisfaction to create a more effective supply chain (Liao, et al., 2017). Though, for any firm that wants to build a successful supply chain system, it needs to create integrated processes that work in synergy and harmony throughout the whole supply chain to be able to satisfy consumer needs and responding to changes in the surrounding environment. (Madhani, 2015; Green Jr., et al., 2012). Hence, supply chain capabilities can be determined according to the firm ability to facilitate the overall supply chain activities through identifying, using, and assimilating both internal and external resources and information (Liao, et al., 2017).

In general, SCM aims to match supply efficiently with demand, but while doing so, it does not help the firm to find out what the customer perceives as valuable, or how can the firm translate this perceived value into value propositions. That's why, supply chain efficiency by itself is not sufficient anymore since it will not increase customer value and satisfaction. So, those supply chains with capabilities of cooperating, integrating and implementing a marketing strategy at the supply chain level that focused on the ultimate customers' needs and satisfaction will be able to gain a sustainable competitive advantage that lies in SCM operations and activities which focusses on both of cost efficiencies by achieve a lower cost and on effectiveness in distributing products to specific customer needs at a profit maximization price, and though, developing a differentiated supply chain (Madhani, 2015).

Integrating supply chain with marketing

Utilizing supply chain to achieve customer satisfaction requires cross-functional integration (Ellinger, 2000). But, integrating marketing with SCM is not an easy task, and the integration process faces a lot of challenges since the guiding principles governing the marketing and the SCM operations and strategies are significantly different. (Sarangi & Srivatsan, 2009). Another conflict between marketing and SCM functions associated with inventory management, where marketers try to make sure that customer orders are always met, and so they prefer high stock levels, and thus improving revenue generation, while SCM in contrary, strives to keep low stock levels (Madhani, 2015). For these and other conflicts, marketing and logistics managers have tended not to consult and coordinate with each other, and marketing/logistics interdepartmental relations tend to be characterized by conflict and lack of communication.

In another case, the customer may not have confidence in the ability of the supplier to deliver his requirements on time, hence he places orders in excess quantities more than he needs. If the supplier supplies on time, it leads to cancellation of either acceptance and/or excess orders. These false orders often result in excess purchased material in inventory and in the pipeline as well as underutilized capacity (Mehta, 2007).

The underlying philosophy behind the logistics and supply chain concept is planning and coordinating the materials flow from source to customer as an integrated system rather than managing the goods flow as a series of independent activities will help to avoid such a problem. Thus, under this approach, the goal is to link the marketplace, the distribution network, the manufacturing process and the procurement activity in such a way that customers are serviced at higher levels and yet at lower cost (Christopher, 2011).

Collaborative Cross-Functional Integration and Competitive advantage

Collaboration is about working with others to complete tasks and to achieve shared goals (Liao, et al., 2017), and it involves formal and informal processes that based on mutual trust, respect, information sharing, joint ownership of decisions, and collective responsibility for outcomes (Ellinger, 2000). Collaboration between departments will ensure delivery of high quality services to customers (Ellinger, 2000; Liao, et al., 2017), and allow firms to leverage their suppliers and customers resources and knowledge to achieve a stronger competitive position (Masten & Kim, 2015). Thus, management of relationships is one of the main pillars in SCM that enable all parties in the chain to achieve higher profits. However, firms face a significant challenge in achieving a high level of collaboration especially when self-interests of different parties contradict with the benefit of the chain as a whole (Christopher, 2011).

Competitive advantage is found in the organization ability to differentiate itself from its competitors, by operating at a lower cost or providing higher product quality and hence earn a greater profit. But, as firms globalize, firms realize that their resources are not sufficient to achieve success unless they partnering with other organizations (Min & Mentzer, 2000), especially that markets around the world are composed of heterogeneous environments that contain niches and opportunities to leverage capabilities and create customer value (Miller, et al., 2002).

In the present conditions of increasing competitive environment, firms starts combining marketing management with dynamic SCM to be more flexible in their ability to satisfy customer needs and demand and create higher value for the firm and its customers (Madhani, 2015). But, to be successful, firms need to, and manage a good level of supply chain collaboration to enhance competitive performance by integrating its internal functions and effectively linking them with the external operations of suppliers, customers, and other channel members (Liao, et al., 2017) while maintaining the value of products and services (Grishchenko, et al., 2016). Thereby, additional cost and time of one part are restored by the other part, and so performance of the whole supply chain and the firm will be increased (Ilić & Tešić, 2016). Moreover, integrated logistics systems allow firms to deliver their products to customers at the right time, in the right place, and for the right price (Lambourdière, et al., 2017; Sarangi & Srivatsan, 2009; Luu, 2017). Therefore, those supply chains with the capabilities of implementing and executing an integrated marketing strategy at the supply chain level will gain a competitive advantage at the supply chain level, that results in improved performance for each of the supply chain partners (Green Jr., et al., 2012). Besides, many successful firms build and strengthen their relationships with customers by focusing on distribution competencies and provide a customized basic service offering that matches customers specific needs. Distribution service can offer customers added value and achieves customer satisfaction by creating quick response systems, efficient consumer response initiatives, and just-in-time supply programs. (Ellinger, 2000).

On the other hand, buyers are interested in product quality, service level, cost, and the presence of additional services when buying a product, which requires firms to form logistical approaches that makes it possible to monitor the existence of products in the database and reserves turnover, their relevance expansion and prevent shortage of products, which will help to reduce costs of transportation, reduce the extent of total losses, and reduce the product delivery cycle, and positively affects the customer service quality (Prokhorova, et al., 2016).

In other words, the goal of supply chain management is creating added value for the final customer and to achieve competitive advantage through cost reduction, service enhancement and sell at lower prices (Ilić & Tešić, 2016; Sarangi & Srivatsan, 2009)

Marketing strategy alignment with SCM

The marketing strategy goal is to create value exchanges between different parties that result in customer satisfaction (Min & Mentzer, 2000). On the other hand, logistical activities can help in disseminating data among departments quickly, plan production operations, coordination between intermediaries, and promote the products to customers (Prokhorova, et al., 2016). and since logistics play a major role in determining and providing the appropriate customer service, it became a main element of the firm marketing strategy (Prokhorova, et al., 2016). Thus, logistics and marketing should not be viewed as separate functions (Ilić & Tešić, 2016), since demand is created through marketing

activities and the SCM function fulfills that demand (Golgeci & Gligor, 2017). So, increasing the interaction between logistics and marketing became a key factor in the competitiveness for any firm (Prokhorova, et al., 2016).

Marketing strategy alignment with the supply chain is defined by Green Jr., (2012) as “the development and implementation of a supply chain level marketing strategy by supply chain partners for providing the highest total value to the supply chain's ultimate customers”. But, marketing strategy alignment is relatively difficult to achieve because it is difficult to define what the supply chain ultimate customer values, and, it is difficult to effectively communicate changing customer demands to all supply chain partners (Green Jr., et al., 2012).

Main functions of logistics

Logistics is defined as a science of managing material flows through three flow stages of (1) Bringing the material flow before production; (2) Management of the flow process in production; (3) Management of the process of bringing the finished product to the consumer (Guzelbaeva & Datsyk, 2017). Christopher, (2011) also define Logistics as “the process of strategically managing the procurement, movement and storage of materials, parts and finished inventory (and the related information flows) through the organization and its marketing channels in such a way that current and future profitability are maximized through the cost-effective fulfilment of orders”.

Logistics has an impact on the costs associated with the sale of products, and also it has an impact on improving the competitive situation of companies in the market (Chira & Musetescu, 2017; Sarangi & Srivatsan, 2009) which implies an increase in their market share in that market. Moreover, logistics could reduce inventory cost and manage production costs. Therefore, logistics could have the ability to increase the firm competitiveness by offering additional services and improve their quality. (Prokhorova, et al., 2016).

Discussion: Marketing logistics

In fact, product or service will not have any value until it reaches the customer's hands. Therefore, marketing logistics is about providing the consumer a good level of customer service in the context of providing time and place utility. But making a product available in the market, is impacted by a lot of factors, which together constitute customer service. These factors, for example, might include delivery frequency and reliability, stock levels, and order cycle time and the interaction among these factors is what determine the required level of customer service (Christopher, 2011).

Guzelbaeva & Datsyk, (2017) defines marketing logistics as “planning, organization, accounting and control, analysis and regulation of all movement operations and storage related to the flow of finished products from the end of the production line to product arrival on the market, as well as the distribution channels required for the organization and ensuring interaction between firm and its markets”. Also, Grishchenko, et al., (2016) defines marketing logistics as “planning, operational management, and control of the physical flow of materials and finished products, starting with the location of the feed streams, accessories, etc. and finishing adjusting the final products to consumers, in order to more efficiently meet their needs”

Marketing plays a significant role in determining the strategic orientation and performance outcomes of the firm (Cacciolatti & Lee, 2016), and it is recognized that logistics and SCM activities have a key role at a strategic level in the creation of competitive advantage (Sweeney, et al., 2018). However, marketing logistics strategy is a part of marketing strategy which concerns with the establishment of long-term goals regard marketing logistics structures. Hence, through better logistics and SCM firms can achieve an enduring superiority over competitors in terms of customer preference (Christopher, 2011).

Successful marketing logistic management deal with some complex problems as analysis of material flows, rationalization of packaging, harmonization of loading units, introduction of an efficient storage system to optimize the size and the level of reserves, choice of optimal transport routes, rationalization of transport and storage operations in warehouses enterprises, etc. (Guzelbaeva & Datsyk, 2017).

To effectively implement logistics activities and provide a high level of customer service, a firm must develop several enabling capabilities. First, firms must use customer segmentation to generate a precise view of their market (Mentzer, et al., 2004). This will enable the organization to match its logistics service offerings with customer's needs (Pellathy, et al., 2018). Second, firms must have long-term relationships with their external and internal customers (Gimenez & Ventura, 2005), which will allow firms to keep informed about customer preferences and constraints and improve firm's ability to efficiently provide services that support customers' strategic objectives (Zhao, et al., 2001). The third capability involves the firm ability to effectively manage information flow to execute logistics service operations and enhance operational flexibility and innovativeness. Finally, a firm must have the ability to monitor current performance and drive continuous improvement in their logistics. These capabilities enable a firm to effectively manage the specific tradeoffs involved in delivering relevant logistics value to customers (Pellathy, et al., 2018).

Conclusion

In recent time, firms attitude towards logistic activities has changed from the negative attitude that look at logistics as a cost center to a positive attitude that looks at logistics as an efficient system that can reduce costs and have a positive impact on the final price of the products and make it available to consumer in any determined location.

The relationship between marketing activities and supply chain management activities through marketing logistics concept is resulted in achieving a high level of customer service by effectively coordinate booth functional areas activities toward achieving the goal of customer satisfaction.

Hence, effective marketing logistics can increase the firm efficiencies in term of warehousing, distribution and inventory management, by collaborating and coordinating firm activities internally and externally and building a strong relationship with supply chain partners. Therefore, marketing logistics activities can provide a sustainable competitive advantage for firms by enabling them to deliver their products to their consumers at any preferable place and time at the lowest possible price which result in a higher perceived value in comparison to competitors who lake such activities.

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CSR PRACTICES AS AN ELEMENT OF MANAGEMENT EMPLOYEES FROM GENERATION Y

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Abstract: The aim of the paper is to present changes in CSR practices in the employee area taking place in Polish enterprises and to analyze these initiatives in terms of matching the characteristics of employees from the Y generation. The paper includes an assumption that the popularity of CSR practices in the employee area changes in relation to the growing proportion of the representatives of the Y generation in the structure of the employed personnel. In connection with the assumption formulated in the first section of the herein paper, a brief description of the representatives of the Y generation with regard to their functioning in the work environment is presented. Subsequently, the issues of CSR practices were discussed with particular emphasis on those that are associated with the work area. The next section presents the results of the analysis of CSR practices in the field of work included in the reports of the Responsible Business Forum in 2011-2016.

Keywords: CSR practices in the employee area, generation Y, generation management

Introduction

Since 2013, a systematic decrease in unemployment has been observed in Poland, which forces employers to change their attitudes and actions in relation to employees (Mazurkiewicz 2016, p. 10-12). These changes also influenced the scope of CSR practices, especially among the employees. Organizations have shifted their attention to initiatives that aim to increase employee engagement, improve communication between employer and employees, strengthen the role of leadership and ways to manage teamwork. At the same time, it should be emphasized that the forms of these activities are changing, adapting to the evolving expectations of employees. It results not only from the situation on the labour market (employment market), but also from the massive participation of the Y generation in the work environment. Employees of this generation are increasingly involved in the performance of managerial functions, which affects the business model of companies and their CSR practices in the employee area. Hence, changes in personnel management observed in organizations include: transformations in incentive systems, flattening of organizational structures, switching to remote work systems, selection of non-financial benefits, work space arrangements, recruitment methods and communication with employees, or work and health safety measures. In order to meet the expectations of Generation Y, these initiatives shaping the image of the employer, are widely promoted using social media and shorten the distance between the organization and employees. In addition, companies with an attractive brand function much more effectively on the employee market, especially with regard to the group of young candidates. In the light of growing importance of the brand's prestige, which is indicated as the most important factor determining the choice of employer, in employee CSR practices, among others, the increase in the importance of employer branding (EB) is observed (Mazur 2017, p. 45).

The aim of the study is to present changes in the field of CSR practices among the employees taking place in Polish enterprises and to analyze these initiatives in terms of their adjustment to the characteristics of employees from the Y generation.

Generation Y in the work environment

Generation Y, also called the millennial generation, the next generation, the digital generation are people born in 1980-1994. The literature emphasizes that although it is not homogenous, its members are typical for different values, attitudes and expectations than representatives of previous generations (Smolbik-Jęczmień 2013, p. 89-97; Kroenke, 2015, p. 91-103; Gadomska-Lila 2015, p. 25-39). The key factor that distinguishes Generation Y from its predecessors is the large impact of information technology on the way of life and work of its representatives. The young people included in its composition are shaped not only by their ability, but above all their willingness to use technological progress. Ys are also gifted with greater flexibility and openness to changes, willingness to learn and

unwillingness to make long-term commitments than with previous generations, and these features have to be adapted to the rapidly changing environment. Millennials are people oriented to development, expecting new challenges and opportunities for gaining new experiences as well as incorporating their interests. In a millennium environment, it is important to collaborate, receive frequent feedback from colleagues and supervisors, as well as an open work relationship based on open relationships. The social working environment, with particular emphasis on the manager's role as a leader, is also important for employees from generation Y (Motywacje Młodych 2015; Gołuchowska 2017, p. 37).

Undoubtedly, the generation Y is a challenge for modern organizations, because along with it there are changes that seem to be necessary to effectively and efficiently manage human resources (Stachowska 2012, p. 46-47; Robak 2015, p. 70-82). For many managers this means an urge to review the solutions used so far and to look for new answers to the questions: how to recruit, motivate, evaluate the results of work, and how to shape career paths using the potential of people from the Y generation? The answer to this challenge may be the practices of socially responsible companies oriented at employees.

CSR practices in the context of shaping the employee potential

Corporate Social Responsibility (CSR) has no unambiguous interpretation in the literature or in practice. In addition, a clear evolution of the interpretation of this concept is observed. In the analysis of the issue, it seems reasonable to adopt a point of view based on motives guiding the economic operators implementing this idea. Many authors, when presenting the notion of CSR, emphasize the need to broaden the objectives of the organization more than only in terms of economic interest, complementing them with social and ecological aspects, as well as building dialogue with involved parties (Zuzek 2012, p. 197-207). R. Spaemann brings the actions of a socially responsible entrepreneur to: eliminate or weaken conflicting interests in the organization; securing employee satisfaction; caring for the welfare of our society; protection of the natural environment and care for the good of humanity (Walkowiak, Krukowski 2009, p. 11). The scope of activities undertaken in the area of CSR depends mainly on the answer to the question of whom the company is responsible for. This subjective approach is related to the fact that organizations interact or have interdependencies with various social groups which's interests may be in conflict with each other and even with the objectives of the enterprise (Wołoszyn, Stawicka, Ratajczak 2012, p.13). A particular area of potential contradictions is the employee sphere. The increasing number of practices aimed at reconciling these contradictions indicates the growing importance of the human factor in the organization and the conviction that it is necessary to develop the employee potential found within the organization. Therefore, socially responsible employers emphasize the constant development of employees, shaping safe, healthy and comfortable working conditions, ensuring balance between personal and professional life, creating an inspiring workplace, dialogue with employees and non-organizational forms of employee activity. The selection of these practices is conditioned by the expectations of the employed, which is particularly evident in relation to the employees of the Y generation who clearly declare their needs.

Methodology

Characterizing the basic terminological issues related to the subjects discussed in the paper refer to the respective literature. On the other hand, when analyzing the solutions used by Polish companies in the field of CSR, the desk research method was used. By presenting good practices information from The Responsible Business Forum (RBF) reports were used. RBF is the largest NGO in Poland addressing the concept of corporate social responsibility in a comprehensive manner, with the longest tradition in Poland, operating since 2000. The Forum is a think-and-do-tank that initiates and partners in key activities for the Polish CSR. Available studies have selected those reports that refer to cyclical surveys, which allow you to trace the changes over the past years in the practices of employers regarding CSR practices and answer questions: What has changed in Polish CSR work related practices in recent years? Do companies more appreciate the importance of them and understand how this translates into the ability to attract employees from Generation Y?

RBF prepares reports analyzing CSR practices since 2002, with changes in the reporting methodology leading to standardization of results enabling comparison between them since 2011. This is due to the fact that the ISO 26000 standard was introduced in 2010, which addressed the issue of corporate social responsibility in a comprehensive manner. The standard categorized the organizational CSR practices undertaken, creating a universal and acceptable at the international level the catalogue of CSR requirements. Standard 26000 has created a bridge between the management of social responsibility and standards and initiatives concerning specific CRS issues, on which companies can shape themselves. Good organizational practices presented in the reports have been divided into the following categories: organizational order, human rights, work practices, environment, fair operating practices, consumer issues as well as social involvement and community development. This study focuses on the analysis of CSR practices in the area of employee aspects in 2011-2016. The 2016 report is the last available.

Changes in CSR practices in the employee area

The responsible business forum, when preparing reports, is based on applications from organizations whose practices are verified. In 2016, applications for 180 companies were qualified for the report, which is one fourth more than in the previous edition. This increase in applications proves the growing popularity of CSR practices in Polish enterprises and at the same time an increase in the importance that companies attach to building their brand by promoting initiatives undertaken in this area. Reports reveal not only the increase in the number of companies engaging in such activities, but also the development of forms and types of practices, including in the field of employee CSR. Table 1 presents a list of good practices of responsible business in Poland in the area of employee aspects in 2011-2016.

Table 1. A list of good practices of responsible business in Poland in the field of employee aspects in 2011-2016

Area of activities	Number of companies declaring practice in a given year and in a given area of activities					
	2011	2012	2013	2014	2015	2016
Adaptation and integration	5	6	-	-	-	-
External communication	1	-	-	-	-	-
Health and safety	21	12	7	14	22	39
Trainings and development	9	10	9	13	23	27
Company friendly to parents	4	4	4	9	4	10
Employees participation	4	-	3	5	6	12
Health and active lifestyle	8	7	13	-	-	-
Employees' volunteering	13	10	12	13	12	46
Flexible forms of work	-	1	-	-	-	-
Dialog with employees/employees' participation	-	6	-	-	-	-
Work-life balance	-	5	2	1	3	5
Dialog with employees	-	-	5	3	-	4
Recruitment and adaptation	-	-	5	1	3	7
Employees' integration	-	-	3	6	8	11
Support for the employees	-	-	1	7	4	9
Counteracting abuse in the work environment	-	-	-	2	6	3
Employees' health	-	-	-	8	22	29
Employees involvement	-	-	-	-	-	3
Total	65	61	64	82	113	205

Source: Report Responsible business in Poland. Good practices, Responsible Business Forum, Warszawa, 2011, 2012, 2013, 2014, 2015, 2015, 2016. <http://odpowiedzialnybiznes.pl>

In the reports from the analyzed period, a total number of 18 areas of activities related to CSR work field practices appeared. In these areas, the most organizational practices were associated with employees' volunteering, workplace security (health and safety), employee training and development, and activities to support parents. At the same time, it should be emphasized that over the years, both the nomenclature of activity areas and their grouping have changed. Some of the areas appeared in the reports incidentally, such as internal communication or flexible forms of work. Others only changed their name, such as "health and active lifestyle" to "employees' health" or "dialogue with employees / employee participation" to "dialogue with employees". It seems that 2014 was a breakthrough in terms of the number of initiatives reported by organizations, since this year their progress is visible in most categories. It should be emphasized, however, that in 2016 an almost 100% increase in the number of activities in the field of CSR was noted. This year, enterprises were particularly keen to implement projects in the area of employees' volunteering, workplace health and safety, employees' health, as well as training and development. It should also be noted that there is also a new category of activities aimed at shaping employees' involvement. Analyzing the above structure of organizational practices, it is difficult to distinguish those categories that would specifically refer to representatives of the Y generation. Therefore, a detailed review of individual employee CSR initiatives was made to identify those that, due to their content and form, best meet the needs and the expectations of this generation of employees.

Discussion

Considering individual organizational practices, it was observed that some of them are addressed to the youngest employees. This can be confirmed by, among others, the greatest popularity of projects based on employees' volunteering. It takes the form of following activities: fundraising for charities; renovation and construction aid for institutions such as orphanages, nursing homes, hospices; work in animal shelters; organization of local events with the participation of residents; initiatives aimed at children and youth, including those with disabilities; organization of sports competitions and tournaments, or activities to protect the natural environment. Regardless of voluntary activities undertaken, the importance of the employee initiative and the teamwork values that emerge during their implementation are highlighted. Such a form of volunteering is consistent with Ys' expectations regarding taking into account and appreciating their ideas reflecting the values typical of them. Employee volunteering, apart from the CSR impact typical for CSR, has a very strong impact on the shaping of employee attitudes. It teaches working in a team, integrates with colleagues, supports communication, gives a sense of subjectivity, even to regular employees, and teaches commitment in the process of achieving the set goals.

Another category of workplace safety, which is so important for the employer, increasingly takes forms far from traditional trainings in the field of occupational health and safety. Currently, they engage employees in the processes of conscious recognition of threats appearing in the workplace through: meetings organized in a relaxed atmosphere, referring to the situations appearing at work, threatening the health and life of the employee; opportunities to submit ideas to improve work safety, or organize occasional events that, on the one hand, integrate employees and their families with the company, on the other hand, they shape attitudes leading to the preservation of safe behaviours. Also, the classical area of employee training takes a different form of trainees from the recently-dominant ones. Passive acceptance of knowledge is replaced by an interpersonal, intergenerational and inter-team exchange of knowledge, experience and skills. This is accomplished by using IT tools dedicated to this task (eg special applications, intranets, discussion forums, etc.) and organization of meetings, in which the distance resulting from the organizational structure and age difference is blurred. Such forms of practice correspond to the need of Ys to use modern technologies and to shape free employee relations, which favours the acquisition of knowledge in an attractive form for Ys.

Modern technologies are also used in practices in shaping employee engagement and employee integration with the company. The tool in the form of gamification in an attractive technological way gives the employees of the Y generation content and information on the strategy, mission, values and ways of operating the company. And through the organization of events in which also the employees' relatives participate, the employee's bonds with the employer are strengthened.

The employee's family is often the subject of CSR practices in the area of shaping the balance between work and private life. Employers meeting the needs of young parents not only support them financially (eg baby money, subsidies for children's rest) but also help in fulfilling parental functions (eg special rooms for mother and child work, additional days off, kindergarten for children of employees, care organization for children during holidays, etc.). Employers' offer in the scope of WLB includes also the perception of the private passions and interests of employees and support them in the implementation of this sphere of life (eg co-financing of various forms of extramural education). Initiatives to promote work-life balance also take the form of pro-health practices. In this area, employers offer a wide range of activities ranging from preventive examinations and the possibility of using the services of specialist doctors, through workshops promoting a healthy diet and a healthy way of life, supporting recreation and sports activities, to benefits that increase wellbeing and wellness of employees. The above practices perfectly fit into Ys's need to balance work, life and the need to care for a healthy lifestyle.

In the light of the analysis, it is clearly visible how organizational practices in the field of corporate social responsibility change, taking into account the increasingly clear needs of the youngest generation of employees. The large variety of practices presented in the reports indicates that employers are aware of the need to match their initiatives to employees' expectations and look for new solutions that are attractive to demanding employees from the Y generation.

Conclusion

The study of reports collecting the practices of Polish enterprises in the field of CSR confirmed the assumption that the popularity of CSR practices in the employee area is changing in connection with the growing share of representatives of the Y generation in the structure of employees.

A detailed analysis of CSR practices in the field of work revealed that some of them, such as initiatives in the area of involvement or integration, although used in personnel management for long time, are now typically addressed to employees of the Y generation. Activities carried out by organizations often take forms involving employees on both the stage of initiating projects as well as their performance. This favours building an attitude of loyalty towards the employer. In addition, the practices are promoted both, internally and externally using social media, which is to create a strong employer's brand. In this approach, an attempt is made to match the activities of companies to the needs and expectations of employees from Generation Y, who pose a challenge for the organization in the context of obtaining and maintaining the staff. Another argument confirming a kind of "bow" of enterprises made towards Ys constitutes in resigning from rigid solutions adopting a formal character in favour of initiatives emphasizing the free shaping of employee relations. It is also important to provide Ys with the opportunity to make choices and initiate actions consistent with their beliefs. Emphasizing ethical and ecological aspects of work and life in organizational practices also confirms changes in employee CSR activities in the direction of matching them to the characterization of Y generation.

The discussed issue, in the context of transformations on the labour market, is undoubtedly valid and requires further research exploration that would help organizations face the challenges posed by the generation Y workers.

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ORGANIZATIONAL BENEFITS OF KNOWLEDGE SHARING BEHAVIOUR

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Abstract: Knowledge Sharing (KS) as a form of employee behaviour is beneficial to an organization for many reasons. Thanks to such behaviour, organizational knowledge grows and the organization itself is more efficient and effective. One should not forget, however, that sharing knowledge is also an important contribution to the employees' individual and sustainable development. In this situation, the creation of a working environment that would facilitate knowledge sharing behaviour seems to be very important. The purpose of this paper is to present the results of the research in the context of the afore-mentioned problems and to try to demonstrate the relationship between social and organizational factors characterizing employee and the working environment in which the exchange of knowledge is supported.

Keywords: knowledge, knowledge sharing, human resource management

Introduction

Knowledge today is undoubtedly for many organizations an important factor influencing their development and market success. Knowledge, however, is integral part of the person who possesses it, interprets, implements and develops. Therefore according to McShane and Glinow (2004, pp 98-127) Knowledge Management (KM) must be analysed in the context of staff management challenges and issues such as the work environment, employee behaviour, motivation, engagement, satisfaction or emotions. Knowledge Sharing (KS) as a form of employee behaviour that can be beneficial to the organization. Thanks to such behaviours, organizational knowledge is growing and the organization itself is more efficient and effective. One should not forget, however, that KS is also an important contribution to the development of individual employees. Knowledge that is shared within the organization is very diverse. Not only in case of employees' tasks but also in terms of organizational values, norms, promoted behaviours, ways of dealing with problems in the work environment, etc. Reflecting to such division and understanding of knowledge, one can assume that KS is an important factor for employees' sustainable development. In this situation, the creation of a working environment that would facilitate KS would be very important.

KS sometimes is misunderstood with Information Sharing (IS). Usually, knowledge and information are treated interchangeably. Knowledge is defined as the accumulation of basic knowledge, technical and social skills (Szczepańska, 2004, p.37). Knowledge in some publication means also stored (accumulated) and appropriately structured information (Jabłonski, 2009, p.16), therefore knowledge is a state in which information may be (Dziuba, 2000, p.45). With this approach, the distinction between knowledge and information becomes blurry (Wang, Noe, 2010). The only distinction between these terms is the fact that the transformation of information into knowledge takes place in the human minds through a process of judgment, understood as identification, analysis and interpretation (Jabłonski, 2009, p.16). It should be yet emphasized, that terms such as data, information and knowledge should be differentiated (Probst et al., 2002, p.27). Knowledge is a result of complex process of some elements transformation. Knowledge is dynamic and open when information is closed and static (Jabłonski, 2009, p.16).

Nonaka and Takeuchi (2000), Lin (2008) and Davies et al. (1998) underline that in the idea of learning organization for the organizational development, success or even survival, the organization must not only effectively process knowledge but also generate it. Learning organization is defined as an organization that constantly expands its possibilities to create their own future (Mikuła, Stefaniuk, 2013, p.110). As Senge (2006, p.163) points out: "organizations learn only through individuals". Even though, that acquisition of knowledge by personnel and the process of learning, do not guarantee that the whole organization will learn, without learning of individuals and using their potential (Reychave, Te'eni, 2009), no organization can learn. learning is a conscious process, which takes four forms: one's own experience, the experience of others, learning by incorporating new knowledge (from experts and specialists) and generation of knowledge in the SECI process (Nonaka, Takeuchi, 1995, pp.57-60;

Heng-Li Yang, Wu, 2008) what can be compared to four stages of knowledge acquiring: socialization, externalization, combination and internalization of the latter (Makselon 2007, p.159).

Speaking of a learning organization, the organization itself develops through its employees that must go beyond the passive attitude and become active in application of knowledge (Gonen et al. 2009). These processes are conditioned with their personalities, social skills and emotional competencies (Grandey, 2000, p.95), substantial preparation and activity networks (Rolland, Kaminska-Labbé, 2008; Burke 2011), as well as the organizational work environment. The specific role of the social environment should be understood as relationships in the workplace (Robak, 2012; Robak, Słocińska, 2012).

There are many aspects to be considered in the analysis of knowledge sharing in organizations. At the organizational level, there are undoubtedly such aspects as national culture, power, technology, organizational capability, organizational climate, social structure, and at the individual level one can point out such aspects as motivation (Banks, 1997, p.3; Gray, 2001:1), trust (Davis, Nestrom, 1985, p.109), social capital, self-efficacy (Rain, 1991, pp. 287-307), outcome expectation or absorptive capability (Heng-Li Yang, Wu, 2008). Not all of them, although seemingly trivial, have serious implications in management issue (Wiig, 1997). However diagnosis of following issues, opens a list of problems that must be coped by an organization if it wants to stimulate this type of behaviour.

Another determinants of behaviour in the field of knowledge sharing can also be the conditions of employment and job satisfaction. That what bring us to the issues of motivation. Work motivation is something that drives employees to exploit their expertise as well as skills in order to use them in an effective way during the process of handling tasks and assignments (Clark, 2003). It can be described as power which creates, drives and maintains the employment of worker's knowledge. Work motivation is always a major component of a good achievement on condition that it has a strong connection with knowledge which have to be combined in positive work surroundings (Baldoni, 2005, pp.1-15). In relation to workplace, it has to be stated that even the greatest methods of motivation are not able to enhance efficiency without appropriate knowledge (Lauby, 2005, pp.8-11).

The issue of KM is closely linked to the operation, productivity, creativity and innovation. Knowledge owned by the organization and its members is the very heart of the organization. It is a potential that can be exploited and used for building a competitive advantage, provided it is diagnosed, located, developed, and will be multiplied by its permanent exchange. At each of these stages there are psychological, social and organizational problems which determine their effectiveness.

The aim of this study is the analysis of selected social, psychological and organizational aspects determining the increase of the frequency of knowledge sharing and behaviour.

Methodology

For the research purpose 250 employees of Silesian Voivodship were selected at random. From this sample 195 questionnaire forms correctly filled in were obtained. In the selection sample was used a method without returning. The research was conducted in 2017 on the group of people from the area of Southern Poland (table 1).

Table 1. Sample characteristics

Features	Number	Percentage
<i>Sex</i>		
Female	115	58,97%
Male	80	41,03%
<i>Age</i>		
Under 25	43	22,05%
26 -35	61	31,28%
36 -45	46	23,59%
46 -55	22	11,28%
56 or above	23	11,79%
<i>Seniority</i>		
Under 1	22	11,28%
2 to 5	43	22,05%
6 to 15	61	31,28%
16 to 25	39	20,00%
26 or above	30	15,38%

<i>Education</i>		
Basic	2	1,03%
Basic vocational	32	16,41%
Secondary	56	28,72%
Secondary vocational	11	5,64%
Incomplete higher education (Bachelor, Engineer)	32	16,41%
MA	62	31,79%
<i>Position</i>		
Worker	80	41,03%
Line manager	19	9,74%
Middle-level manager	19	9,74%
Expert	42	21,54%
Independent position	2	1,03%
Other	33	16,92%
Sum	195	100,00%

Source: own study

The research was aimed at determination of knowledge sharing behavior. Questionnaire was originally created by the paper's author. The respondents were asked to give their opinions about 28 statements, their opinions were expressed in range between 1-5 where 1 meant „I fully agree”, 3 – „neither agree, nor disagree” and 5 meant „I fully disagree” with a statement.

For examining the connection between variables and respondents statements it was used the chi-square test which lets verify the zero hypothesis about the independence of two variables X and Y, towards the alternative hypothesis, according to which the variables X and Y are dependent (Białek, Depta, 2010). In order to determine the power of the relation of features a C-Pearsona index was applied. This paper contains correlation coefficients statistically significant on the level $p < 0.05$. This criterion made the authors focus on correlations with significant influence and only those have been analyzed herein.

Results

There are many correlation coefficients statistically significant on the level $p < 0.05$, these who were revealed give us some clues in terms of analyzing sharing knowledge environment factors.

It is interesting that for many statements, no correlation was found with variables such as gender or age or seniority. Regarding the statement regarding whether there are people in the organization who are particularly often asked for help in terms of performed tasks, a dependency was found in the light of which these opinions are conditioned by the type of organization - public sector, commercial companies (Pearson's ratio at level 0, 193874) employing the surveyed. In public sector organizations, this type of behavior is less frequent. Particularly a lot of connections between independent variables and answers provided to the respondents was observed in relation to the statement: In the company people help each other in the implementation of tasks. The statements correlate with the gender variable (0.161596), the level of education (-0.174559), seniority (0.164158) and sector (-0.216155). Women more often than men declared acceptance of the said statement, just like people with higher education levels. On the other hand, in relation to seniority, these relationships were opposite, namely older employees less willingly pointed to providing mutual assistance. With regard to the sector, a special type of cooperation reluctance was observed in commercial organizations.

There was also a statistically significant relationship in relation to the question regarding places in the organization (organization of the physical working environment) in which employees can spontaneously meet with other employees and talk about work and the level of education (-0.158884). The higher the level of education, the more often employees agreed with this statement.

The respondents were also asked if they like to work in their companies and whether they feel "as in a family" in them. In this case, statistical dependencies were revealed in relation to gender (0.159687) and sector (-0.174736). Women more often than men declared such attitude to the organization employing them as well as employees of public organizations. In commercial companies, the respondents' statements were also reported less frequently confirming that in the company they can talk freely and openly about everything (-0.13759).

The employees' answers to the statement are particularly interesting: I share knowledge only with those I trust. In relation to this statement, there were observed dependences with age (-0.177754), level of education (0.197571), seniority (-0.217758) and the sector in which the organization operates (0.332150). Older and older employees with lower education and representatives of the private sector more often confirmed such attitude towards behaviors in the field of knowledge sharing.

Discussion

The research results indicate that the most important factors determining behavior in the field of knowledge exchange are age / work experience, education level and the sector in which the organization operates.

The specific attitude towards knowledge as a resource that builds an employee's advantage and ensures continuation of employment is represented by low-qualified older people and senior employees of the commercial sector. Despite the rapid changes in the labor market that reveal a progressive generational gap in relation to many jobs and types of work in the field of low-qualified jobs, the fear of losing a job is still considerable. The reluctance to share knowledge may also arise, beyond the objective situation on the labor market, which seems to be beneficial for the analyzed group of employees, the fact that for many years they were at risk of losing their job. They treat their knowledge as a bargaining element in negotiation related to employment. Probably they are not also taught to represent this type of attitudes. Sharing knowledge is related not only to learning skills but also to teaching - that is, transferring knowledge in a way available to its recipient. With regard to the criterion of trust as the most important factor in the process of knowledge exchange between employees, the role of the organization responsible for shaping the atmosphere of openness and cooperation responsible for building proper relations in the work environment seems to be important. It seems that research results beneficial for public organizations are not the result of planned activities of management or managers, but rather result from different long-term employment conditions, which give employees a sense of security and eliminate attitudes of competition.

Conclusion

The research results presented in this study are fragmentary and reveal only a fragment of the research carried out. The obtained results, however, seem to be so interesting that the research should be carried out again in a broader substantive scope and in terms of sample size. Analysis of factors that condition behaviors in the field of knowledge sharing seems particularly important in the context of the growing popularity of this type of issue, generational change for generations characterized by a different non-rival attitude towards the knowledge resources and activities that organizations can and should take to make such behavior multiply.

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EMPLOYEE VOLUNTEERING AND BUILDING EMPLOYEE ENGAGEMENT

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Abstract: The aim of the study is to indicate the impact of employee volunteering as an element of internal CSR on shaping employee engagement. The research presented in the article is based on secondary data. According to the research results, employee volunteering is an increasingly indicated form of CSR practices in the field of work. On the one hand, a volunteer represents the company and as an employee is involved in activities for the benefit of its interest, but on the other hand, he/she is part of a community (a resident of a housing estate, a district, a commune). As a member of this community, he/she uses social and educational infrastructure, pursues his/her passions, interests or satisfying other important needs.

Keywords: CSR, employee volunteering, engagement

Introduction

In the light of the report "European HR Barometer. Trends and Perspectives on the HR Function in Europe 2013-2015" implemented by AON Hewitt (*Kluczowe trendy* 2014, pp. 24-33), international companies willing to acquire the most talented people from the market attract them, among others, through declarations regarding taking actions for Corporate Social Responsibility (CSR). Companies engage in CSR, because they recognize this kind of activity as an effective method of building brand awareness, creating a positive image of the company, and increasing its attractiveness among employees and customers. These activities can also be related to the impact on employee involvement, which was measured systematically by 64% of respondents in the companies' report.

Practitioners point to the role of engagement in increasing work efficiency, building a positive image of the organization both among external and internal stakeholders. Thanks to systematic initiatives in the field of employee engagement and their satisfaction, organizations may not only learn the direct dimension of these attitudes, but also recognize issues that affect their perception. This knowledge allows you to improve areas that affect the understatement of employee engagement and satisfaction. At the same time, involvement as one of employee attitudes is not only a factor correlating with the employee's sense of satisfaction, but also has its measurable economic impact from the point of view of the employer and employee. Attitudes of employees (such as: satisfaction, commitment, loyalty, responsibility) are defined as views, feelings and reactions in behaviours that a person presents in relation to other people, objects or events (Biettel 2002, p. 62). S. P. Robbins (Robbins 2004, p. 50) defines attitudes as positive or negative evaluations of objects, people or events. The importance of the previously mentioned employee attitudes, and in particular commitment, is growing especially in relation to crisis situations, atypical or in the context of introduced organizational changes (Stasiuk 2012). In these conditions, the employee is expected not only to behave in a standard, routine manner, but rather to fully activate his/her own knowledge, skills and social competences to solve organizational problems. These expectations are the result of complex processes resulting from: changes in employment structures (Handy 1998, pp. 79-86) and organizational structures (Czarnecka, Słocińska 2010, pp. 287-296), reduction of employment durability (Ratajczak 2007, p. 22), generational exchange (Horner, Jones 2003, p. 11), changes in employee roles (Bugiel, Haber 1994, pp.19-20) (an employee becomes a member of the organization, not just a hired labour force), changes in attitudes towards work, expectations towards it and its place in the life of employees (Robak, Słocińska 2013, pp. 105-118), and as a result of changes in psychological contracts related to employment. As a result, the standards of employees' behaviour in organizations are also subject to transformation.

One can also look at CSR issues as a collection of different ideas with noble intentions, or as a coherent theory and a set of proven practices that have a positive message (Baron 2001, p. 7-45). However, CSR, typical for its strong links with Public Relation (PR), also has a "dark side" in it. The so-called black CSR is defined as activities undertaken by the organization with the intention of

achieving only its own benefits, or actions applied partly in violation of moral and ethical principles (Kozojć 2012, pp. 35-48). Such initiatives will not positively affect commitment, on the contrary, their impact will be demotivating (Adla, Gallego-Roqueleure, 2018).

The aim of the study is to indicate the impact of employee volunteering as an element of internal CSR on shaping employee engagement.

CSR essence of the issue

Corporate Social Responsibility is a complex and comprehensive management concept. Maturity in the approach to CSR is related to the planning and implementation of activities covering various areas of the organization's functioning. Charitable activity, to which organizations refer so eagerly in the context of CSR, cannot be considered equal to the way of managing a socially responsible organization, as it is only a fragmentary example of activities in a wide range of advanced practices. CSR is an idea in the light of which organizations in their activities voluntarily take into account social interests, aspects related to environmental protection and relations with various groups of stakeholders (Pęciłło 2011, pp. 19-21). In the light of the CSR concept, stakeholders are considered to be all entities that can influence the company's operations and, at the same time, are themselves affected by it (Pęciłło 2011, pp. 19-21). From the perspective of the organization, the International Standard for Corporate Social Responsibility - ISO 26000 - can be regarded as specific guidelines to the CSR concept (Polska Norma 2012) such as the Agenda for Sustainable Development 2030 and its Sustainable Development Goals. Both of these documents emphasize the importance of the human factor in the company's operations. Therefore, it is no wonder that employees are first mentioned among the stakeholders, followed by investors, shareholders, business partners, clients, public and local authorities, non-governmental organizations, and also local communities. The scope of CSR, in simplified terms, can be reduced to two dimensions: internal directed primarily at the employees of the organization and external one directed to the natural environment, society or the broadly understood market (Wołowicka, Dąbrowski 2012, pp. 79-89). Of course, the division between the above-mentioned dimensions is relative, as employees are, for example, simultaneously members of local communities, consumers, users of the natural environment and have a real influence, through electoral rights, on authorities, especially local ones. Not surprisingly, in the published collation of the most frequently cited practices in the field of corporate social responsibility, the employment dimension is increasingly emphasized.

Methodology

For the purpose of analyzing the subject of the study, the data contained in the report entitled "Responsible business in Poland 2016. Good practices". It was divided into seven areas, which for comparative purposes were defined in accordance with the guidelines of ISO 26000. The report included good practices in the following areas: organizational order, human rights, workplace, environment, fair operating practices, consumer issues and social involvement, and development of the local community. Activities related to employee volunteering are discussed in the part describing employers' initiatives in the field of work.

Results - review of practices

As part of the "Responsible Business in Poland 2016" Report (*Raport: Odpowiedzialny biznes w Polsce 2016*, pp. 48-53) a number of job descriptions in the field of employee volunteering were collected. An example is the Application for Volunteers of the *Orange Foundation*. The application provides access to current and archived projects and volunteer profiles. It allows one to add projects and invite new volunteers. They can join selected initiatives in the area of interest such as: teaching, animating children's free time, you also repair work or time ("I have an hour or the whole day") and the date of the event and the place of the action (town and organization). In this way, the coordinator has access to current statistics where and when the projects are going on and how many volunteers take part in them thanks to which he/she knows whom to insure and to whom send eg. T-shirts or other

necessary materials. Through the application one can also quickly collect the results of the summary questionnaires. In turn, the *ANWIL* company has a team for employee volunteering, which, after analyzing the proposals of actions proposed by employees, with regard to the substantive content and technical capabilities of implementation, decides about its acceptance. As part of the team's activities, there were made collections for following purposes: care and education centers, shelters for animals and people, recreational and animation activities for children with community halls, as well as renovation and cleaning works for various beneficiaries.

Another project of volunteering was offered to its employees by *Kompania Piwowarska*, who supported the "Noble Package" Action, which is becoming more and more popular in Poland. The company announced recruitment for leaders who took part in the training in the field of motivation and cooperation in the group, and then completed volunteer teams. Together, families or individuals were selected from the Noble Package Database and parcels were prepared. A significant incentive to join the project was the fact that every employee reporting their share received PLN 100 from the company to prepare the parcel. An important aspect of participation in the campaign was the support of volunteers for members of their families, friends, acquaintances or business partners. Fundraising for the needy is also an element of employee volunteering offered by *Jet Line*. Employees took part in clothing collections, household appliances, things for animal shelters, food and money for former Polish soldiers living in Belarus.

Employees of the *BAYER* Warsaw and Gdansk branch, every year on the occasion of the International Deaf Day, visit the charges of the Society for the Care of the Blind in Laski and the Center for the Deaf in Wejherowo. During these visits, both the hosts and guests jointly participate in cultural activities and cleaning and gardening in the centers. Volunteers thanks to their regular activities, donated funds for equipment and subsidies for the activities of these centers. Organizing and participating in cultural events has become the subject of volunteering proposed by *HEWLETT PACKARD ENTERPRISE*. The company's volunteers in cooperation with the European Capital of Culture Office together with representatives of the artists' environment co-created a map of places of interest for foreign guests. The *HEWLETT PACKARD ENTERPRISE* company also organizes the "Senior" project in cooperation with the Wrocław Senior Center. Volunteers conduct computer training and language courses for local seniors, and during the summer break they also organize guided walks. Moreover, elderly people during the Senior Days visit the company's headquarters and take part in art and movement workshops. *Citi Handlowy* also focuses its voluntary activities on older people by socializing seniors and giving them the opportunity to share their life and professional experience.

Credit Suisse gives the opportunity to use four full-paid free days per year for participation in over 15 employee volunteer programs. In turn, employees of *Saber Polska* once a year have the opportunity to become volunteers during their regular work hours, carrying out activities for charities and local communities (beneficiaries are: children from orphanages, seniors from nursing homes, homeless people, children from a local kindergarten and homeless animals).

Volunteers from the *FAMUR Group* and the *KOPEX Group* as part of the project "Activity Mine" has undergone a series of training in team work and analysis of social problems that facilitated their preparation of original social projects. Apart from business representatives, non-governmental organizations were included in the implementation of these projects, and the ventures themselves concerned subjects related to driving safety, ecology, music, education and sport.

The idea of a volunteering program "We operate and support" realized by *DeHeus*, was primarily a desire to integrate employees and strengthen their identification with the company and the local community. This effect was achieved by carrying out educational activities for over 250 children, in which 10% of the company's staff were involved. Children also became beneficiaries of the grant program "I have a good idea. I am helping" proposed by *PKN ORLEN*. The volunteering projects submitted by the employees obtained co-financing from the company, and mainly involved activities in the field of renovation and construction works (construction of a football pitch, works for the community center in Reszel), organization of sports competitions and tournaments and thematic workshops (organization of a sailing picnic) addressed to children and young people, including those with disabilities or poor families. The Bethlehem Orphanage in Wolbrom for children at risk of social exclusion, has become the concern of volunteers (managers) of *SumiRiko Poland*. They organize thematic workshops " Kids from our orphanage" concerning, inter alia, national holidays, handicrafts, Japanese culture or referring to Christmas.

Azoty PUŁAWY Group, as part of employee volunteering co-financed projects submitted by volunteering teams (minimum of three employees), allocating PLN 5,000 for each of them. Volunteers carried out projects during their free time, on a voluntary basis, on their own initiative and without remuneration. The *GPEC Group* implements projects similar in nature, for orphanages, hospitals, hospices, special schools or animal shelters are subsidized. Similar approaches in the field of volunteering were proposed by *Grupa LOTOS* for its employees. Subsequent editions of the "Minigrant Program" under the Volunteer Program included projects implemented by teams (minimum of three employees) under the supervision of a leader who could additionally count on mentoring and advising at every stage of project implementation with a value not exceeding PLN 3,000.

An interesting offer of voluntary activities was offered by *Sanofi*, whose main distinguishing feature was based on the principle of competence volunteering, that is mutual interaction, when volunteers learn new things in exchange instead of people they support. For example, the "Around the table" project included cooking with children and adults together with the transfer of the principles of healthy and rational nutrition; "All Praga Sings" includes activating seniors with reference to their memories, culture and traditions, in the form of singing and organizing concerts of a group of seniors from Warsaw's Praga district; "Home. A project about the home space of older people", where, based on information about the lives of seniors, volunteers came up with solutions and prepared objects that would make life easier for them; "Grow WAW" - a project involving the development of a graphical map of the unique green places of Warsaw, which is also a walking guide; "Autentyzm" is an action in which volunteers prepared family photographs and foundations for creating a family tree. Competent employee volunteering program "First aid - premedical rescue" was offered to its employees by the *Enea Group*. The project is aimed at employees, children and participants of organized events who want to expand their knowledge in the field of first aid.

ANG Cooperatives Credit Cooperative Cooperators support the charges of the Foundation named: "I'll be whoever I wish to", sharing their knowledge and experience on the basis of tutoring. Also, the previously mentioned *HEWLETT PACKARD ENTERPRISE* helps volunteers organize open workshops and trainings, where they provide their knowledge in the field of effective preparation and participation in recruitment, giving the opportunity to participate in business games, creativity workshops and sessions in English about building a career.

Discussion

Employee volunteering (Forum Odpowiedzialnego Biznesu, 2017) is an increasingly often indicated form of CSR practices in the field of work which attracted the attention of researchers already in earlier years (Dailey, 1986). On the one hand, a volunteer represents the company and as an employee is involved in activities for the benefit of its interest, but on the other hand, he/she is part of a community (a resident of a housing estate, a district, a commune). As a member of this community, he/she uses social and educational infrastructure, pursues his passions, interests or satisfying other important needs. Sometimes he/she is even a member, sympathizer or volunteer within various local entities (social organizations). Finding a common element for both of these dimensions of the employee's functioning creates a space for employee volunteering. As a member of the community, the employee experiences certain difficulties on a daily basis, and therefore most accurately defines the needs that this community feels. In this case, the role of the organization is to listen to the needs of their employees and their ideas for action. Sometimes the employee does not identify strongly with his/her community. It may be the result of the phenomenon of mobility, and hence frequent changes of place of residence and changes of the workplace. In the case of this type of employees, one can observe the willingness to undertake various social activities, which they are not able to channel independently. With regard to this group of employees who do not feel attached to any local community, the organization should take over the role of a volunteer coordinator pointing to potential social partners with whom the employee can establish cooperation. What is important, as research shows, employees are willing to join projects if they can work alongside colleagues. The operation of the volunteering program in the company also has a positive effect on the teams of employees. It develops cooperation skills, increases the sense of integration and arouses commitment. In addition, the employee - a volunteer becomes a company ambassador operating in a given community.

Analyzing the statements of employers combining employee volunteering and building attitudes of engagement, the question arises whether it is reasonable to apply the principle of automaticism where stimulating employee involvement in the non-professional sphere translates automatically into commitment to work. Undoubtedly, such simplification cannot be used, as employee involvement is mainly shaped by environmental factors related to the workplace. However, employee volunteering provides opportunities for integration and communication with other employees and supervisors, who open an employee to changes in his/her behaviour and "infect" with an attitude of commitment. The review of practices in the field of employee volunteering also proves the great creativity of employers regarding the forms of initiatives undertaken. It is clear that such projects are media-carrying and build a positive image of the employer. Thanks to this, socially active organizations attract candidates ready to engage in various types of projects, i.e. those who are equipped with personality traits that are conducive to engagement.

Conclusion

Unfortunately, in the authors' opinions, the estimation of changes that employee volunteering brings for the community and employees is a challenge no less than the implementation of the volunteer program itself. First and foremost, it requires stability of implementation and periodic data collection, both from the communities for which actions are taken and volunteers-employees. A solution for this situation is a wide qualitative approach to volunteering, which apart from changes taking place in the community, also re-orientates the volunteers themselves. Even if the initial motivation of employees is the desire to take a break from work and integrate with the group, the effects of participation in projects include wider benefits. As a result of participating in volunteering, they develop a variety of competences useful at work and even if they are not aware of it themselves, then such a consciousness should have a coordinator on behalf of the employer. One of the key threats to employee volunteerism is routine, or annual mechanical duplication of the same pattern of action with the conviction that it will be equally effective. Therefore, undoubtedly, the issue of employee volunteering is extremely interesting and should continue to be subject to observation and research at the level of the organization.

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PUBLIC-PRIVATE PARTNERSHIPS AND PUBLIC OUTLAYS ON EDUCATION IN OECD COUNTRIES

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Abstract: Our paper presents public-private partnerships (PPPs) as the example of collaboration between the public and the private sectors with the objective of making the system more efficient, innovative and accountable. In education, they tend to bring the government and the private sector together to ensure better quality. Opinions on PPP differ. Our paper presents the views of those who are for and those who are against them by using documentation analysis. The issue of total public spending on education in the EU and its ideal amount are also dealt with. There are debates about who is supposed to cover tuition fees: the governments or the individuals. Although opinions once again differ, we can conclude that either way, it is worth investing in education.

Keywords: collaboration, education, public-private partnerships, public sector, private sector, spending on education

Introduction

Public-private partnerships (PPPs) are collaborations between the public and the private sector with the objective of making the system more efficient, innovative and accountable. The parties take responsibility in implementing a joint programme where each of them has a clear role and a say in how that implementation happens (Blagescu, Young 2005).

In education, they tend to bring the government and the private sector together to assure better quality. OECD defines PPPs as “arrangements whereby the private sector provides infrastructure, assets and services that traditionally have been provided by government.” (OECD 2017, p. 3). Unlike pure privatization, PPPs have a focus on system efficiency, innovation and accountability to improve the quality of service delivery. In their contractual agreements parties undertake sharing a greater level of risks between the public and the private sectors. In contrast, privatization is “the permanent transfer of control, whether as a consequence of a transfer of ownership right from a public agency to one or more private parties or for example, of a capital increase to which the public sector shareholder has waived its right to subscribe” (Wang 1999, p. 11).

Literature review

Most governments, international organizations and other stakeholders in education consider that, by forming a partnership with the private sector, countries can expand their education systems in a more efficient, flexible and effective way (Robertson *et al.*, 2012). Nonetheless, PPPs represent a demanding, sophisticated, and challenging form of governance both for private agents and, especially, for governments (Hodge, Greve 2010). According to Klijn (2010), in both academic and practitioner circles, it is not clear what PPPs exactly mean, so when countries adopt them, they should take what the best form is.

PPPs have become a popular approach in education. Previously, PPPs have also been implemented in other areas such as infrastructure and urban renewal, local economic development, water supply and transportation (Wettenhall, 2003). The main objective of PPPs is supposed to bring the organisational culture of the public sector closer to private sector to make direct state service provision more efficient. However, there is some opposition for PPPs saying that partnerships serve as an opportunity to counter-balance market forces and revert the more drastic commercialization of public services (Kooiman, 1993; Wettenhall, 2003). Since then, PPPs have been regarded as an intermediate approach between “too much state (Keynesianism) on the one hand, and too little state (privatization), on the other” (Robertson, Verger 2012, p. 12).

Material and methods

Private participation and funding in education has increased dramatically over the last two decades all over the world, which serves all types of communities—from high-income to low income families. However, it is still the governments that finance education to the greatest extent (at least primary and secondary education) while in many countries private agents contribute to education with a sizable share. The objective of our paper is to give a brief overview of PPPs in education that are in the centre of debates.

In the first section of the paper literature review is presented regarding PPP's in education. The works of several international authors were analysed. In the second section of the paper statistical data analyses were applied. Data refer to the financial year 2014 and are based on the UNESCO, the OECD and Eurostat (UOE) data collection on education statistics administered by the OECD in 2016. Data from Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa are collected from the UNESCO Institute of Statistics (UIS).

As most data in social sciences are intangible (views and opinions, attitudes) primary data collection could not be carried out so document analysis was applied. The statements at the end are thought awakening but we hope they can contribute to the everyday and scientific debate on public work programmes.

Results and discussion

In the 1990's, PPPs became popular in many developed countries especially in the social sectors. Several associations, research centres and conferences were organized on the idea of PPPs, even international academic journals were created (Wettenhall, 2003). It was also in the 1990s when international organizations became increasingly interested in PPPs and regarded them as an important tool to enhance their 'good governance' in service delivery strategies (Miller, Adams 1999; Miraftab, 2004). Led by the World Bank, these organisations adopted the PPP framework to implement public sector reforms and infrastructure projects, especially in developing countries.

Two different opinions on the role of PPPs

While some argue for PPPs by listing their potential benefits, on the basis of available empirical evidence, these seem to have had mixed outcomes as the negative effects are frequently disregarded. The advocates see PPP as a major innovative strategy of development while others (e.g. Robertson, Verger 2012) question the legitimacy of PPP as a tool of governance, and other critics (e.g. Ginsburg, 2012) position PPP as an instrument that undermines democratic forms of politics.

The *advocates* list three arguments.

First, as governments usually have dire financial sources, PPPs are vital for them to ease financial constraints as the two sectors complement each other. Private financial and human resources are added together with specialized skills that may not be available for the government. Due to the increased resources, there will be improved access to education, which can lead to raising its quality. Consequently, PPP is viewed as a major option for developing education. According to Gopalan (2013, p. 13), paradoxically, public education, which is an essential service, to remain public "needs partners outside the government to keep it up-to-date, efficient, transparent and engaging."

Second, PPP is considered to overcome the weaknesses and inefficiency of the public system. On the other hand, PPP will ensure flexibility by making the restrictions of the public sector looser. A case in point is salary structure, recruitment practices as well as management and development rules. It helps respond to market changes; it even promotes innovations and transparency.

Third, PPP is said to increase competition while bringing in efficiency associated with the private sector. Moreover, it improves accountability, improves cost-effectiveness, and thus, reduces prices or tuition fees in education. For example, the Planning Commission (2008, p. 7) argued that private finance initiative and public private partnership in "designing, developing, financing and operation is critical not only for meeting wide resource gaps but also for bringing about internal and external resource-use efficiency, improvement in quality service delivery and promotion of excellence."

What should total public spending on education be like?

Decisions on budget allocations such as education, healthcare, social security and defence are subject to the countries' priorities and provision of these services. After the economic crisis, various OECD countries introduced strict measures resulting in cutting the budget even in the education sector. Consequently, expenditure per student decreased in a lot of countries although investment in education is seen as an important growth engine. At the time of a crisis there may be an increasing demand for education as it is more difficult to compete in a more restricted labour market.

According to the OECD (2017), the average total public spending on primary to tertiary education is 11.3% as of total government expenditure, ranging from less than 8% (in the Czech Republic, Hungary, Italy and the Russian Federation) to at least 16% (in Brazil, Costa Rica, Indonesia, Mexico, New Zealand and South Africa).

While total public expenditure in the OECD countries on primary to tertiary education as of total government expenditure remained stable at 11% from 2010 to 2014, in the OECD and its partner countries the share decreased. Others, such as Ireland and Latvia, saw an increase of more than 20% over the four-year period as presented by Figure 1.

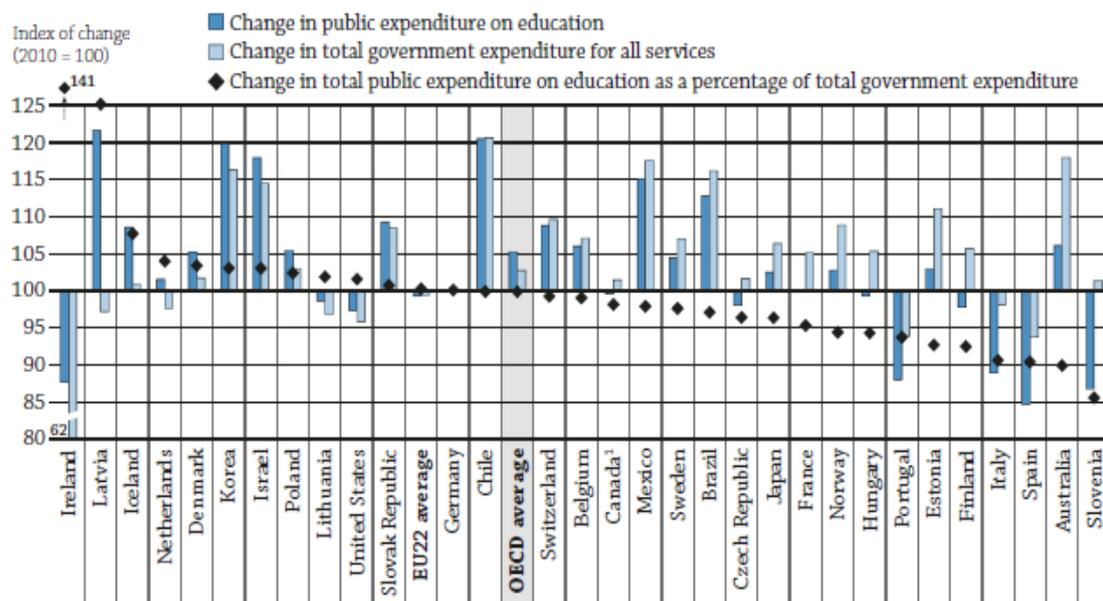


Figure 1 Change in total public expenditure on education as a share of total government expenditure between 2010 and 2014

Source: OECD, 2017

In tertiary education, approximately 85% of public funds derive from the central government. In primary, secondary and post-secondary non-tertiary education, spending is much more decentralised as 58% of the funds are managed by regional and local governments.

In the OECD countries the share of total public expenditure on primary to tertiary education as of total government expenditure on all services averaged 11.3% in 2014 ranging from less than 8% (in the Czech Republic, Hungary, Italy and the Russian Federation) to at least 16% (in Brazil, Costa Rica, Indonesia, Mexico, New Zealand and South Africa) as displayed by Figure 2.

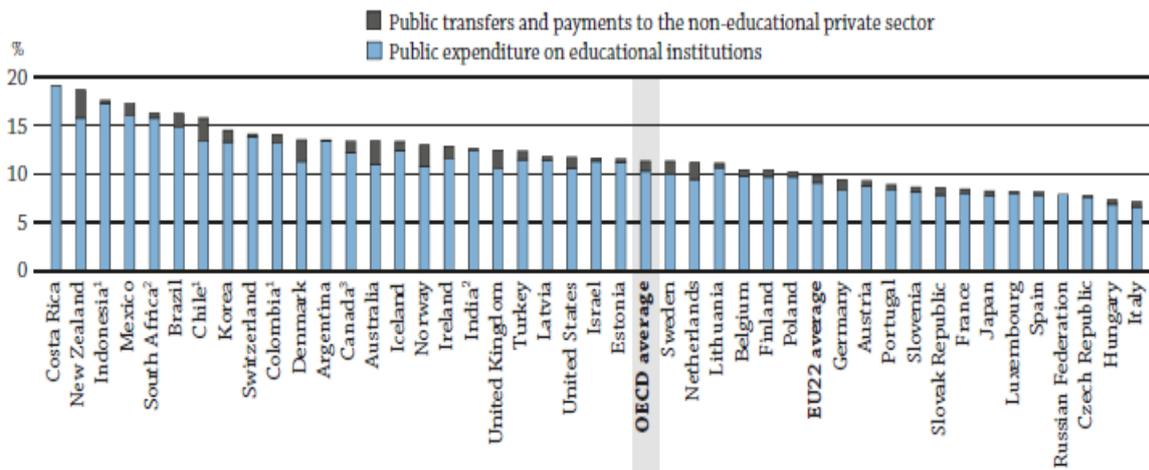


Figure 2 Composition of total public expenditure on education as a percentage of total government expenditure 2014

Source: OECD, 2017

In most OECD countries, about one-third of the total public expenditure on primary to tertiary education was devoted to primary education. This can mainly be explained by the demographic structure of the population. Total public expenditure on secondary education amounts to 4.6% as of total government expenditure (OECD, 2017).

Finally, Figure 3 gives a picture on the amount of public and private investment on educational institutions.

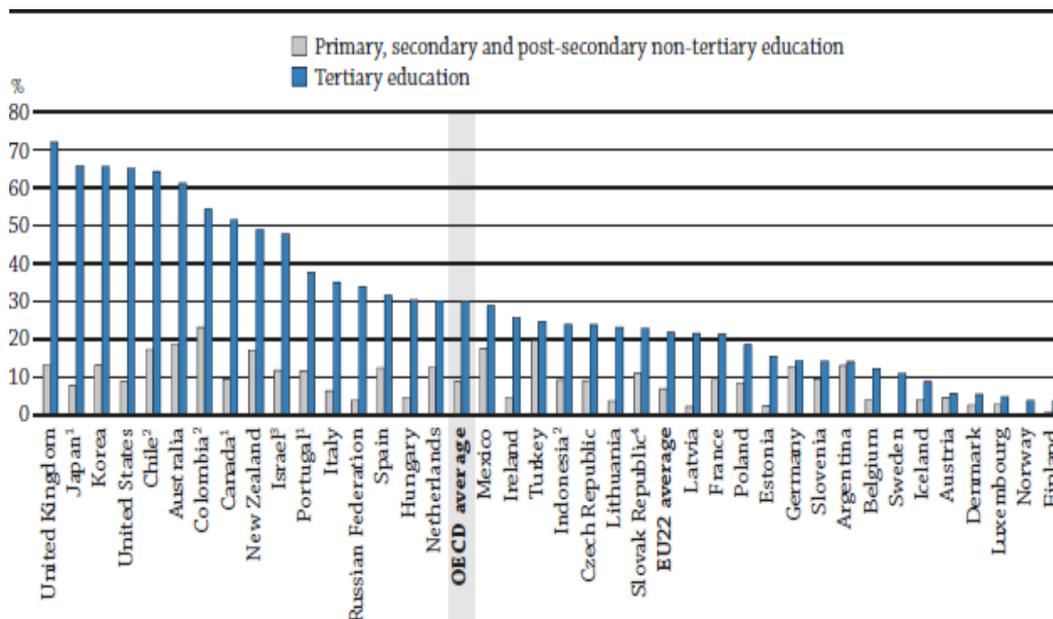


Figure 3 Share of private expenditure on educational institutions 2014

Source: OECD, 2017

The government sources of expenditure on education are divided on the three different levels of government: central, regional and local. In some of the countries, education is funded from the central source while in others it can be more decentralised. The results of the OECD Programme for International Student Assessment (PISA) suggest that when autonomy and accountability are intelligently combined, they tend to be associated with better student performance (OECD, 2016).

Discussion and Conclusion

Nowadays more and more people tend to participate in various programmes of education that are offered by different service providers. It raises the issue of who should support education: governments or individuals. Under the current economic conditions, it is very difficult for a lot of governments to provide the resources necessary for support as there is increased demand for education. Some say that it is the beneficiaries of education, i.e. the individuals who receive it, should bear some of the costs.

Still, public funding plays a great role in investing into education, private sources are also becoming prominent at some educational levels. While public sources characterise most primary and secondary education forms, on the pre-primary and tertiary levels there supposed to be a balance between public and private financing in the OECD countries. The source of private funding is mainly the households.

Generally, on a primary level more public sources are spent than on the lower secondary level. Conversely, upper secondary education is less publicly funded than lower secondary education in almost all the countries with the exception of Hungary and Poland. Tertiary education receives a higher share of private funding than lower level s of education everywhere in the examined countries.

In all countries, except Canada and the Netherlands, households provide most of the private funding at the primary, secondary and post-secondary non-tertiary levels of education. This proportion is the greatest in tertiary education in all but three countries (the Czech Republic, Finland and Sweden). However, on the primary level, public expenditure per student is much higher in public institutions than in private institutions.

To sum up observing PPP programmes we can state that they have an impact on school outcomes in two different ways. First, PPP programmes tend to affect how schools operate internally and how they allocate resources. Second, students react to the new incentives leading to a reallocation of students among schools.

PPP contracts provide schools with more flexibility in managing and providing education services. Generally, in the public sector schools are not flexible enough in hiring teachers and organizing educational matters, so PPP contracts can better harmonize supply and demand. A PPP contract can also lead to a more balanced risk-sharing between the public and the private sector, which can result in more efficient delivery of services and the improved provision of resources in education. Due to PPPs the private sector can compete with the public sector for students, which can lead to the public sector's improving the quality of the education.

However, there are also some negative features associated with the private provision of public services. PPPs can lead to privatizing education and reducing the government's control in providing a public service. The wider ranges of educational services may also lead to socioeconomic segregation if the better prepared students are channelled to high-quality schools and the poorer ones are left behind in public schools that lose the support of more educated parents.

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ANALYZING UNEMPLOYMENT BY EDUCATIONAL ATTAINMENT

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Abstract: Our paper analyses the issue of unemployment with its underlying definitions and reasons by means of documentation analysis. The subject matter of the minimal wage and its impact on the economy are also presented with its regulations in the European Union. Finally, the current situation of unemployment in the EU is dealt with. It can be concluded that the expanded educational opportunities and higher qualification levels are more likely to increase the chances of being employed. We can state that as the economies of OECD countries depend upon the supply of highly skilled workers, it is worth investing in education when considering our future chances on the labour market.

Keywords: education, employment, labour force, unemployment

Introduction

Unemployment is one of the macroeconomic issues that have a direct and severe impact on people's lives. For a lot of people, losing their job means a lower standard of living coupled by psychological distress and even depression.

Not surprisingly, unemployment has always been in the centre of heated political debates with the final objective of creating more and more jobs. Labour is one of the most important production factors as the labour force receives most of the total income earned in the economy. Our paper concentrates on the definition and reasons of unemployment together with describing the current situation in the European Union with an overview of some regulations.

Literature review

Due to the volume constraints of the publication, some of the most outstanding items of the vast literature on unemployment is analysed in our paper. The study of unemployment helps economists identify the causes and the objective is to improve the public policies that affect unemployment. Some of these policies, e.g. training programmes, help people find employment while other benefits, such as unemployment insurance, assist in easing the hardships that the unemployed face. Laws mandating a high minimum wage, for instance, are widely thought to raise unemployment among the least skilled and least experienced members of the labour force (Mankiw, 2016).

Unemployment fluctuates in time as can be seen thorough the example of the United States (Figure 1).

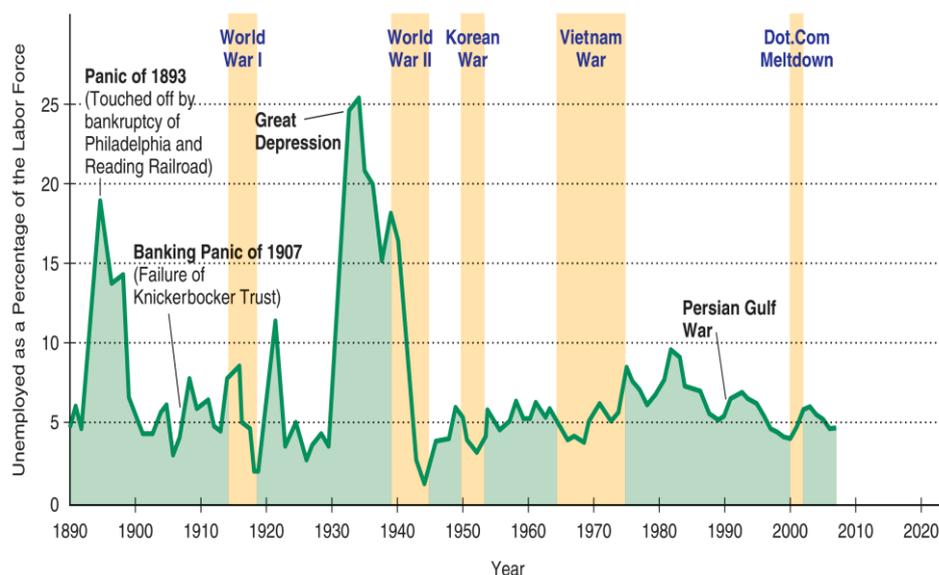


Figure 1. The unemployment rate in the United States

Source: U.S. Department of Labour, Bureau of Labour Statistics

In almost each economy at any time, a great number of unemployed may occur. They include people who are not working because they have not found a proper job that fits their qualification, skills and desirable salary. Unemployment is one of the central topics of macroeconomics. Determinants of average unemployment over certain periods together with the causes and consequences are analysed. There are different explanations given to this problem. Some say that unemployment is illusory, or the working out of unimportant frictions in the process of matching up workers and jobs. At the other extreme is the view that unemployment is the result of non-Walrasian features of the economy and that it largely represents a waste of resources (Romer, 2012).

It is easy to define employment: people are employed if they have a job. Unemployment, however, is a more subtle concept. If someone is not working does not automatically mean that the person is unemployed. According to statistics the unemployed are “jobless, looking for jobs, and available for work.” Retired people and the disabled are not looking for jobs so they are not included in the category of the unemployed. More specifically, an individual is unemployed if they do not currently have a job but have actively been seeking a job during the past four weeks. So, the unemployed are who are actively looking for work but are not currently employed (Krugman, 2011).

Material and methods

In the first section of our paper we made a brief literature review on the principal questions of unemployment in general. During our research international works have been used and the analysis was carried out by means of scientific books and articles. First, the analysis is directed at the labour force in the EU and the long-term influences on employment in relation to the main target groups such as the young, older, low-skilled workers, women and migrants. Afterwards, the short-term factors of cyclical development are listed like availability of jobs, employment growth per economic sector and their influence on job creation, temporary employment and short-term and long-term unemployment, just to mention a few. The shifts in labour market are also analysed with the purpose of providing a better overview of the dynamics of the labour market.

In the second section of the paper we carried out an analysis concerning educational attainment and employment. Firstly, we analysed Unemployment rates of the 25-35-year-old by educational attainment, following that we examined the question how educational attainment affect participation in the labour market.

Data on population and educational attainment for most countries are taken from OECD, which are compiled from National Labour Force Surveys by the OECD LSO (Labour Market, Economic and Social Outcomes of Learning) Network. Data on educational attainment for Indonesia, Saudi Arabia and South Africa are taken from the International Labour Organization (ILO) database, and data for China from the UNESCO Institute of Statistics (UIS) database. The most up to date data available at the time of writing of this paper refers to the year of 2016.

Data on subnational regions for selected indicators have been released by the OECD, with the support from the US National Centre for Education Statistics (NCES), and are currently available for 15 countries: Belgium, Brazil, Canada, Finland, Germany, Greece, Ireland, Italy, Poland, Slovenia, Spain, Sweden, the Russian Federation, Turkey and the United States. Subnational estimates were provided by countries using national data sources or by Eurostat based on data for Level 2 of the Nomenclature of Territorial Units for Statistics (NUTS 2). In terms of age groups adults refer to 25-64-year-olds; younger adults refer to 25-34 year-olds; and older adults refer to 55-64 year-olds. Educational attainment refers to the highest level of education reached by a person.

Results and discussion

Generally, the rate of unemployment is an economic indicator that describes how easily one can find a job in the current state of the economy. When unemployment is low, a great number of jobs are available so everyone who is searching can find one. People who would like to work but currently are not working are not regarded as unemployed, either. But if someone has given up looking for a job on the ground of no jobs are available is not counted as unemployed because they have not been searching for a job during the previous four weeks. Individuals who want to work but are not currently searching as there few good job prospects are known as discouraged workers who are not included in the unemployment rate, which is not an accurate measure as who want to work but are unable to find jobs can be understated.

Discouraged workers or marginally attached workers are those who would like to and have looked for work in the recent past but currently they are not looking for work so they are not included in the unemployment rate.

Finally, another category of workers who are not included in the unemployment rate, as well, are those who are frustrated in their ability and they are called the underemployed such as those who would like to find full-time jobs but are currently working part-time.

Figure 2 below presents alternatives of unemployment.

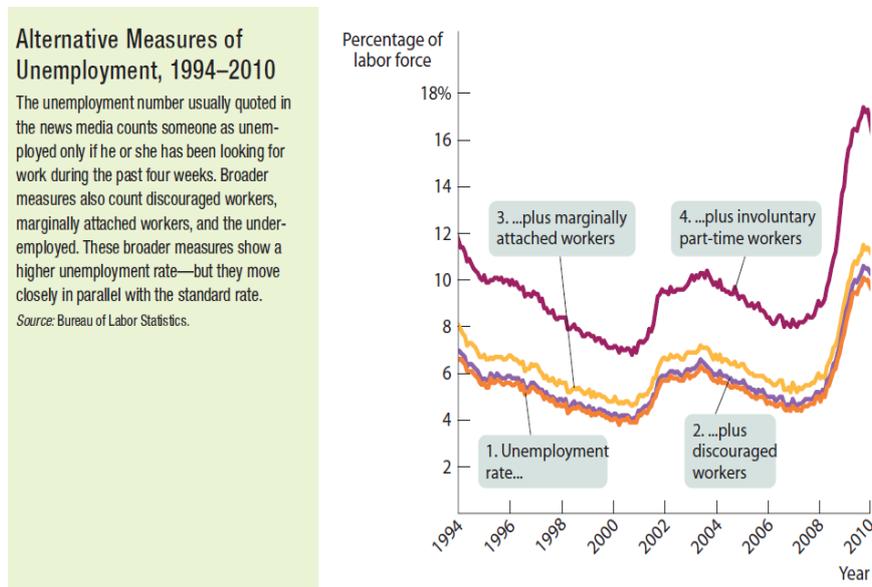


Figure 2 Alternative measures of unemployment

Source: Krugman, 2011

However, it is important to note that the unemployment rate differs among demographic groups. As a general rule, the more experienced workers and those between 25 and 54 can find a job relatively easily while the younger workers, career starters as well as workers nearing retirement age are in a more difficult situation as can be seen on Figure 3.

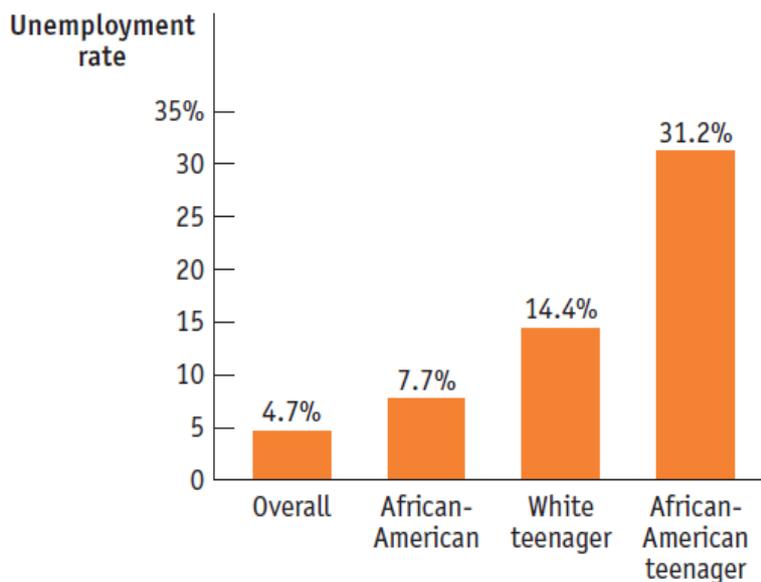


Figure 3 Unemployment rates of different groups

Source: Krugman, 2011

So although the unemployment rate is not always accurate, still, it is a good indicator of overall labour market conditions and reflects the economic changes that have a significant impact on people's lives.

Unemployment is a cause for concern for two reasons. First, it directly affects the welfare of the unemployed as the unemployment benefit is thought to ease the financial and psychological suffering. Second, it is a sign that the economy may not be using all the resources efficiently. Many workers who want to work do not find jobs; the economy is not utilizing its human resources efficiently (Blanchard, 2013).

In many OECD countries, rates of unemployment tend to reach high values among the younger adults (25-34 year-olds). It is interesting to note, however, that being threatened by unemployment is almost twice as high for those without upper secondary education (17%) compared to those with higher qualifications (9%), either upper secondary or post-secondary non-tertiary education as well as the tertiary-educated younger adults (7%).

As presented by Figure 4, younger adults without upper secondary education are in a more difficult situation in almost all the countries. The unemployment rates for them are 30% or higher like in Greece, the Slovak Republic, South Africa and Spain. In Belgium, the Czech Republic, France, Ireland and Italy about one-quarter of these younger adults are unemployed. Based on Figure 4 we can conclude that upper secondary education or a higher level of education reduces the level of exposedness to unemployment as can be seen through the example of Austria, Belgium, France, Ireland, Latvia, Lithuania, South Africa and the United States. In all these countries, unemployment rates among tertiary-educated adults are less than half the rates for those with an upper secondary or post-secondary non-tertiary education.

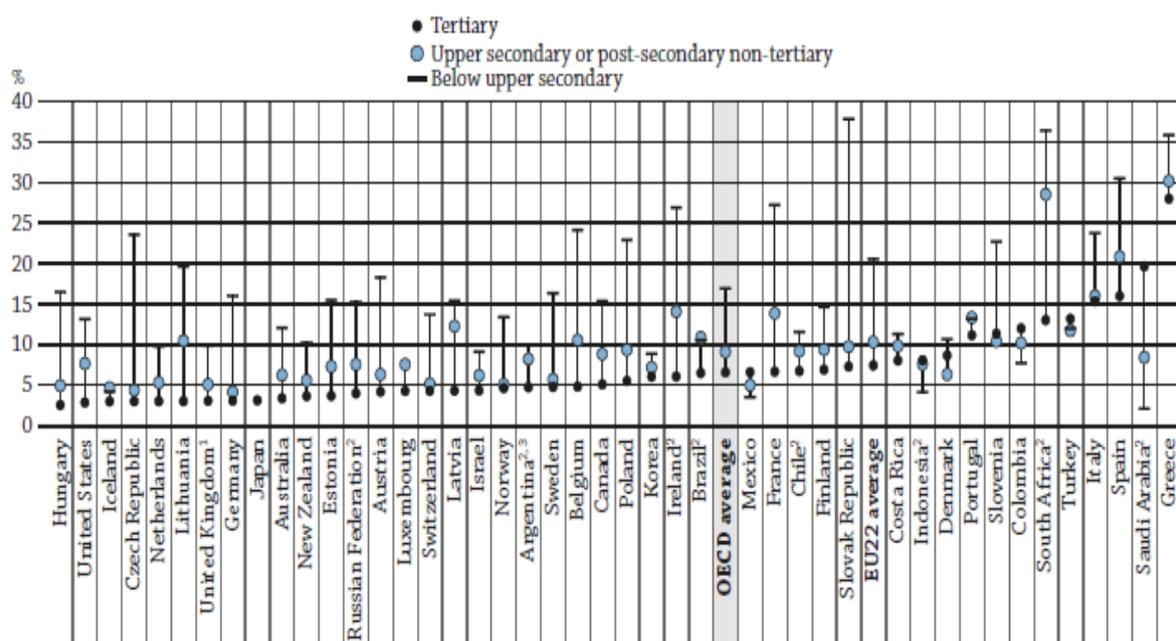


Figure 4 Unemployment rates of the 25-35 year-old by educational attainment (2016)

Source: OECD, 2017

In Iceland, Korea, Mexico, Portugal and Turkey, unemployment rates tend to be similar by educational attainment levels. In Saudi Arabia, there is a reverse relationship between unemployment rates and educational attainment: 20% of adults with tertiary education are unemployed compared to only 2% of those without upper secondary education

The percentage of inactive people, who are currently not seeking employment, is higher for those whose educational attainment is lower. On the average, 11% of adults aged between 25 and 34 with tertiary education are inactive in the OECD countries while the ratio of those with upper secondary or post-secondary non-tertiary education is 16% and those without upper secondary education is 30% (almost twice as much), respectively.

The proportion of inactive younger adults with only secondary education is approximately 40% in Ireland, Israel, Poland, Turkey and the Slovak Republic while the highest inactivity rates of those with tertiary education (20% or higher) can be seen in the Czech Republic, Italy, Saudi Arabia and Korea.

In the following part we analyse how educational attainment affect participation in the labour market. Figure 5 shows that on average across OECD countries, 84% of tertiary-educated adults are employed. However, this varies by the field of study: the employment rate is 81% for arts and humanities, social sciences, journalism and information graduates; and 88% for information and communication technology (ICT) graduates, respectively. In all OECD and partner countries, employment prospects improve for adults who have gone beyond compulsory education. On average across OECD countries, employment rates are around 20 percentage points higher for adults with upper secondary or post-secondary non-tertiary education than for those who have not completed upper secondary education. The employment rate for tertiary-educated adults is about 10 percentage points higher on average than for adults with upper secondary or post-secondary non-tertiary education. In some OECD and partner countries, younger adults (25-34 year-olds) who did not complete upper secondary education have missed out on the post-crisis economic recovery; for this group, employment rates in 2016 were still below those in 2005. For example, in Finland, France, Greece, Ireland, Italy and Spain, employment rates for this group were more than 10 percentage points lower in 2016 than they were in 2005.

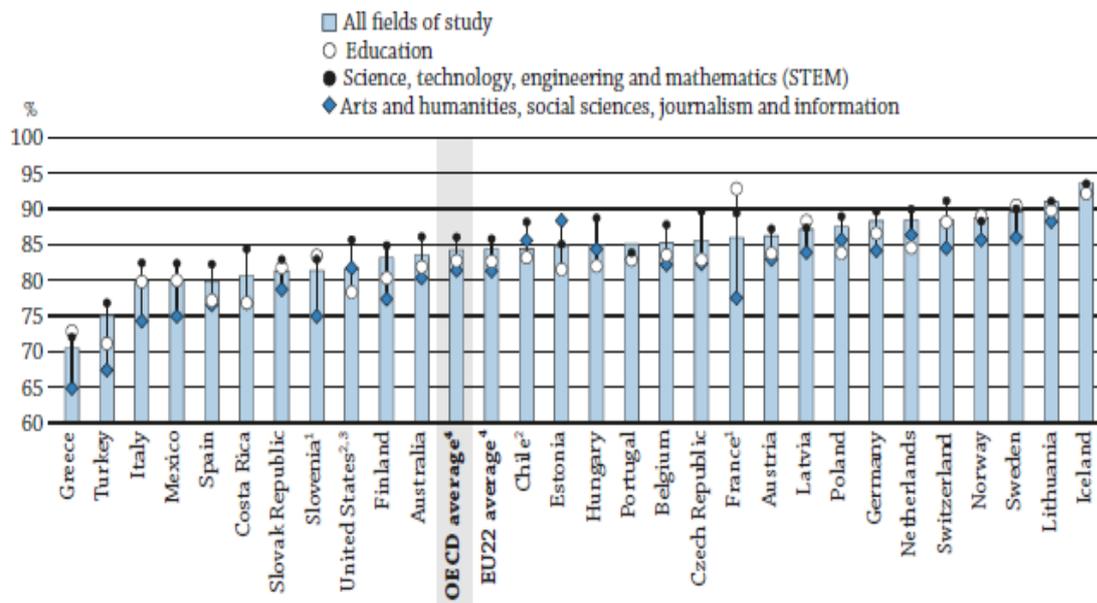


Figure 5 Employment rates of tertiary-educated 25-64 year-olds by field of study, 2016

Source: OECD 2016, 2017

Conclusion

In conclusion, we can state that various factors contribute to being inactive. In few cases it can be re-entering education within a short time. On average, one-third of inactive adults aged 25-29 in the OECD countries are still involved in education while among those not in education we can find women with childcare responsibilities and also health and other factors are more prevalent among men (OECD, 2016).

Expanded education opportunities and higher qualification levels are more likely to increase the chances of being employed. The labour market prospects for those with a lower level of education are relatively challenging as they are more exposed to being unemployed, and moreover, their earnings are lower. Disparities in labour market outcomes can exacerbate social inequalities.

Most OECD countries are dependent upon highly skilled workers on the labour market. Expanding opportunities in education may increase the number of skilled people with good qualifications and higher chances of being employed. Still, for those with low and lower qualifications, there are possibilities of employment but with worse prospects, a greater risk of unemployment and low earnings. Education is challenged by changing demands for skills in the labour market. Nowadays technological advances have been transforming the global labour market, and the chances of employment are greater for those with higher skills, particularly in ICT and problem solving.

Finally, we can state that as the economies of OECD countries depend upon a supply of highly skilled workers, it is worth investing in education when considering our future chances on the labour market.

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THE CONTRIBUTION OF PROCUREMENT IN INVENTORY RISKS: A CASE STUDY OF KIMADIA COMPANY (IRAQ)

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Abstract: Procurement is one of the main activities of supply chain management which can play a vital role in the efficiency of the supply chain, especially the pharmaceutical supply chain. Therefore, this study tries to clarify the contribution of procurement in the supply chain risks. The study has been conducted in the State Company for Drug Marketing and Medical Appliances (Kimadia) by conducting interviews with the directors and using the secondary data prepared by official institutions such as Office of Financial Supervision (OFS). The main aim of choosing Kimadia as a study field is due to the fact that it is the sole supplier for governmental health institutions in Iraq which has problems in terms of medical supplies such as surplus, shortage and expiration. While medicines and pharmaceutical supplies have a relationship with human life, any problem in supply chain activities also affects the health service.

Keywords: expiration, pharmaceutical sector, shortage, supply chain risks, surplus

Introduction

Inventory risks are among the most common problems of the supply chain all over the world. In well-developed and well-planned circumstances, inventories are predictable, the procurement process is planned and the supply process is smooth. The well working supply chain is a must in the pharmaceutical industry. Our paper introduces the problems of the Iraqi pharmaceutical supply chain. The most important problems were revealed after conducting different in-depth interviews with the different players of the supply chain. This paper focuses the problems of inventories and the procurement processes. The general goal of the paper is to reveal the present problems by using primary data and secondary data, and to make recommendations for future activities based on the experiences and good practices described in literature sources.

Literature review and research background

The top priority for any health system is to provide medicines for patients. The pharmaceutical supply chain like any supply chains, can exposure too many risks and it is more sensitive than the other supply chain because it is related to human life. These risks affect supply medicines or waste the resources but also can threaten the life of people by impeding access to medicines, therefore, the factors which affect supply chain should be selected and find appropriate solutions to treat the risks (Jaberidoost et al., 2013).

The supply chain risk is defined by many authors, whose definitions are different according to their authors' point of view. Jüttner et al. (2003) defined the supply chain risk by focusing on information, material and products flow risks from original suppliers to the delivery of the final product for the end user. The supply chain risk defined as "the potential variation of outcomes that influence the decrease of value added at any activity cell in a chain" (Bogataj and Bogataj, 2007, p. 291). According to Ho et al., (2015, p. 5035) supply chain risk is "the likelihood and impact of unexpected macro and/or micro level events or conditions that adversely influence any part of a supply chain leading to operational, tactical, or strategic level failures or irregularities". The concept of supply chain risk is multi-faceted, which differs according to industry or service type.

To provide all kinds of medicines and pharmaceutical supplies by pharmaceutical companies, it should be depended on outsourcing. Although the companies recognize the importance of global supply chain, they also find that the global supply chains have extra complexities which are either slight or non-existent in a local supply chain. These complexities include cultural differences and language, currency fluctuations, armed conflicts, increased transportation costs and lead times. In addition, the factors which can impact the supply chain's success – including local capabilities, transportation, financial and communication infrastructures, governmental, environmental and regulatory issues and political issues – must be analyzed and identified by managers to avoid risks.

The risks can relate to supply (for example supplier failure, sustainability issues, quality issues, transportation issues, pirates, terrorism), costs (e.g. increasing commodity costs), and demand (e.g. decreasing demand, demand volatility, and transportation issues). Waste could be reduced by using quality assurance systems and implementing lean management methods (Illés et al, 2017), but in Iraq, these practices are rarely used due to the unfavourable economic and political circumstances (Dunay and Shaban, 2017).

Of course other risks are also can be detected such as intellectual rights issues, contract compliance issues, forecasting errors, competitive pressure, and inventory management (Stevenson, 2012). Because of the high cost of keeping inventory, the companies try to reduce inventory levels. It can be achieved by focusing on raising supply chain efficiency, quality management and reducing uncertainty at various points along the supply chain (Szegedi and Illés, 2006).

Gupta and Gupta (2016) classified the pharmaceutical risk into two main factors: (1) external supply chain risks: demand risks, stock risks, environmental risks, corporate risks and physical plant risks, and (2) internal supply chain risks: manufacturing risks, corporate risks, planning and control risks, mitigation and contingency risks and cultural risks.

According to (Hasija et al., 2017) there are four kinds of risk affecting the pharmaceutical supply chain: regulatory risk, counterfeit risk, inventory risk and financial risk.

This paper is focusing on the contribution of procurement on inventory risks, so, we have to clarify the concept of inventory risks and procurement.

According to (Hasija et al., 2017) the inventory risk can occur due to lack of inventory planning and inaccurate demand forecasting. Inventory control might be a challenge for companies and the way by which inventory managed can affect the performance of a company. Increasing the level of inventory in warehouses means extra costs and having too little leads to reduce service level. Despite inventory is considered to have a negative effect on companies' performance because of large proportion of the total expenses is generated, but having inventory is still important for many kinds of products.

Procurement is the function that ensures identification, sourcing, access, and management of the external resources that an organization needs or may need to fulfil its strategic objectives (Kidd, 2005). According to The Global Fund to Fight AIDS, Tuberculosis and Malaria (2009) the term procurement refers to all activities required to ensure the continuous and reliable availability of sufficient quantities of quality-assured, effective products to end-users, procured at the lowest possible prices in accordance with national and international laws.

The procurement activity has several benefits according to CIPSA steering group, for example the security of supply, lower costs, reduced risks, improved quality, greater added value increased efficiency and innovation (Kidd, 2005).

The activities and events before and after signing of a contract and the general management activities associated with a range of contracts are included in procurement activity which are:

- pre-contract activities such as planning, needs identification and analysis, and sourcing,
- post-contract activities such as contract management, supply chain management and disposal, and
- general activities such as corporate governance, supplier relationship management, risk management and regulatory compliance (Kidd, 2005).

Methodology

In this study, primary and secondary data were used: secondary data include official reports while primary data of the study were collected by using interviews with 4 directors who work in Kimadia in order to understand the procedures of procurements and which kind of inventory risks they face. The interviews are one of the most important methods to collect general data about studies (Sekaran, 2003).

Case study – Iraq

Iraqi pharmaceutical supply chain

The state company for drug marketing and medical supplies (Kimadia), established in 1964, is one of the main strategic companies in Iraq which is owned by the government. The main headquarter is located in Baghdad. It is governed by the general companies law No.22 of 1997 as amended and the rules of procedure No.1 of 1999.

Kimadia company is managed by the board of directors, which consist of the director general chairman and eight members, and it contains 17 department, 4 divisions, 3 distribution centers and 5 warehouses in governorates.

The company is connected directly to the Iraqi Health Ministry. It contributes to support the national economy by providing all Iraqi health institutions (both state and private sectors) with products that are used for medical or other purposes, namely medicines and pharmaceutical materials, laboratory materials, spare parts for medical and service equipment, and chemicals that are involved in preparing vaccines. The products and materials are imported by the company from abroad or are manufactured in Iraq, and the company is responsible for distributing these products to Iraqi health institutions.

Based on the interviews it is concluded, that the transactions can happen every year by announcing the deal to suppliers, after that the suppliers submit their bids to the company. Then the bids are opened by a special committee which will make an assessment carefully to choose the appropriate tender for the company. After selecting the appropriate tender for the company, the committee will examine the samples of the transaction which will be chosen if it meets the specifications. All these procedures need very long time which might need more than one year.

Thus, the company requires the health institutions, which are committed with the company according to government legislation, to send their needs for specific year at least two years earlier than they start the procedure. For instance, the health institutions have to send their needs for 2019 beginning of 2017 to finish all procurement procedures, such as the announcement of tenders, contracting of suppliers and checking of goods etc., which need a long time. In the researchers' viewpoint, the procurement process has faced several challenges.

The company deals with many suppliers to provide medical supplies and drugs, which leads to long process in each transaction because of new procurement procedures each time such as checking the goods, choosing suppliers, etc.

The company adopts the government policy in selecting suppliers, and it depends on the political and financial situation which can affect the company's strategies. As the company deals with different suppliers each time, it can affect the material flow especially in emergency situations. Dealing with too many suppliers, may lead to purchasing a huge amount of materials that will result high inventory levels, which may increase the inventory fluctuation in supply chain like surplus and shortage.

Problems of the pharmaceutical supply chain in Iraq

In this section, the real data, which are given in the annual reports of Office of Financial Supervision, are summarized. This Office has the power to access most of the information in the government's ministries and institutions.

According to the Annual Report for 2008, there was a shortage in some kinds of medicines whereas there is a surplus in other kinds of medicine due to sending it by the company to the health institutions without needing for it (OFS, 2008)

The 2011 Annual Report prepared by Office of Financial Supervision revealed the following problems:

- there is a shortage of medicines and pharmaceutical supplies because hospitals are not equipped with insufficient quantities when compared to the annual needs in many provinces such as Baghdad, Al-Rusafa, Kirkuk, Basrah, Muthanna, Salaheddine, Babylon, and Ninevah; this problem requires the health departments to coordinate with the General Company for the Marketing of Medicines and Medical Supplies on this matter;
- there are surplus medicines for hospitals in large quantities e.g. at Baghdad Health Department and Basra Health Department. The necessary procedures have not been taken in relation to transfer them to other health institutions to use them;
- there are medicines and medical supplies that have expired or are close to expiry date in most hospitals. The necessary procedures have not been taken to disposal them until the date of preparation of the report, including the health department in Baghdad-Al-Rusafa, Basra, Diyala, Dhi Qar, Muthanna, Wasit;

- a huge amount of medicines and pharmaceutical supplies was expired in the warehouses of the company, its value in 31/12/2010 up to 34,683,000,000 dinars which equivalent about 28,000,000 USD;
- there are very large quantities of medicines and pharmaceutical supplies in the Kimadia warehouses which is failed in the test, without getting any compensation from equipped companies or withdrawing it, which resulted occupied spaces in the warehouses;
- some of medicines were used at the Baghdad Teaching Hospital, which was supplied by Kimadia, despite the Ministry of Health has prevented its use because it is causing health problems;
- 1378 syringes were returned which were used for treating cancer after using 1046 syringes to patients because they did not meet the required specifications;
- the quantities of radioactive iodine capsules were discarded during the year 2010 for non-use during the validity period, which cost 31-1043 USD per capsule (OFS, 2011).

The First Quarter Report for 2015 Prepared by Office of Financial Supervision showed the delay of some companies, which contracted with Kimadia, in supplying or achieving the contract of medicines and pharmaceutical supplies are shown in the *Table 1*.

Table 1. The delay time of different contracts

Contract number and date	Implementing company	Delay time/ day
(19/2014/34) On 29/5/2014	(ARD (unifert) SAL)	50
(95/2012/191 / R1) On 17/11/2013	Aicon	159
(92/2013/37/1) On 16/6/2014	Aesculap AG	114
(40/2013/739)	F.HOFFMAN- La Roche Ltd	53
(40/2014/18)	Sanofi	108
(40/2014/13)	ARD	162

Source: own calculations based on OFS (2015a)

The Second Quarter Report for 2015 of the Office of Financial Supervision indicated a shortage in some essential and non-essential medicines and pharmaceutical supplies in the health institutions of Diyala health directorate and Al-Dewania health directorate. As well as, the company did not put some essential medicines on the essential list, which caused a shortage in these kinds of medicines which is very important for patients. There was also an expiry date in some types of medicines and pharmaceutical supplies (OFS, 2015b).

In the Fourth Quarter Report for 2015 of the Office of Financial Supervision revealed that the shortage of medicines for chronic diseases was because of the lack of supplied quantities, whereas, there was a huge quantity of expired medicines stocked in the stores of public clinics department for previous years. The health service was affected badly due to lack in some kinds of medicines and pharmaceutical supplies which should be provided by Kimadia.

With regards to Medical City, there was surplus medicines and pharmaceutical supplies in the stores which should be transferred to the other health institutions if they in need (OFS, 2015c).

Conclusion and recommendations

The main results of this study were concluded after conducting interviews with different directors in Kimadia as a primary research, and based on the discussion of secondary data.

The main results indicated that the procedures of procurement start two years before the specific year, starting with the needs estimating of health institutions until arriving the medicines and pharmaceutical supplies, the long-time of procurement procedures affect the accuracy of needs estimating and causes lots of risks in inventory such as surpluses, shortages, and expiration in medicines and pharmaceutical supplies. These results were confirmed clearly by the secondary data and these problems generated a huge amount of costs.

The main recommendations to solve these problems is to shorten the lead time of needs estimating and strengthen the relationship with few good suppliers to buy small batches frequently.

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EVALUATION OF PROFESSIONAL KNOWLEDGE OF COOKS AND STORAGE MANAGERS IN SECONDARY SCHOOLS

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Abstract: The right implementation of good hygiene practices in kitchens mainly depends on the knowledge and practices of kitchen workers. Scientific literature shows that in most cases the failures in food safety are related to the food handler's knowledge. In this research, the professional knowledge of food handlers was evaluated by a self-administered test in 18 schools. Thirty-four cooks and nineteen storage managers participated in the test sessions. The questionnaire consisted of 32 questions divided into eight main factors related to food safety: dishwashing, cleaning, personal hygiene, receiving of goods, storage, preparation, serving, and food waste. Demographic data was also collected. The average test results were 72.6%. Statistical differences were observed between cooks and storage managers in the case of preparation, where the results of cooks were higher.

Keywords: cook, food handlers, food safety, knowledge, school meal, storage manager

Introduction

Foodborne diseases are one of the most serious problems in the food sector, all over the world. According to WHO estimations, the number of foodborne diseases is increasing, not only in underdeveloped, but also in highly developed countries. Besides these general issues, a serious question of this topic can be raised related to the young age groups: how can we save children, as a very sensitive age group, from such diseases.

A basic and general part of our research goal was to explore the background of foodborne diseases, their reasons, and those activities which represent more hazardous steps and processes in food and catering industry. One of the most critical groups of the food delivery process is the group of food handlers, whose mistakes might bring serious further impacts in food safety aspects. Therefore, the main objective of our research was to explore and analyse the knowledge level of skilled food handlers working in the Hungarian school catering system, so the main focus was put on cooks and storage managers.

Research background and methodology

Foodborne diseases

World Health Organization data underlined the importance of food-borne diseases, as the number of such problems shows an increasing tendency worldwide, as 10-30% of the population is affected by foodborne diseases every year, even in the well-developed countries. Although food safety is considered as a high priority in the EU, the number of diseases is increasing continuously (Newell et al., 2010; Faccio et al., 2013; Ovca, Jevšnik and Raspor, 2014). Nevertheless, the growing trends might be resulted by the obligatory notification of such diseases, i.e. the indication of the occurrence of these diseases is compulsory, but the increasing numbers should call the attention of the society.

According to Hungarian data, the emergence of foodborne diseases in the public catering institutions is closely connected to different food technology mistakes. In 14% of all cases, the insufficient heat treatments, in 8% the non-sufficient cooling, in 7% the not properly conducted preparations and in 9% the infected raw materials caused the foodborne diseases. In 30,8% of all cases, the microbes, which are responsible for the infections, were added to the ready food products after their final preparation stage, when additional microbicide actions (e.g. heating processes) are not to be conducted (National Food Chain Safety Office, 2013).

Protection of consumers

Foodborne infections and foodborne intoxications may cause several serious chronic diseases, intestinal inflammations, tumorous diseases, the weakening of the immune system, and also may generate problems in the nervous system and other important organs. In addition, foodborne infections and intoxications may increase the problems of food-transmitted viral diseases as well (Marzano and Balzaretto, 2013; Zhao et al., 2014). By keeping the hygienic rules and recommendations, these threats and problems might be stopped or avoided. This problem became global, as products are produced all over the world, and from the production venue they can be spread very quickly into different countries by the transportation devices and public transport as well, and the transmitted pathogens and contaminations can reach anyone's body.

The main tool of protection against foodborne human diseases could be to strengthen food safety requirements and the structure of food safety activities (Clayton et al., 2002; Wallace et al., 2014). Therefore, different measures should be taken in order to save the safety of food provision, to protect against diseases and to improve the consciousness of consumers (Violaris, Bridges and Bridges, 2008).

This process has an increased importance in school catering, as the children's immune status, their resistance towards infections is weaker than of adults, thus, the risk of diseases or health problems is more significant. Diseases will affect the physical and intellectual performance of children and might be an important risk for the children's future health conditions.

Responsibility of food entrepreneurs

In the course of the whole food supply chain, the main responsibility for food safety is taken by the food producers and food providers (i.e. food entrepreneur). This responsibility might be solved successfully by the full knowledge and the total adherence of compulsory requirements, and by the implementation and maintenance of food safety and quality assurance systems (Doménech, Escriche and Martorell, 2008; Violaris, Bridges and Bridges, 2008; Kasza et al., 2011). The government, the authorities and food entrepreneurs shall mutually help each other in order to keep the level of the food supply chain, and only such players should be present at the food market, who know, keep and apply the rules of food safety and food quality (Jevšnik, Hlebec and Raspor, 2008). In this context, the role of the food handlers is very important, particularly when food handlers have professional qualification.

Food safety education

In Hungary, the knowledge level of the food handling staff can be improved through a vocational training system, supported by the food safety institutions. In the course of the different educational programs for the workers of the food supply chain, the questions of food safety are discussed (Tóth and Bittsánszky, 2014). This knowledge transfer is also available as a mandatory part of the quality assurance and food safety systems (HACCP) where the most important knowledge and information shall be taught regularly for all employees, in case of particular working places and working tasks. The food-entrepreneurs are fully responsible for the organization and management of this process (Seaman, 2010; Bánáti and Lakner, 2012; McIntyre et al., 2013).

Knowledge and technology

Many researchers highlighted the importance of the quality in catering of schoolchildren, and in parallel, they highlighted the important problem of non-conformity of the food safety systems in school catering services (Liz Martins and Rocha, 2014; Tóth and Bittsánszky, 2014).

Although the operators of school catering services provide the needed resources and the legal requirements are clearly defined by the authorities, many school kitchens do not work properly and uniformly, in accordance with the requirements. In many cases, not only the circumstances and the environment, but also the performance of the processes is not in accordance with the requirements of the good hygienic practice. For checking appropriateness of the different practices, Lehota and Illés (2005) used benchmarking methods, which helps to identify the gap between current and optimal performance level.

The improvement of the food safety level did not followed the speed of the technical-technological development, so the expectations were not fulfilled (Seaman and Eves, 2010). For the appropriate performance, not only the technological, but also the soft factors (i.e. human resource) should be

improved (Martinez et al., 2005). This tendency may be seen in Hungary, too, but the research results of Tóth and Bittsánszky (2014), confirmed that the not only the development and quality level of the used technology influence the food safety level of the given working places, but the knowledge level and experience of food handlers will also have significant impacts on this situation.

Materials and methods

Our research was conducted in the autumn of 2017, at 18 school kitchens with the participation of 34 cooks and 19 storage managers. All of the respondents have professional qualifications in food technology. The examined 18 kitchens altogether provide food for nearly 13 000 schoolchildren and 1500 school workers (teachers, administrative staff) per one day. All of the examined kitchens have got the HACCP certification and documentation.

The survey questions were compiled by food safety experts and researchers. The questions were selected according to previous results given by international scientific literature sources and the existing Hungarian rules and regulations, which are included in the Good Hygienic Protocol documentations.

The questionnaire contained 32 questions in 8 topics such as: Dishwashing, Cleaning, Personal hygiene, Receiving, Preparation, Storage, Serving and Food waste. Each topics included four questions, two of them were related to traceability aspects and the other two was related to cross-contamination problems. All correct answers was measured by one point, the incorrect or not fully correct answers were evaluated by 0 (zero) points.

The results were assessed in the percent of the maximum total scores (32=100%). The questionnaires were validated by food safety and food technology experts and were tested at a trial survey at two kitchens by the participation of 10 food handler employees.

The data procession and statistical evaluations were conducted by the IBM SPSS Statistics 22.0 for Windows statistical programme, for the comparison of the results of cooks and storage managers was done by conducting t-test.

Results and discussion

The average of the results was 72,6%, its deviation was 10,7%. The worst result among the answers represented 46,9% while the best result was 93,8%. The result of 14 kitchen workers was higher than 80%, 30 respondents reached 60-80%, and 9 reached less than 60% results. The results are summarized by *Table 1*, according to the 8 different topics.

According to the research results, there is no significant difference between the knowledge of cooks and storage managers in most topics, only in the field of "Preparation", where the cooks reached better results. The deviation of the results is relatively high in many fields, which refers to the differences between the knowledge levels of kitchen staff, which bears high risk in food safety aspects.

Based on the results of the test, the fields of "Receiving", "Storage" and "Dishwashing" were the most critical points, which results are in accordance with other literature sources (Abdul-Mutalib et al., 2012; Garayoa et al., 2014).

Table 1. Results of the knowledge test of cooks and storage managers according to food safety topics

Topics	Cooks (n=32)	Storage managers (n=19)
Dishwashing	60.3% ± 33.1%	67.1% ± 30.8%
Cleaning	75.7% ± 30%	81.6 %± 24.9%
Personal hygiene	70.6% ± 26.8%	72.4 %± 18.9%
Receiving	55.9% ± 38.9%	48.7% ± 50.7%
Preparation	95.6 %± 2.9%	90.8 %± 6.6%*
Storage	58.8 %± 20.5%	64.5% ± 11.7%
Serving	85.3% ± 18.1%	92.1% ± 9.1%
Food waste	72.8 %± 31.3%	73.7% ± 33.6%
Total	71.9% ± 11.7%	73.8% ± 9%

Note: The statistically significant differences are indicated by asterisk (*)

Source: own research

The results related to traceability and cross contaminations are displayed in *Table 2*. Based on these results, it can be stated, that there is no significant difference between the two areas, between the knowledge of cooks and storage managers.

Table 2. Results of the knowledge test of cooks and storage managers according to food safety topics

	Cooks (n=32)	Storage managers (n=19)
Traceability	71.1 ± 30.8	74.3 ± 26.6
Cross contamination	72.6 ± 24.4	73.4 ± 29.2

Source: own research

In the future developments of food safety programs the knowledge sharing, special trainings and educational programs should be put into the focus, and the responsibility and responsible attitude of food-entrepreneurs and food producing or providing companies shall be strengthened (Seaman and Eves, 2010). The improvement of the knowledge and information about food hygiene and food safety and the practical application of these important issues is the key to the development of food safety circumstances (Haapala and Probart, 2004). The basic knowledge about food hygiene, food safety and nutrition should be built into public education and everyday work and habits. By this process the basic knowledge of food handlers may be improved, which will bring the reduction of the foodborne risks. The information about food safety in educational institutions and the support of food safety researches should be among the main objectives of the food chain safety strategy (Bánáti and Lakner, 2012).

Conclusion

The basic objective of our paper was to highlight the importance of food safety issues in the catering sector, especially in school catering, and to underline the importance of the knowledge of certain players of the sector, related to food safety questions. There is a contradictory situation in the catering sector. In one hand, there are very important and excessive developments in food technology, by which higher quality and more safe food can be provided for the consumers, and on the other hand, there are missing information and lack of knowledge on the side of food handlers.

There are different available assets in any companies, but human resource is that one, which can be improved in the most profitable way, without any intensive investments, using motivation, building appropriate attitudes and sharing knowledge. When the employees (in our case, food handlers) are motivated and have the appropriate qualifications and they keep their knowledge alive and updated, the situation may be improved, even without high-tech technologies.

Our paper examined and analysed the knowledge level of the food handlers in certain examined schools, and these findings underline the importance of the education and knowledge transfer in food catering enterprises.

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AGROFORESTRY SYSTEMS – A PATH TOWARDS SUSTAINABILITY

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Abstract: Sustainability is one of the most challenging topics of our time, in terms of environmental, economic or social aspects. Sustainable development affects different scientific fields and generates new inventions, innovative methods, new management methods or simply brings back traditional tools and solutions with modern approaches. Agroforestry is one of these historical methods which bears a new, innovative approach. Protecting forests while producing agricultural products may be a good opportunity for rural areas and rural communities may help to protect the biodiversity and natural conditions and create jobs. Conservation of natural resources is related to food security and maintenance of human life. The aim of this theoretical paper is to demonstrate the potential of the agroforestry system in terms of the regeneration of the natural resources and maintenance of food security, and its relations with the whole agricultural supply chain based on desk research, by which the theoretical foundations and the framework of the future empirical research are outlined.

Keywords: agroforestry, environment, rural society, supply chain, sustainable development

Introduction

Sustainable development is one of the most important issues of our time, all over the world, in developed, developing and underdeveloped countries as well. Sustainability is not only about environment, it merges three important areas – environmental, social and economic fields – into an integrated single perspective (Bebbington, 2001). Sustainable development recognizes that economy and society are depending on the biosphere and its different environmental processes (Dunphy et al., 2000). Forestry was among the first topics in connection with sustainability, as the huge losses of forests – either in Europe or in South America or Asia – attracted the high interest of the wide public and raised attention for the importance of saving the ecosystem, preserving the nature. Conservation of natural resources is also related to food security and maintenance human life, and the most challenging question is to find the balance between human needs, needs of the society and the environment, to solve these problems efficiently, in an economic way.

The aim of this research is to demonstrate one special solution of these problems: the potential of agroforestry system, which is the intentional integration of trees and shrubs into crop and animal farming systems to create environmental, economic, and social benefits. This system allows the full regeneration of the natural resources and maintenance of food security may be solved, too.

Present paper provides the theoretical background of agroforestry, mostly based on desk research of literature source and document review, which is planned to be followed by the future empirical research conducted in Europe and Brazil.

Literature review and study background: sustainability definitions

The idea of sustainability comes from the concept of sustainable development definition of the first Earth Summit in Rio in 1992. According to the original definition described in the so-called Brundtland Report “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987, Paragraph 1).

There are two basic definitions of sustainability in most contexts. In general it means the prosperity goals related to an integrated approach between economy, ecology and community, improving each domain without diminishing the other (Cafuta, 2015). More specifically, improvements in “environmental performance” of social and economic systems (resources consumed; waste produced) are what is typically referred to as “environmental sustainability” (Bizos et al., 2016).

Sustainability has three pillars which cannot be separated; it is represented as the synergy between society, economics, and environment (*Fig. 1*).

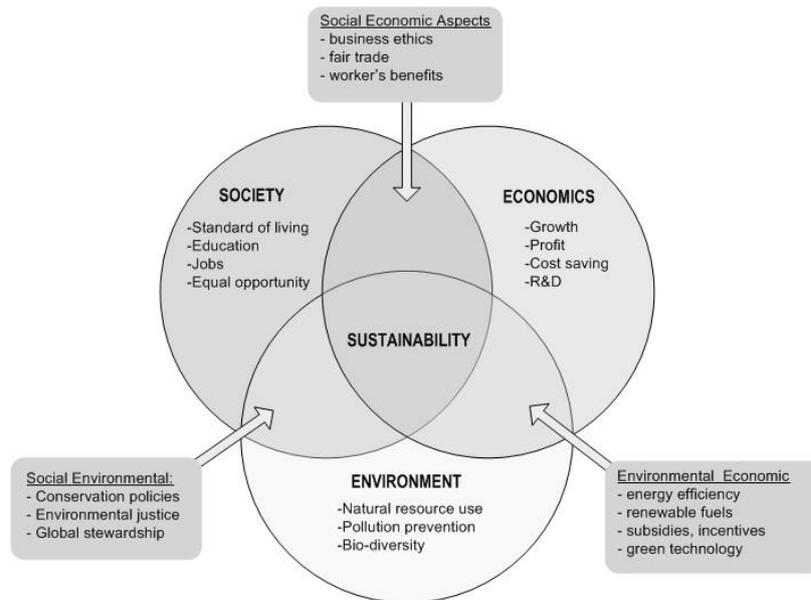


Figure 1: Three pillars and relationships of sustainability

Source: <https://www.e-education.psu.edu/eme807/node/575>

Environmental aspects include use of natural resources, preventing pollution and protecting biodiversity. Social aspects include standards of living, availability of education and jobs, and equal opportunities for citizens, while economic factors are the drivers of growth, profit and research and development. Environmental sustainability means, when ecological integrity is maintained, and environmental systems are kept in balance and natural resources are consumed by humans at that rate where they are able to replenish themselves. Economic sustainability means, when human communities are able to maintain their independence and have access to all resources (financial, physical, natural, and human) that they require. Economic activities are available to everyone and help to secure sources of livelihood (Bizos et al., 2016). Social sustainability means that human rights and necessities are available for everyone, and people have access to enough resources in order to keep their families and communities healthy and secure, personal, labour and cultural rights are ensured and individuals are protected from discrimination (Lozano, 2008).

The interactions between the pillars of sustainability are well summarized by *Fig.1*. The three circles represent the three pillars; the overlapping segments are related to the socio-economic aspects (behaviour, attitudes, norms and ethical issues), environmental-economic aspects (energy saving methods, recycling, reuse, renewable sources and the related supporting incentives). The social-environmental segment includes the legal patterns and laws related to environment consciousness.

Sustainability is the complexity of the entire system, which means that sustainability needs the support and the active participation of all parties, all subsystems. Lozano (2008) added a special viewpoint to this system approach, assessing and considering external factors and interactions as well, the relations among economic/money trade, individual/personal beliefs, group norms/culture society, technical/administrative skills, legal/political systems, and physical/biological sources. These interactions and factors may be developed by the education and changes of attitudes of the different parties: representatives of the political, social and legal segments of the macroenvironment.

Besides the general viewpoints, the responsibility of different stakeholders should also be assessed. Fisk (2010), in his book *People, Planet, Profit: How to Embrace Sustainability for Innovation and Business Growth*, highlighted the activities and processes of the different stakeholders of the economy. The most important agendas of sustainability are connected to create sustainable businesses (efficient processes, competitive advantage, profitable growth, investor returns, enterprise partners, good employer, creativity and innovation, business model). Meanwhile, the environmental limits (renewable energy, replenishing resources, logistics and transport, waste management, emissions and pollution, sustaining diversity, building design) shall be seriously considered, and the result may be a fair, well-based society (health and wellbeing, locality and communities, education and development, relieving poverty, human rights, safety and security, ethics and governance, privacy and equality).

These agendas are working like gearwheels, stimulating and strengthening each other, so economic growth is only sustainable, if business activities are integrated with social and environmental priorities (Fisk, 2010).

Results and discussion

According to the general definition of Nair (1989) agroforestry is a dynamic, ecologically based management system of natural resources, which integrates trees in farms and in the landscape, and diversifies and sustains production for increased social, economic and environmental benefits. Schroth et al. (2013) defined agroforestry as a summary term for practices that involve the integration of trees and other large woody perennials into farming systems through the conservation of existing trees, planting of trees and the tolerance of spontaneous tree regrowth. According to USDA (s. d.), agroforestry is a special land management approach of agriculture and forestry, which combination may enhance productivity, profitability, and environmental issues, i.e. sustainability. Leakey (1996) defined agroforestry as a collective name for land-use systems and practices in which woody perennials are integrated with crops and/or animals on the same land.

For centuries, agroforestry (i.e. cultivating trees and agricultural crops) has been practiced throughout the world (Nair, 1993). In Europe, until the Middle Ages, it was a widely used method to clear degraded forest and cultivate food crops on the cleared area (King, 1987). These systems were widely used in tropical America, where many societies prepared forest conditions to obtain the positive effects of the forest ecosystem like layered production, sheltering etc. (Wilken, 1977). In Europe, the total area under agroforestry represents 8,8% of the agricultural area, but climate is a limiting factor. Agroforestry is more common in Southern countries like Greece, Portugal, Cyprus, Italy, Spain and Romania, where climatic conditions allow the production of crops in agroforestry system (den Herder et al., 2016).

Agroforestry is multilayer canopy with mix vegetation species. Besides the water and nutrient competition, there is synergy between the species and this ends in the as positive balance (Tschardt et al., 2011). *Table 1* summarizes the different categories of agroforestry systems.

Table 1: Major approaches to classification of agroforestry systems and practices

Structure and function of components		Social, environmental and management issues		
Structure		Function and output	Environ-mental	Socio-economic
Nature of components	Place of components			
Agrisilviculture: crops and trees Silvopastoral: pasture, animals and trees Agrosilvopastoral: crops, pasture, animals and trees Others: multipurpose tree lots, apiculture or aqua-culture with trees	In space: homegarden, trees in pastures, boundaries In time: temporal sequence of different plants	Productive function: food, fodder, fuelwood, other wood products Protective function: windbreak, shelterbelt, soil conservation, shade	Systems in different climatic conditions	Based on level of technology input: (low / medium / high inputs) Based on cost/benefit relations: commercial, subsistence

Source: own compilation based on Nair (1993)

Agroforestry is a potential tool of solving global food problems. Globally, about 800 million people are suffering from hunger. For solving food insecurity issues, an estimated 60% increase food production is required to meet the needs of the 9.1 billion people that are expected to exist by 2050 (Vos, 2015). For this increased production, changes in existing food systems management are required because of the environmental and climatic constraints. For longer terms, it is clear that more sustainable farming practices are needed and agroforestry is one solution to reach this goal. The use of ecological functions of trees, animals and crops gives potential of increasing food production while reduces agriculture's footprint on the environment. Besides its economic and environmental impacts, social benefits also shall be highlighted: working for poor people of less favoured areas (FAO, s. d.).

Discussion: agroforestry as a sustainable system

Agroforestry opens new opportunities to create value while providing protection to natural resources by supporting sustainable farms and woodlands, diversified farm income, clean air and water, habitat for wildlife, better soil structure, safe and healthy food, energy conservation and production, increased wealth in rural communities (USDA, s. d.). These opportunities cover the 3 pillars of sustainability (people, planet, profit), and meets most of the abovementioned requirements of sustainable businesses. *Fig. 2* displays the interactions in agroforestry. The main management question for agroforestry producers is to keep the balance between trees, crops and livestock, by keeping economic (profitability), market (consumers' needs) and environmental goals (soil and water issues, emissions, climate change).

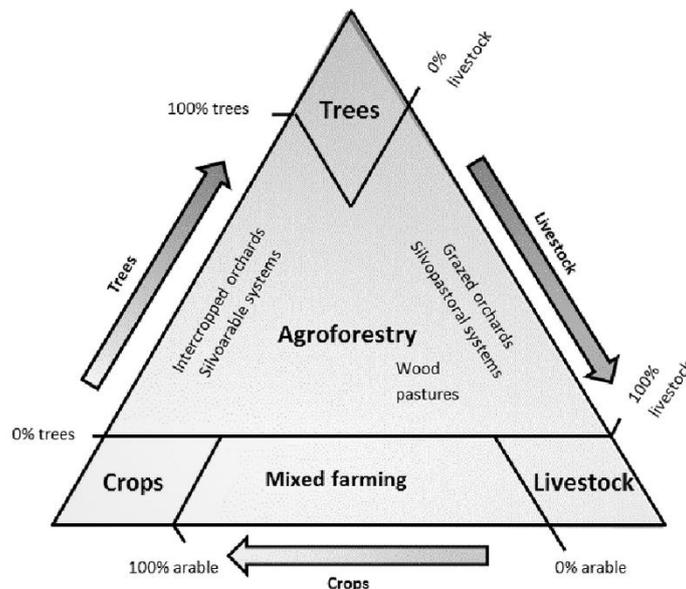


Figure 2: Interactions of agroforestry, crop production and animal husbandry

Source: Herder et al., 2015

For farmers and woodland owners, agroforestry is an important tool for successful and long-term agricultural production; it provides opportunities to diversify their production systems in order to be more profitable and to avoid risk. Moreover, these opportunities may benefit other players of the community, as new jobs may be created which may increase wealth in rural communities. In landscape aspects, agroforestry can reduce the gap between rural and urban areas by creating transition zones that help to reconnect agricultural production with people and communities, by creating a multi-functional and more sustainable landscape (Leakey, 2012).

In Hungary, mostly wood pastures and grazed forests are common, and these activities have always been an integral part of land use in Hungary. In the past century, the significance and operation of the so-called silvopastoral systems (wood pastures and wooded meadows) has reduced substantially. Grazing in forests is prohibited in those areas which are officially qualified as forests. In recent years, the available agri-environment EU subsidies, nature conservation management practices, and the rising demand for organic food led to start again farming activities in abandoned areas. The main benefits of silvopastoral systems include high quality food products and the preservation of high natural and cultural values, which may be attractive for the gastronomy and tourism (agritourism) sector (Varga et al., 2015). The present state of agroforestry methods, the role of the sector in economic, environmental and social aspects were evaluated under an EU funded international research programme called AGFORWARD. The main goal of the programme was promoting agroforestry practices in Europe in order to highlight its impacts on sustainable rural development, to check the viability of agroforestry systems in Europe, and to collect and evaluate good practices at a field-, farm- and landscape level, in order to promote the wider adoption of appropriate agroforestry systems (Varga and Vityi, 2017).

Conclusion

The benefits of agroforestry are widespread and related to all aspects of sustainability: economic, environmental and social fields. The benefits of agroforestry are wide and are depending on the different economic and environmental conditions. The general positive impacts of plant production under agroforestry schemes might be measured in more favourable microclimate, reduced wind velocity, improved soil fertility and rate of water infiltration to soil, enhanced biodiversity, more diverse production, increased efficiency, reduced nutrient runoff, and decreased levels of soil erosion. In terms of livestock production, the trees and shelterbelts gives shade and shelter for animals, which can reduce their energy requirement for keeping cool or warm. This may reduce feed costs and increases feed conversion rates. Another principal benefit of trees in the grassland or crop fields is the reduction in wind speed.

Principles of agroforestry offer a realistic path for a more integrated farm management, which can maintain or improve production potential, whilst also protecting farms against potential future environmental and climate change. Moreover, a more diverse range of products may be produced, the employment of rural areas (especially women and youth) may be improved. In order to be more popular and well-known, the access to information and *training* should be provided to rural advisors and farmers to stimulate the adoption of agroforestry.

After our present, general summary of sustainability in agroforestry aspects, the next step of our research will be to start an empirical research in this topic in Brazil and Hungary.

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ROLE OF FEMALE ENTREPRENEURS IN URBAN INDIA

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Abstract: There is a great need to create a new generation of female entrepreneurs in order to have the overall economic and social development of the country. In fact, this is a prerequisite for creating a good nation too. For the development of female entrepreneurship in India covering both urban as well as rural areas, a concrete effort is needed to be taken up by the society, the government, financial institutions, self-help groups, non-profit organizations to enhance the standard of women with regard to their entrepreneurial skills and knowledge. Imparting training to women in the realm of marketing and production goes a long way in ameliorating their socio-economic status in the society. The government has also emerged as a major catalyst by way of providing training incentives, various schemes and other facilities to empower women, as well as make them economically independent. In other words, it can also be said that the development of female entrepreneurship is an essential and integral part of human resource development. This paper is focused on female entrepreneurs in urban areas highlighting the present status, the government initiated schemes and policies, the problems faced by them in the existing competitive business environment, while also analyzing the key requirements to become a successful entrepreneur and prospects for the overall development and growth.

Keywords: female entrepreneurs, urban area, government schemes and policies.

Introduction

Women constitute around half of the total world population. In India, they are, therefore, regarded as the better half of the society. In fact, Indian women are considered as source of power (*Shakti*) since mythological times. In traditional societies, they were confined to the four walls of houses performing household activities whereas in modern societies, they have come out of the four walls to participate in all sorts of activities. The global evidences prove that women have been performing exceedingly well in different spheres of activities like academics, politics, administration, social work and so on. Now they have started plunging into industry also and running their enterprises successfully.

India being a developing country where share of women in national income is continuously increasing year on year but the attraction of women in entrepreneurship is negligible because it brings more responsibilities to them for both family and outside the family and if they are interested there are lot of challenges & constraints hinders them in doing so. However, it has been observed that mainly in urban areas, women have positive attitude & confidence to start their own venture. An attempt has been made in this paper to discuss the present status of women entrepreneurship in urban India, highlight the problems faced by them in the existing competitive business environment, key requirements to become successful women entrepreneur and prospects required for an overall development and growth of Women Entrepreneurs.

In order to understand concept of women entrepreneurs effectively, it is imperative to first understand the concept of Entrepreneurs. The Entrepreneurs play a pivotal role in shaping the economy and also helps in the socio-economic development of the country. By definition, an Entrepreneur is a person who is optimistic, resourceful, persistent with work orientation, goal setter and achiever. It is widely recognized that lack of entrepreneurship is a major reason for relative backwardness and slow development of the developing economy. Augmenting the supply of entrepreneurs who perceive new opportunities, convert them into viable business propositions, undertake business related risk and contribute to the growth of the economy by harnessing the available but dormant resource potentials – capital, labour, technology and markets is, therefore, essential for socio-economic development at all levels – regional, state level & national level. In this context, International Labour Organization (ILO) describes that “entrepreneurs are the people who have the ability to see and evaluate business opportunities, to gather the necessary resources to take advantage of them and to initiate appropriate action to ensure success”.

It is believed that entrepreneurs are born and not made. But it is not true. Entrepreneurs can be developed by proper technical, managerial and different education and trainings. The Entrepreneur must possess following basic qualities to become a successful Entrepreneur:

- Innovative thinking and farsightedness
 - Takes initiatives
 - Seizes opportunities
 - Strong determination and self-confidence
 - Effective and quick decision making capacity
 - Ability to manage resources
 - Preparedness to take risks
 - Accepting changes in right time
- Access and alertness to the latest scientific and technological information

Definition of Women Entrepreneurship

The women entrepreneur is a key to economic development. The emergence of women entrepreneur in a society depends to a great extent on the economic, religious, cultural, psychological and other factors. For developing country like India, the presence of entrepreneurs, that too women entrepreneurs are of vital necessity, to achieve a rapid, all round and regionally and socially balanced economic growth through industrialization. It also helps in tapping the inherent talents prevailing among them and act a panacea for many problems faced by them, such a dowry death, low freedom so as to freely mingle with mainstream of life sharing the nation building activity through realizing their full potential.

The term women entrepreneurship refers to socio-economic and political upliftment of women folk making them equal to their men counterparts in all respect. These include social status, self-sustenance and participation in decision making mechanism starting from grassroot level to the national level. A women entrepreneur is one who owns and controls an enterprise having a share capital of not less than 51 percent as partial/ shareholder/ directors of private limited company/ members of cooperative society.

The Government of India has defined a women entrepreneur is “an enterprise owned and controlled by a women having a minimum financial interest of 51 percent of the capital and giving at least 51percent of the employment generated in the enterprise to women”.

Type of Women Entrepreneurs

Traditionally, women entrepreneurs focused on the small business like fashion boutique, Food & Snacks and other service sector but recently women entrepreneurs have been moving rapidly into manufacturing, constructions and other industrial fields.

Women Entrepreneurs are broadly categorized into four groups mainly in urban areas which are as follows:

- Natural Entrepreneurs: Those women who take business as profession on their own either by self-planning or motivated through many factors and also for keeping themselves busy.
 - Generated Entrepreneurs: Those women who have been encouraged and trained through special training programmes such as Entrepreneurial Development Programme (EDP), to set up independent business.
 - Forced Entrepreneurs: Those women who are compelled by circumstances such as death of father or husband with responsibilities failing on them to take over the existing business,
- Benami Entrepreneurs: Those women who are acting as façade for business of their husband or father or brother.

Need for Women Entrepreneurs

Gone are the days when man could boast of being capable of feeding whole family. However, in rural sector, still about 66 percent of female population is idle, unutilized and not exposed to any entrepreneurial activities. This is mainly due to existing social customs and Indian women are generally undervalued and considered inferior to their male counterparts. The young girls and women are not allowed to work independently. Therefore, creating and developing more women entrepreneurs in India is nothing but giving them their due share of recognition and social respect. With the advent of liberalization policy, there is a lot for scope for growth of entrepreneurship under the private sector and at the same time the circumstances to develop women entrepreneurship have become congenial.

But now the scenario is changing fast with modernization, urbanization and development of education and business and women have started engrossing to modern activities. Moreover, women have become an integral part of the industrialized society. Women are now seeking gainful employment in several fields in increasing numbers with spread of education and new awareness. Women entrepreneurs are spreading their wings to higher levels of 3Es – namely engineering, electronics and energy. Women are pulling up units to manufacture solar cookers in Gujarat, small foundries in Maharashtra, TV capacitors in the industrially backward area of Orissa and women in Kerala are skilled in traditional and self-acquired crafts like embroidery, toys, mat weaving etc.

But still it cannot be said that women entrepreneurship movement has taken off at the ground and it is felt that movement is still in the transition phase and requires necessary support from Society as well as from Government for a speedy takeoff. Thus, promotion of women entrepreneurs requires a multi-pronged approach. Women should be motivated to come out of their traditional occupation for accepting more challenging and rewarding activities. Further, entrepreneurship for women can be planned and developed and the need for providing appropriate awareness and environment to promote entrepreneurship is of vital importance.

Review of Literature

Various studies and research have been conducted by the Social Scientists on women entrepreneurship at both micro and macro levels. Main findings of the studies have been discussed in following paras:

A study on Women Entrepreneur done by the Centre for Entrepreneur Development, Chennai reveals that, women entrepreneurship is relatively a new phenomenon in India – around 30 percent of female population employed in unorganized sectors and confined to activities such as weaving, garments, handicrafts & food processing. A few characteristics in their socio economic status are inevitable. They are:

- Psychological dependency of the business women on their family members in decision making.
- Sharing family responsibility simultaneously with their entrepreneur responsibility.
- Personality traits in communicating with others.
- Lack of proper interest and exposure to the things leading to run business.
- Lack of proper training before entering in to the business
- Interested only in routine matters and not involving in innovative innovations.
- Lack of marketing orientation in entrepreneurship.
- Inability to distinguish entrepreneurial functions from other functions like management, production etc.
- Mostly involved in producing consumer goods or intermediate goods.

The primary motive for engaging in some economically gainful activity by women are (a) a desire for gainful time structuring and (b) making money or more money to support her family (Sunanda Easwaran of Narsee Monjee Institute of Management Studies, Mumbai, 1991)

In India, women entrepreneurs represent groups of women whose task has been full of challenge and they have had encounter prejudices and criticism. They have to overcome family opposition and social constraints before establishing themselves as independent and successful entrepreneurs (Singh 1992).

The typical women entrepreneur like the independence associated with the entrepreneurial career, is a dreamer with high hopes and ambitions. She has a positive approach towards competition and confident of her ability to handle the problems and has a belief that hard work is sure ingredient of success in entrepreneurial venture (Dhillon 1993).

A women entrepreneur is an adult, innovative woman who undertakes to organize, own and run an enterprise, especially a commercial one, often at personal financial risk (Banerjee and Talukar 1997).

Women entrepreneurs exhibited many similarities with their counterparts in other countries vis-à-vis in Turkey in terms of characteristics, performance and problems. However they differed in other aspects such as in their reasons and motivation for starting a venture and problem encountered. Their differences also reflect in part the effect of a different social structure in a developing economy, particularly the impact of occupational segregation, wage disparity and participation in non-supported sector of the economy. Their findings suggest that the theories regarding women entrepreneurs based on developing economy need to be carefully examined before applied to non OECD and developing countries (Hisrich D. Rober and Ozturk A Sevgi 1999).

There is a need to increase awareness and availability of technology to women entrepreneurs for solving the problems of provision of quality of products as well as communication of success stories of other successful women entrepreneurs through various electronic and print media (Anil Kumar 2004).

The problems and constraints experienced by women entrepreneurs have resulted in restricting and inhabiting the expansion of women entrepreneurs in the major barriers encountered by them are lack of confidence, lack of working capital and socio, cultural barriers etc. (Kollan Bharati and Indra J. Parikh 2005).

The existing basic policy intervention packages in India are designed to reduce the effects of gender discrimination in factor markets, mainly financial which will help to create pro-growth business environment. The significant differences how various types of women entrepreneurs view growth, policy interventions should need to be better targeted if one wishes to see faster growing women run firms (P.Palanivelu and Hema Balakrishnan, 2006)

It is the need of the economy to adopt a more inclusive process for the development of its work force. In this regard, development practitioners should try to help women to overcome the existing resistance and should create awareness to recognize and value women's productive roles and their contribution to sustainable economic development. Entrepreneurship through cooperative societies is an ideal vehicle for empowering women and are suitable mechanism in enhancing the status of disadvantaged and marginalized women (Bishnu Mohan Dash, 2007).

Microfinance could be a solution for women especially in rural areas to help them to extend their horizon and offer them social recognition and empowerment. Therefore, the need of the hour is more institutional and government support for rural women entrepreneurs so that they can be included in the mainstream (D. Usha Kiran Rai and Monica Srivastava, 2008).

Lijjat Papad is an organization set up in 1959 by group of women who started with rolling papads, with borrowings of eighty rupees. These women had no formal education but felt that they can do something with free time that they had after finishing their family chores. Their commitment and perseverance has helped them to achieve success. Lijjat is not only helping the members contributes the family income but also empowering them as well as improving quality of their lives (Kakoi Sen and Gunjan M. Sanjeev, 2009).

There are number of factors that contribute the success of female entrepreneur in the face of challenges that she faces to succeed such as self-confident personalities, willingness to take risk, past working experience and innovative ideas (Kim Piew Lai, Robert Jeyakumar Nathan, Khong Sin Tan and Boon Bun Chan, 2010).

Thus, it revealed by and large, comprehensive and focused research on women entrepreneurs is scarce and scattered with only few studies of a view limited nature. Thus, there is a wide scope to further carrying out a research to understand the problems and issues faced by women entrepreneurs and need for more information on women entrepreneurs especially systematic and scientific information particularly in the country for its economic, social and industrial growth.

Present Position of Women Entrepreneurs

It is evident that women constitutes around 50 percent of world's population, do the two third of world's work hours, receive 10 percent of world's income and own less than one percent of world's property (ILO Report 1980). Women owned business are becoming increasingly important in the economies of almost all countries. To the U.S. Economy, they contribute more than \$250 billion annually and create new business opportunities at two to three times the rate of their male counter parts.

As far as women entrepreneurship in India is concerned, it is an area where women are also making their presence by contributing in the growth of the economy. According to survey report on Indian women, women entrepreneur constitute 47 percent of the total urban population. Since 1971, women work participation rate has been on the increase. It increased from 14.2 percent in 1971 to 19.7 percent in 1981 and 25.7 percent in 2001 at one hand and on the other hand men work participation rate declined from 52.7 percent in 1971 to 51.9 percent in 2001. This is due to increasing literacy and declining birth rate. Further, there is a growing presence of women in service sector also especially in transport, communications and financial services. But these areas are open only to educated women.

With the urbanization, majority of women entrepreneurs are engaged in the unorganized sectors like agriculture, agro based industries, handicrafts, handloom and cottage based industries. Thus, it is in the unorganized sector, mostly in the rural areas, that the overwhelming proportion of women in finding employment. Around 85.20 percent women in the rural area and 20 percent of women in urban areas are taking part in the unorganized sector. The vast multitude of women in unorganized sector is characterized by various factors like low earnings, seasonal and unsecure unemployment, woefully inadequate and non-existent supportive services, lack of access to credit facilities, weak collective bargaining power and very few opportunities for personal growth.

In the era of L.P.G (Liberalization, Privatization, Globalization) the Indian women entrepreneurs are very fast entering in the non –traditional sectors. Since the 21st century, the status of women entrepreneurs in India has been changing as a result to growing industrialization and urbanization, spasmodic mobility and social legislation. Over the years, more and more women are going in for higher education, technical and professional education and their proportion in the workforce has also been increased. It is also not out of context to mention that with the spread of education and awareness, women have shifted from kitchen, handicrafts and traditional cottage industries to non-traditional higher level of activities. Even the government has laid special emphasis on the need for conducting special entrepreneurial training programs for women to enable them to start their own ventures. Some of the supportive measures being initiated by Government of India in order to promote women entrepreneurship and further strengthen it like direct and indirect financial support, various schemes and programs, technological trainings and awards, federations and awards etc. Financial institutions and banks have also set special cells to assist women entrepreneurs.

This has boomerang the women entrepreneurs on the economic scene in recent years (refer below table A for leading business women in India) although many women's entrepreneurship enterprises are still remained much neglected field.

Government initiatives and schemes for the development and welfare of Women

There are various policies, schemes and programmes implemented by the government from time to time in order to improve the conditions of women lives by way of increasing their income, providing means to control their own fertility and increasing levels of human capital investments in females so that the next generation of women will be better equipped to contribute to the wellbeing of their families and the nation.

Under successive Five Year Plans, government has initiated several measures and policies to provide employment, training, and overall development as well as welfare of women and children. These include initiatives for economic and social empowerment of women and for securing gender equality in various aspects of social, economic and political life. The national policy for empowerment of women was adopted in 2001 with the objective of ensuring women their rightful place in society by empowering them as agents of socio-economic change and development. Empowerment of women is therefore, as important approach adopted in the Tenth Five year plan for development of women. The new industrial policy has stressed the need for conducting a special Entrepreneurship Development Programmes (EDP) and some other programmes supporting and promoting entrepreneurial skills. Government financial institutions and national banks also have special cells to assist women entrepreneurs.

It is also pertinent to highlight that the scope and coverage of the schemes for women and child development has been expanding, as is reflected in the progressive increase of expenditure incurred under various plan schemes by the Government. Some of the important schemes highlighted in Economic Survey 2010-11 are as follows:

- Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (launched in November 2011): The objective of this scheme is empowering girls in the age group of 11-18 yrs by bringing improvement in their nutritional and health status and upgrading various entrepreneurship skills like home management skills, life skills, vocational skills etc. This scheme is being launched in phased manner starting with 200 districts across the country on a pilot basis through Anganwadi Centres.

- The Rajiv Gandhi National Crèche Scheme for Children of Working Mothers: This scheme provides for day care facilities to 0-6year old children of working mothers by opening crèches and development centers having facilities such as supplementary nutrition, health-care inputs like immunization, Polio drops, basic health monitoring and recreation. As of now 22,599 crèches are functional and the number of beneficiary children is 5,64,975. This scheme will not only provide better nutritional support and overall development of children but also support working women who can concentrate in their jobs and / or business.
- Support to Training and Employment Program (STEP) for Women Scheme: This scheme seeks to provide updated skills and new knowledge to women in 10 traditional sectors for enhancing their productivity and income generation. It is being implemented through public sector organizations, state corporations, cooperatives, federations and registered voluntary organizations. During 2010-11, a total number of 91 STEP projects were under consideration at various stages.
- National Mission for Empowerment of Women (NMEW): This has been set up with a view to empowering women socially, economically and educationally. The Mission aims to achieve empowerment of women on all these fronts by securing convergence of schemes / programmes of different Ministries / Departments of the Government of India as well as State Governments. Alongside, the Mission shall monitor and review gender budgeting by Ministries / Departments as well as effective implementation of various laws concerning overall development of women.

Thus, from above it is clear that government is also giving due importance to women in their various schemes and special programmes related with poverty alleviation, employment generation and in several other social and family welfare programmes. But most of these programmes suffer from aphorism and leading to only marginal benefits to women. In view of this, it is imperative for the government to have more focus and attention in the implementation of various schemes and programmes at ground level so that maximum benefits can be extended to women.

Problem of Women Entrepreneurs

The growth of women entrepreneurial field is haunted by a number of difficulties, snags and problems in their efforts to develop the enterprise they have established. The main problems faced by the women entrepreneurs may be analyzed as follows:

- Shortage of Finances due to absence of tangible security and credit in the market as women generally do not have property in their names.
- High prices and or shortage of raw material required leading to disruption in production.
- Facing difficulties in managing workers for maximum usage and timely recovering of dues.
- Insufficient arrangements for marketing sale leading to exploitation by the middlemen.
- Lower literacy level leading to financial & managerial constraints and technical difficulties.
- Low level of favorable family background in the field of family cooperation, education, occupation and entrepreneurial base and mainly success depends upon their family support.
- Stiff competition from male entrepreneurs.
- Social Attitude and constraints in which women has to live and work.
- Low ability to bear economic risk, social risk, technical and environmental risk.
- Discrimination in selection for entrepreneurial development training
- Inferiority complex among the lower and middle class women community
- Family affairs, child and husband care, social and personal life
- Lack of entrepreneurial initiatives
- Unplanned and haphazard growth of women entrepreneurship in the country
- Lack of specialized entrepreneurial programmes for women entrepreneurs
- Late commencement of women entrepreneurship in India
- Procedural delays in getting bank loans deter many women from venturing
- At government level licensing authorities put all sorts of humiliating questions.

In addition to the above problems inadequate infrastructure, shortage of power and technical know-how and other economic and social constraints have retarded the growth of women entrepreneurship in India.

Key Requirements to become a successful Women Entrepreneurs

Women in India are facing many challenges and issues to get success in business. In this context, following are the key requirements for the women entrepreneurs to become a successful in this competitive business environment -

- To build up courage and self-confidence.
 - To fix priorities in family and business activities by allocating adequate time for both appropriately.
 - To learn new things and to undergo training on various skills of entrepreneurship.
 - Production orientation must be changed to marketing orientation, to gain the maximum satisfaction of the maximum number of customers.
 - Involving in Risk taking and taking effective decisions appropriately.
 - Preparedness to accept changes.
 - Elimination of unnecessary activities.
 - Building up a good relationship and working atmosphere for the employees within the organization.
 - Regular training programs to enrich the skill and potential of women entrepreneur.
- Change of the Family & Society attitude towards women entrepreneurship.

Prospects for Women Entrepreneurship - Discussion

India is a male dominated society and women are assumed to be economically as well as socially dependent on male counterparts. The hidden entrepreneurial potentials of women have gradually been changing with growing sensitivity to the role and economic status in the society. Following are key suggestions for the development of the women entrepreneurs –

- Women entrepreneur needs to be supported by family as well as society and brought into limelight as potential entrepreneur.
- Minimize tension and conflicts of split personality to realize their strengths and weaknesses to become a successful entrepreneur.
- Psychological and social changes have also to be inculcated to motivate women entrepreneurs to come out of their traditional role perceptions and responsibilities. Women have also to convert them from their position of job seekers to job givers
- Need for spreading awareness of Govt. organizations and their initiatives for promoting and providing various types of support to women entrepreneurs.
- Required tailor made programs / strategies/ policies for women entrepreneurship development based on regional structure and business area wise.
- Focus on women on entrepreneurial development programmes which will help in providing better employment opportunities and avenues for women entrepreneurs to become economically independent and self-reliance.
- Vocational training to be extended to women entrepreneurs that enables them to understand the latest production process, management and skills.
- Adequate management skills to be provided to women entrepreneurs to encourage them for participation in decision-making.

Counseling for women entrepreneurs should be provided to eradicate psychological hurdles like lack of self-confidence and fear of unsuccessfulness.

Conclusion

Entrepreneurship development among women can be considered a possible approach to economic empowerment of women especially in urban areas. A women as entrepreneur is economically more powerful than as a mere worker because ownership not only confers control over assets (and liabilities) but also gives her freedom to take decision. There is no doubt about the fact that the entrepreneurship if incorporated at right stage of women's education and trained in a healthy competitive environment will touch new heights of success and this will also uplift her social status significantly. For instance, recently, in Rajkot City of Gujarat, hundreds of women from the Dawoodi Bhora Community have initiated the idea of "Community Kitchen" a concept floated by their religious head four years ago in Mumbai with the objective that women should focus more on their children as

well as even start their own small businesses and will do more constructive work instead of spending most of time in cooking food. Under community kitchens, some of the women are making food for entire community and deliver the food at the doorstep of the families in tiffin. The community is promoting this practice worldwide.

The time has come when the government policies, schemes and initiatives to be highly focused on women entrepreneurship development and it will be much more than what is existing for providing appropriate awareness and environment to promote women entrepreneurship in India. The state of women entrepreneur is like the growth of new plants which require complete care and timely inputs, the follow up actions therefore strengthens the morale of entrepreneur and helps her in achieving the overall process of entrepreneurial development. Although there is a need from the part of the society to empower women entrepreneurs to become successful women entrepreneurs however at the same time young women should also realize their potential and should gain confidence and strength to come forward and march ahead with their male counterparts in this era of increasing competition.

It is also considered necessary to have a policy which can enable women in India to discharge their responsibilities as wife, mother on one hand for taking up social responsibility on the other, because entrepreneurship is only the answer to the unstable economy and raising expectations of the developing country like India. With some of these Ideas, it is hoped that new vistas and opportunities would open for women entrepreneurs.

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TYPE OF CHANGES AND THE PROCESS OF THEIR CONCEPTUALIZATION AND IMPLEMENTATION IN THE LIGHT OF RESEARCH

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Abstract: Entrepreneurs by trying to be competitive constantly create and implement changes that are the expression of their flexibility, adaptability, intelligence and the widely understood tendency to observe the environment, learning and the possibility of making accurate and quick decisions. The afore-mentioned features or the skills of the company often relate to its competitive success on the market. It is worth noting here that while the need to implement changes does not raise any controversies, the extent of changes and the speed and frequency of their implementation are often the subject of conflict between those with the competence to make decisions about their essence. The aim of the paper is to recognize the propensity to take risks or caution in the creation and implementation of changes in enterprises. In order to collect empirical materials, research was conducted using a questionnaire survey in 375 companies from the Silesian Voivodeship in January and February 2018. The survey consisted of a table containing the key features and differences between Kaizen changes and innovation changes, while this table was prepared based on the M. Imai study.

Keywords: change, creation changes, implementation changes, innovation, Kaizen

Introduction. Change - the essence of the phenomenon

In order to gather empirical materials that form the basis for further inference, research procedure was carried out. The first stage included a questionnaire survey, which included randomly selected entrepreneurs from the Silesian Voivodeship, these surveys were carried out in January and February 2018. The survey was sent by e-mail or provided personally by the author of the research. Some of the questionnaires were filled in by the students of the Czestochowa University of Technology Faculty of Management, who run their own enterprises and the entrepreneurs known by the author, such selection raised the return rate of the questionnaires. In total, 450 questionnaires were distributed, of which 376 were returned completely and correctly filled (Tab. 1.). The survey consisted of a label identifying the age, sex, size of the enterprise and the sector in which the enterprise operates and a table containing the key features and differences between Kaizen changes and innovation changes, this table was prepared based on the M. Imai study

Trying to be competitive, entrepreneurs constantly create and imply changes that are the expression of their flexibility, adaptability, intelligence and widely understood tendency to observe the environment, learning and the possibility of making accurate and quick decisions. The aforementioned features, or the skills of the company, often constitute its competitive success on the market. Generally speaking, one can create a thesis that the ability to exist in conditions of continuous change (Grzybowska 2010, p. 32) is a contemporary prerequisite for the existence of today's competitive enterprises. What is more, enterprises are struggling with changes identified in the external environment, as well as acting as initiators and creators of change (Pachura [online] 2017, p. 175). It is worth noting here that while the need to implement changes is obvious, the extent of changes and the speed and frequency of their implementation are usually determined by the attitude, approach, and willingness to risk of a decision making person acting in this area. The purpose of this publication and research conducted within its framework is to find answers to the following research questions:

1. What is change, how should it be understood and defined?
2. What are the classifications of changes in the categorization center that set the pace and their size and, consequently, the implementation risk?
3. What changes are preferred by Polish entrepreneurs? Are they more cautious in their decisions regarding changes or are they more risky in their decisions preferring the greater size of change?

In order to consider the categories and diversity of approaches to the subject of the change, it is first necessary to interpret its phenomenon based on a number of selected definitions drawn from scientific knowledge. Change is a complex phenomenon that affects a given part of both an enterprise and its environment, and the effects of changes may extend beyond its scope (Gryffin 2000, p. 393). This definition, although it concerns the changes of some part of the enterprise, may also go beyond the

area of changes, with various consequences. Transformation aimed at adapting to changing environmental conditions is systematically continuous, it is worth emphasizing that change is inevitable and no enterprise should defend itself against it, because it can have deep consequences (Stoner 1998, p. 306; Clarke 1997, p.7) "Change" is an indispensable phenomenon that saves the enterprise from falling (Zarębska 2002, p.19, Grzybowska 2010, p.33.) To sum up, this concept concerns the perception of changes between one state and another, which has no exactly the indicated effect, cause and form. (Nizard 1998, p.107) There is a series of classifications in the literature on the subject, thanks to which these changes can be grouped and described, characterized, with certain characteristics attributed to them and differentiated between each other.

The evolutionary and revolutionary nature of change. Innovation and Kaizen characteristics and differences of phenomena

Due to the fact that there is a great variety of definitions of change and there is no agreed common interpretation of its purpose, it is impossible to isolate individual types of it on one level of cognition. Researchers dealing with the issue of change classify them according to various criteria, which in their opinion define the purpose for which the division should serve. This does not mean, however, that individual types of changes are completely independent of each other, separated, on the contrary, often the same types of changes are assigned to several groups. The division of changes, which is important from author's point of view, is a division in which both the pace and the scope of introduced changes are taken into account. By applying this division one can distinguish revolutionary and evolutionary changes. Regarding revolutionary changes, the area of technological and organizational change is very extensive, which is a determinant of a new worldview for companies that operate in a given area in a short period, while evolutionary changes affect the position of the company in the longer term (Nowak-Far 2000, pp. 25- 26; Cichoń, Cisek 2013, PP. 512-513). A similar and equally important division of changes was proposed by Freeman, who distinguished radical changes and the ones improving the production (Freeman 1986, pp. 103-105). The first type of change revolutionizes production, it is rare and associated with high risk and innovations, while the second type dominates numerically in the structure of changes and is associated with the optimization and modernization of existing processes, products or organizational structures.

The classification, which takes into account the evolution of changes in Kaizen (Imai 2007, p. 30) or the revolutionary nature of innovative changes, polarizes the perception of changes by putting them on two opposite poles. When describing revolutionary changes, following terms are the most frequently used: innovative, creative, pioneering, with a wide range both in terms of technology and organization. In addition, it is pointed out that revolutionary changes are driven with rapid effects and a high degree of risk associated most often with the lack of experience and the scale of implemented changes. And evolutionary changes, referred to as Kaizen changes, are focused on: improvement, rationalization, optimization. Their effectiveness, on the other hand, is considered in the long-term perspective, with a low risk of implementation. One of the advantages of evolutionary changes is that they do not require advanced technology, and hence large financial outlays. However, low capital expenditure must be compensated by the constant effort and involvement of all members of the organization (especially those directly related to the production process, as they are best oriented in the needs and opportunities for improvement). The use of revolutionary changes - innovative can be compared to climbing stairs, while the introduction of gradual evolutionary changes in the style of Kaizen has much to do with climbing a gentle slope (Folejewska 2013, pp. 12-15; Fauzia 2017, p. 33). In Japanese management concepts, it is emphasized that slow monotonous action is better than fast but chaotic - similar to the tales of the turtle and the hare (Liker, Meier 2011, p. 191). Nevertheless, Western societies do not know how to work systematically and are focused on searching for new radical solutions, and the rush behind innovation will be overridden by everyday systemic activities, which in turn makes it difficult to use the Japanese Kaizen approach, causing them to stay behind Koreans and Chinese (King 2018, p. 64). Evolutionary changes shape the progress in a quiet and gentle manner, and radical changes allow for jumping effects (Baskiewicz, Kadłubek 2017, pp.123-128). In addition, there is an opinion that the system implemented as a result of innovation changes tends to deteriorate, unless continuous efforts are made to maintain and improve it. Thus, when a company decides to take innovative actions, it must take into account that even if it introduces

a revolutionary new standard, it will deteriorate, unless efforts are constantly directed to its continuous improvement, because the life cycle of products is getting shorter. In other words, innovations should be treated as a single isolated project the effects of which decrease with time, therefore they should be combined with Kaizen activities (Folejewska 2013, p. 13,), which is also confirmed by economic practice. Another feature of Kaizen that distinguishes it from innovation is the constant need for personal effort and commitment of each member of the organization both in the process of conceptualization and implementation of changes. There are theories claiming that Kaizen is oriented on people, while innovation is about technology and money (Imai 2007, p. 57). Kaizen changes differ from innovative changes primarily in the scope and ways of conceptualizing them, and in the later stage also in the implementation. It is emphasized that Kaizen changes require the involvement of all members of the organization, and thus the role of the changes leader focuses mainly on targeted activities in order to motivate and stimulate the creativity of subordinates. However, team-shaping changes at every stage of the process is more time-consuming than making decisions alone. What's more, changes can be created and implemented within an individual or group of people operating within the organization or creating a specific network with members from outside the organization. This duality determines another division of changes, which, according to the author, is important from the point of view described herein, as it ideally expands and deepens the characteristics of both types of changes. In this division we recognize coupled changes (they are the result of the work of a given number of people or organizations, where all the cooperating and interested persons must agree) and unconstrained changes (the author is one who deals with pioneer or imitative activity without affecting others, which are above all a rationalizing activity, consisting in not very extensive improvements of the work process (Spruch 1976, pp. 37-38; Pietrasiński 1971, p.9). Economic practice shows that coupled changes are, on the one hand, the most frequent, on the other being the most desired as well. The reason for this is the complexity of technology, technological progress and the very large costs associated with research and development that force creators to cooperate and interact with various institutions. Therefore, the modern environment of innovation needs an open and dynamic social potential, which in turn leads to non-stereotypical behaviors and social attitudes (Pachura [online], 2016, p. 146).

Research methodology

In order to gather empirical materials that form the basis for further inference, research procedure was carried out. The first stage included a questionnaire survey, which included randomly selected entrepreneurs from the Silesian Voivodeship, these surveys were carried out in January and February 2018. The survey was sent by e-mail or provided personally by the author of the research. Some of the questionnaires were filled in by the students of the Czestochowa University of Technology Faculty of Management, who run their own enterprises and the entrepreneurs known by the author, such selection raised the return rate of the questionnaires. In total, 450 questionnaires were distributed, of which 376 were returned completely and correctly filled (Tab. 1.). The survey consisted of a label identifying the age, sex, size of the enterprise and the sector in which the enterprise operates and a table containing the key features and differences between Kaizen changes and innovation changes, this table was prepared based on the M. Imai study. (Imai 2007, p. 54) The task of the respondents was to express their preferences by marking the X with the correct box in the table.

The survey involved 376 respondents (Tab. 1.), the largest percentage of entrepreneurs were medium-sized owners (54%) and small enterprises (42%), large enterprises were represented by only 4%. Nearly half of the surveyed entrepreneurs managed production companies (50.5%), 24% service enterprises and 25.5% trade enterprises.

Table.1. Structure of the research sample

Enterprise	Enterprise size		
	Small Numer	Medium Numer	Large Numer
Services	41	49	0
Trade	26	70	0
Production	91	86	13
TOTAL	158 (42%)	205 (54%)	13 (4%)

Source: Own study

After testing and counting all responses (Tab. 2), the following conclusions can be drawn:

1. As regards the effects achieved due to the changes, it is difficult to clearly indicate the preferences of the surveyed entrepreneurs. 44% indicated that they do not expect breakthroughs but expect that the effects will be long-term, and on the other hand 38% prefer revolutionary changes and 11% are convinced about it.
2. In total, 46% of respondents prefer continuous operation with gradually increasing effects, and 37% prefer incidental action with an immediate effect, and 17% do not have a clearly defined attitude. The lower results show the accuracy of previous applications.
3. When we talk about steps that describe the radical nature of changes, 40% of respondents prefer to take small steps, and big steps are preferred by 53%, which may indicate that the surveyed entrepreneurs, in a small majority, choose radical changes. Similarly, the situation looks like if you specify the preferred characteristics of the change 37% prefer gradual and continuous change and 51% choose innovative, step, and one-off changes.
4. Definitely the situation looks different when we talk about the approach. As many as 62% of entrepreneurs indicate that the team's effort and systemic approach are important both in the process of conceptualization and implementation, and only 35% are focused on individualism in both creating an idea and acting.
5. Taking into account the methods of work, it should be noted that the action focused on the so-called "Extinguishing fires" (69%) including improvement activities is contained in 28% of responses, which means that there is still too little attention paid to activities typical of the Kaizen philosophy, which in a way guarantees operational success and, consequently, competitive advantage.
6. Taking into account the approach to technology, only 33% opted for traditional technology, while 55% chose the use of technological breakthroughs and new inventions and theories
7. Introduction of changes for 58% of respondents is connected with the need to incur significant investment expenditures, which in the perspective does not require a great effort to maintain, and only 26% is focused on small investments, which, however, require a huge effort to maintain the effects of implemented changes.
8. 52% of respondents are oriented on people and 46% think that they should focus primarily on technology.
9. Improving processes and increasing commitment to achieving better results are the main factors determining change and constituting the basic criterion for their assessment is important for 51% of respondents, while for profit is important for 42% of entrepreneurs.
10. Most respondents (54%) are focused on stimulating collective work during conceptualization and implementation of change, while 42% say that individualism is important during the change process.

Table 2. Distribution of responses in the area of preferences typical Kaizen changes and innovative changes

	Kaizen evolutionary changes	Definitely Kaizen	Rather Kaizen	I don't know	Rather innovative	Definitely innovative	Innovative revolutionary changes
Result	Long term, but no breakthrough		167 (44%)	28 (7%)	143 (38%)	38 (11%)	Short term and break through
Steps	Small	10 (3%)	139 (37%)	28 (7%)	128 (34%)	71 (19%)	Big
Time framework	Continuous action with gradually increasing effects	106 (28%)	67 (18%)	64 (17%)	56 (15%)	83 (22%)	Incidental action with a sudden effect
Change	Gradual and continuous	89 (24%)	49 (13%)	46 (12%)	112 (30%)	80 (21%)	Sudden and single
Involvement	Everybody	4 (1%)	183 (49%)	14 (3%)	69 (19%)	106 (28%)	Few chosen leaders
Approach	Team effort, system approach	134 (36%)	97 (26%)	10 (3%)	113 (30%)	22 (5%)	Individual ideas and actions
Work method	Maintaining and improvement	28 (7%)	77 (21%)	12 (3%)	31 (8%)	228 (61%)	"Fire extinguishing" and reconstruction
Ideas	Conventional Know-how and traditional technology	42 (11%)	84 (22%)	44 (12%)	98 (26%)	108 (29%)	The use of technological breakthrough, new inventions, theory
Practical requirements	Requirements for small investments, but a huge effort to maintain		98 (26%)	60 (16%)	165 (44%)	53 (14%)	Requirements for large investments, but little effort to maintain
Orientation	People	66 (17%)	130 (35%)	8 (2%)	138 (37%)	34 (9%)	Technology
Assessment criteria	Processes and commitment to achieving better results	28 (7%)	164 (44%)	25 (7%)	109 (29%)	50 (13%)	Results directly affecting profits
Work type	Teamwork	128 (34%)	80 (21%)	9 (3%)	126 (33%)	33 (9%)	Individualism

Source: Own study

Conclusion

The nature of changes undertaken in an enterprise depends on the shape of management decisions taken in this respect. Conceptualization and implementation of changes is conditioned by the management model used in the enterprise and depends on the manner of exercising power, that is on the size of the enterprise, the existing organizational structure and above all on the owner's attitude, which shapes and indicates desirable behaviors among the management, including in relation to eg: flow of knowledge in the organization or proposals for changes made by the employees themselves. And the attitude of the owner is often conditioned by years of experience in business practice. Improvement changes are often reported by employees directly interested in its implementation, eg changes improving the production process introduced at the request of production workers. The sources of radical changes are most often the owners of enterprises, who, based on a wider range of information, make decisions on introducing strategic changes, entailing the necessity of incurring often significant investment outlays. Thus, the owners and the managerial staff together with the lower staff create a working climate that favors or discourages change.

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THE USING OF AGILE PROJECT MANAGEMENT PHASES IN PUBLIC PROCUREMENT

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Abstract: Today's enterprises have to meet the demands of a turbulent environment. The chances of the success of an enterprise participating in the implementation of projects in the field of public procurement, while also the opportunity to increase market share is created by Agile PM. The analysis of the enterprise Agile PM includes a Feasibility Phase and Foundations Phase. Even in small projects, they are not combined. Members of the team positively assess this mode of operation, because it facilitates a better understanding of the goal of every project.

Keywords: agile PM, DSDM, feasibility phase, foundations phase, public procurement

Introduction

Variable external conditions, growing competition are one of many challenges that a modern enterprise must face. „Both the domestic and foreign activities of business entities entice entrepreneurs to undertake various actions with the aim of achieving the desired market position. Enterprises strive towards the achievement of a highly competitive position on the market and maintaining such a position” (Skowron-Grabowska, Sukiennik 2015, p.1046).

"Contemporary organization operates in a rapidly changing reality, in which the changes take place in many spheres and fields of life - including political, legal, social, market or technological. The environment of the organization is also changing. Its complexity, volatility, uncertainty and unpredictability cause that contemporary organizations face serious challenges that they must face up to (Janiak 2011, p. 85). Enterprises operating on the market must, therefore, meet primarily the large competition and expectations of contractors. Special requirements are placed on entities whose activities are to a large extent the implementation of the public orders obtained. These enterprises have to deal not only with the challenges posed by the market situation, but also to meet the specific conditions of the public procurement. They are indicated by the ordering party and are directly derived from the applicable provisions of law. The uncertainty of entities operating on the public procurement market also concerns the possibility of joining public procurement procedures. Forecasting by a company that wants to apply for a public contract, what number of procedures in a particular field will be launched is very difficult. The amount of public funds granted to a given unit in a year determines the number of public procurement proceedings initiated by it. It is essential for every organization to analyze the environment in which it has to operate, in order to be able to identify the favorable prospects and opportunities at hand and avoid any unwanted effects of negative external factors influencing the situation” (Volkovaa 2015, p.479)

Enterprises for effective functioning on the public procurement market should demonstrate agility. The term agile is understood in various ways depending on the context of its use. One of them is agile culture, philosophy, (eng: mindset) (Koniczny 2014, p. 379) on managing complex projects, based on close cooperation of project participants, iterative product development process and understanding of the need to adapt to dynamically changing current design requirements. In Polish, agile means clever, mobile (Stanisławski 1988, p. 15). One of the challenges for enterprises is the unpredictable, changing environment. "Thompson (1967) argued that one of the organization's most important tasks is to manage uncertainty. Drucker (1968) describes the concept of entrepreneurship as a search for change, responding to change and using change as an opportunity "

Sharifi, Zhangs (2001, p772). Agility is recognized as the ability to respond quickly to changes and adapt to them. Cobb, behind David Rico, is agile (agility) as: the ability to create change and respond to it in order to benefit in a turbulent global business environment; the ability to quickly change the priorities of resource use when requirements, technology or knowledge changes; quick response to sudden market changes and emerging threats thanks to intensive cooperation with the client; the use of evolutionary, incremental and iterative methods of product delivery to arrive at the optimal solution

from the client's point of view; maximizing business value by means of processes and documentation implemented in the right size, as many as needed and exactly on time (Cobb, p. 4). However, now due to the unpredictability of the environment and hyper-competition it is not sufficient to develop one strategy that would allow for gaining competitive advantage. There appears a need for multi-scenario designing of the future (Griffin 2004, p. 223) or the creation of so-called choice options (Raynor 2008, p. 224) enabling flexible adaptation to the current changing market needs. Indispensable in this regard is the ability to capture subtle signals from the environment and creating based on them solutions that reject the current trends for the implementation of pioneering plans to play the market game. (Bieńkowska 2016, p.257)

The use of Agile Projekt Management by companies participating in public procurement may contribute to improving its market position. In the DSDM process (this term is used as a synonym for Agile PM) in the initial phases, the details of the project implementation method are not determined. Details appear over time in subsequent phases. This allows the company to join several tenders at the same time without having to engage all of its resources from the beginning. The purpose of the article is to try to answer the question whether these companies under Agile PM use the Feasibility Phase and Foundations Phase separately (basics) separately. These phases were chosen because they are two main ones. initial phases.

The research method used was the analysis of the subject literature, legal acts and documentation of tenders for company X, as well as an interview conducted with 32 people implementing projects in the field of public procurement.

The concept of public procurement

"Public procurement is one of the important issues of the functioning of modern states of law, where the authorities of this state are obliged to act on the basis and in the area of law. In the system of Polish law, it is also important that public procurement is inextricably linked to the spending of public funds, which takes place according to legal rules." (Sadowy 2013, p. 16). The legal acts give a legal definition of the public contract. "The European legislator focused on the contract as the key legal act for orders, because it involves making a declaration of will, in which an institution with public funds undertakes to pay. A similar solution was adopted by the Polish legislator in art. 2 point 13 of the Polish Civil Code, in which he concluded a legal definition of public procurement." (Wieloński, p.29) The statutory definition of a public contract is contained in Article 2 item 13 of the Act of 29 January 2004 on Public Procurement Law (i.e. Dz. U. of 2013 item 907, as amended.) According to which it is a paid contract concluded between the contracting authority and the contractor, the object of which are services, supplies or construction works. The legal definition of a public procurement is too narrow and does not fully reflect its essence. For a company participating in the public procurement process, it is a special type of project understood as a complex action or a sequence of unique and related tasks that have a common goal and are to be completed within the set deadline, without exceeding the set budget, as required (Wysocki, McGary, 2005, p. 47). For the contractor, the public procurement contract is one of the elements of this project. This is, of course, the necessary component part constituting the basis for possible claims of both the contracting authority and the contractor. The entire process related to the conclusion and performance of the contract is of crucial importance for the enterprise participating in public procurement. From the entrepreneur's point of view, all activities related to the public procurement contract, i.e. the conclusion and performance of the contract, any possible warranty repairs, are treated as one public contract. "The definition of public procurement *sensu stricto* does not allow exhaustive portrayal of the relationship with the public interest and the complexity of the phenomenon of public procurement. They cover a much wider scope than the contract itself, as they concern both the activities leading to its conclusion and the stage of implementation of contractual provisions. Public procurement law organizes this sequence of activities into a series of stages between which there is a relationship, conditioning one another and making up the whole." (Wieloński 2012, p. 31). Therefore, one should agree with the view that we are talking about public procurement in the strict sense of the contract, and public procurement in the *sensu largo*. Only the public procurement contract is too narrow a shot, its implementation and settlement should also be considered as a public contract" (Panasiuk 2007, p.60). In this study, the public contract is understood as a special project that begins the public procurement announcement, and it includes

actions aimed at the performance of the public procurement contract, possible actions in the scope of the guarantee and finishes the final settlement of the contract between the contracting authority and the contractor.

Agile Projekt Management – The process DSDM

DSDM is a proven framework for Agile project management and delivery, helping to deliver results quickly and effectively and, over the years, has been applied to a wide range of projects - from small software developments all the way up to full-scale business process change. DSDM was initially created in 1994 through collaboration of a large number of project practitioners across many companies who were seeking to build quality into Rapid Application Development (RAD) processes as they developed, primarily, business-focussed computer solutions. The Agile Project Framework is an evolution of DSDM Atern®, the previous version of DSDM. It provides the information that is essential to enable any role on a DSDM project to use DSDM effectively and to understand how it is applied in practice. (Agile PM s.10)

Although Agile originally referred to the delivery of software (computer), as a result of evolution, a method was developed that can now apply to any project, including public procurement. The DSDM process consists of six phases: Pre-Project Phase, Feasibility Phase, Foundations Phase, Evolutionary Development Phase, Deployment Phase, Post-Project Phase. The main are the phases: Feasibility Phase, Foundations Phase, Evolutionary Development Phase, Deployment Phase.

Each phase plays an important role in the Agile PM process. For the purpose of this study, the Feasibility Phase and Foundations Phase will be characterized.

The Feasibility phase is intended primarily to establish whether the proposed project is likely to be feasible from a technical perspective and whether it appears cost-effective from a business perspective. The effort associated with Feasibility should be just enough to decide whether further investigation is justified, or whether the project should be stopped now, as it is unlikely to be viable.

The Foundations phase takes the preliminary investigation from Feasibility to the next level. It is intended to establish a fundamental (but not detailed) understanding of the business rationale for the project, the potential solution that will be created by the project, and how development and delivery of the solution will be managed. By intentionally avoiding low levels of detail, the Foundations phase should last no longer than a few weeks - even for large and complex projects. The detail associated with requirements, and how they should be met as part of the solution, is intentionally left until the Evolutionary Development phase of the project.

For smaller, simpler projects, the Feasibility and Foundations phases can often be merged into a single phase.

The aim of Foundations is to understand the scope of work, how it will be carried out, by whom, when and where. The Foundations phase also determines the project lifecycle by agreeing how the DSDM process will be applied to the specific needs of this project. (Agile PM, s.29)

The Feasibility Phase and The Foundations Phase in public procurement of the surveyed company

The company in which the study was conducted is a limited liability company operating in this legal form in Silesia since 2003. The main subject of his activity is publishing, including publishing periodicals and periodicals. The company participates in public procurement primarily for services and their main subject are: printing and delivery services, as well as related services.

Table 1. Public procurement obtained in the tender procedure by the company in 2012-2016

Year	Number	Value
2012	3	538 621,10 PLN
2013	7	503 781,43 PLN
2014	6	808 253,90 PLN
2015	2	34 766,89 PLN
2016	8	187 009,89 PLN
Total	26	2 072 433,2 PLN

Source: a study based on the Public Procurement Bulletins of 2012-2016

In 2012-2016, the company received 14 service contracts and 12 public procurement contracts. The company has obtained 26 orders from 19 procuring entities, and the total value of tenders won is PLN 2 072 433. In the breakdown into individual years, the value and number of orders received is presented in Table 1. These are orders obtained exclusively in the unlimited tender procedure. The list does not include orders obtained in other modes. The project in the field of public procurement begins the announcement of the tender. The tender announcement is analyzed in: Pre-Project Phase. The Pre-Project phase ensures that only the right projects are started, and that they are set up correctly, based on a clearly defined objective. In this phase, ads are selected to ensure that only the right projects are implemented. If the content of the announcement shows the potential possibility of the contract to be carried out by the company, the next stage of Feasibility Phase will take place. Persons giving answers in the interview were informed about what activities are carried out in individual phases of Agile PM. To the respondents were given a set of activities that are carried out as part of the DSDM process in both initial phases. Based on the knowledge possessed from the completed projects, they assigned individual activities to the appropriate phase. According to the analysis of the answers given, in all 26 proceedings there were Feasibility Phase and Foundations Phase. Separately, although in the practice of using Agile PM in smaller projects, the phases can be combined (For smaller, simpler projects, the Feasibility and Foundations phases can often be merged into a single phase). In Feasibility Phase in the proceedings, the team participating in public procurement examined whether the company has the appropriate technical and economic potential to be able to perform the order and whether its implementation is economically viable. If the execution of the order at this stage turned out to be unprofitable, the project would not be implemented. The company would not participate in the tender.

The Foundations Phase collected information necessary to prepare the offer, determine who will make it and who will perform the order technically. At this stage, a decision was also made to independently or in cooperation with other entities perform the contract. The DSDM philosophy is that “best business value emerges when projects are aligned to clear business goals, deliver frequently and involve the collaboration of motivated and empowered people (Agile PM s.16) that is why the project team is so important.

At this stage, a team of persons who participated in the project implementation - from the submission of the offer to the last delivery of the subject of the contract and the closure of the project - was also formed. In this phase of the project arises The Business Case. It provides a vision and a justification for the project from a business perspective. The business vision describes a changed business as it is expected to be, incrementally and at the end of the project. The justification for the project is typically based on an investment appraisal determining whether the value of the solution to be delivered by the project warrants the cost to produce, support and maintain it into the future, all within an acceptable level of risk.(Agile PM p.39) The Business Case is prepared for the needs of project management and does not result from applicable law.

A public contract is a special project. The method of its implementation results not only from the will of the contracting party and the contractor but also from the applicable legal provisions. That's why creating The Business Case in Foundations Phase should take into account the applicable law.

Respondents positively assessed the occurrence of both phases in projects. They pointed out that their combination could cause difficulties in understanding the purpose of the project and its further implementation.

Conclusion

To succeed, today's enterprises must be managed in a way that meets changing conditions. It may be helpful to use Agile PM. In the examined enterprise, elements of this management appear in all types of projects, also in public procurement. The company's management seeks to fully use the DSDM and, therefore, even in the less complicated public procurement projects, Feasibility Phase and Foundations Phase were separate. This enables better understanding of the Agile PM principles by the company's employees and what is related to their greater involvement in the project implementation. The team implementing the project should organize itself, because it gives better chances for correct communication and what is connected with the success of the undertaking. In Foundations Phase, the team for the implementation of a specific public contract is selected by itself, so that the projects are

carried out by people who are not only competent and involved in its implementation. Knowledge of both the regulations governing public and technical contracts necessary for the proper performance of the contract is required from team members. Not every team participant must have comprehensive knowledge. Agile PM assumes that the people who make up the team have more potential than each of them separately. For the use of DSDM, the first two main phases play a particularly important role in public procurement, because a poor assessment of their own economic, financial, technical and intellectual potential can significantly reduce the chances of project success and even lose the tender.

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THE COMPANIES' INNOVATION ECOSYSTEM

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Abstract: Innovations create the competitive advantage of enterprises. It seems that during 14 years of the functioning of the funds that support companies' investment in innovations coming from the EU budget, enterprises should develop an appropriate ecosystem of innovation that would allow them to efficiently develop and implement new products or technology with cooperation in other entities. The paper will address the issue of the enterprise innovations ecosystem with relation to current market challenges. In addition, the paper presents selected results of research carried out in the period from November to December 2017 on a sample of 400 Polish enterprises obtaining support for development through innovation from the European Union budget.

Keywords: innovation ecosystem, innovation, technology transfer

Introduction

Innovations are one of the most important factors for company's competitiveness. For successfully implemented innovations companies must optimize their resources that allow them to do so. This means that they must, on the one hand, properly manage their own innovation system, and on the other hand, create their own innovation ecosystem.

The main objective of the article is the analysis of the possibilities of building an efficient innovation ecosystem by the analysed enterprises, which significantly contributed to the growth of their innovation

The European Committee for Standardization determinates the innovation management system as a system which consists of all the activities that are necessary in the process of creating innovations including (European Committee for Standardization, 2013, p.4):

- organizational conditions,
- leadership in strategy and innovation,
- planning activities to increase the market success of innovation,
- development of factors conducive to and driving the development of innovation,
- innovation management process,
- tools assessing the efficiency of the innovation management system,
- activities enabling the improvement of the innovation management system,
- innovation management techniques.

Good developed and effective working company's system of management innovation gives the basis for creating well operated innovation ecosystem with its inside and outside relations.

The innovation ecosystem can be defined as a set of links between different entities oscillating around a specific challenge, cooperating to provide comprehensive solutions (Kastalli, Neely, p.4). Essentially, such an ecosystem is created by all organizations whose common goal is to develop through/by innovation. Such a group of connections is characterized by symbiosis not only in terms of technical and technological resources possessed, including knowledge, but also with responsibility to implementation of development processes, absorption or commercialization of innovations (Fransman, 2014 p. 7-8).

Therefore, if we would like to talk about innovation ecosystem first the company should perform mapping or verification all of entities that could deliver all necessary value to the company's innovation processes. Then verify their business models and ways of providing value. In addition, determine the scope of their capabilities and competencies that are necessary for the organization to be able to meet the objectives set for the ecosystem itself.

Moreover, in order to be able to talk about the innovation ecosystem, its potential should be verified in the area of (Šinkovec, 2014, p. 2) e.g.:

- analysis of relations and connections between participants of the ecosystem,
- identifying the flow of funding for ecosystem participants,
- as well as [own work based on I.V.Kastalli,A.Neely, p. 5]:
- gaps in innovation level of ecosystem participants and real possibilities of their equalization - conducting innovation audits,

- indication of new areas of increasing the level of innovation,
- creating mechanisms that improve the processes of absorption and diffusion of innovation at the level of a given innovation ecosystem.

Within well operating company's innovation ecosystem, innovation itself should be perceived as an interactive system of creating value. The European Union recommended that the following factors should be assessed (High Level Group on Innovation Policy Management, 2013, p.14):

- managing a complex process of innovation on many levels,
- opportunities to change the perspective from regional to global economy,
- using a bottom-up approach to analyse the possibilities of protecting strategic competences and market orientations,
- the possibility of redesigning management tools,
- analysis of cooperation between science and business and its assessment mechanisms,
- impact assessment on competitiveness,
- relationships occurring at various levels of management and between sectors of the economy,
- the possibility of stimulating entrepreneurship,
- facilitating the social acceptance of innovation.

And the answer for the following questions should be given (High Level Group on Innovation Policy Management, 2013, p.14):

- whether there will be a demand for the results of the research being carried out,
- whether it is possible to carry out research based on recognized global standards,
- what are the general needs in terms of innovation requirements and competitiveness,
- which of the legal regulations must be corrected, subjected to changes in interpretation or eliminated?

Methodology of the research

The research, whose selected results were presented and discussed in this article, was carried out among 400 Polish, randomly selected, production companies from all over the country in 2017. The aim of the study was to obtain information on technology management enterprises and conditions of innovation in enterprises. The scope of the research included:

- analysis of technology management in the enterprise,
- analysis of barriers and benefits resulting from the purchase of technologies to date,
- analysis of technology management strategies in the company,
- analysis of the company's innovation level.

The study used the CAWI / CATI method based on the electronic version of the questionnaire, which consisted of 32 questions divided into 5 thematic modules and was built based on closed questions and the possibility of multiple and in some cases multiple choice of responses. The structure of the research tool is presented in Table 1.

Table 1. Structure of the research tool

Thematic module	Number of questions	The objective of the thematic module
Module A: Basic data about the enterprise	6	The purpose of this module was to define: <ul style="list-style-type: none"> • the scale of the company's largeness, • the legal form of the company, • cooperation within the cluster including the key cluster • the industry in which the company operates • value of generated revenues • the geographical area of the company's activity.
Module B: Analysis of technology management in an enterprise	11	The purpose of this module was to define: <ul style="list-style-type: none"> • the age of technologies used by the enterprise, • portfolio of owned intellectual and legal property, • does the enterprise have its own R & D department and the scope of research conducted in it, • cooperation with other entities in the field of research, • reasons for not conducting research in the framework of your own R & D department, • the current method of obtaining technology, • sources of financing for the purchase of technology and the value of recent purchases in this area

Module C: Analysis of barriers and benefits resulting from the purchase of technologies to date	2	The purpose of this module was to define: <ul style="list-style-type: none"> • barriers related to the purchase of new technologies • benefits resulting from the acquisition of new technologies
Module D: Analysis of technology management strategies in the company	5	The purpose of this module was to define: <ul style="list-style-type: none"> • scope of monitoring the development of technologies by enterprises, • scope of technology implementation and development of new products, • aspects of knowledge management in the enterprise, • policy in the field of intellectual property protection in the enterprise,
Module E: Analysis of the company's innovation	8	The purpose of this module was to define: <ul style="list-style-type: none"> • places of innovation in planning business activities, • sources of innovation used by the enterprise, • average period of creation of innovative products in the enterprise, • scope of cooperation between the company and other organizations in the area of new product development, • accepting failure in the development of a new product, • the area of further investments in innovations, including new technologies.

Source: Own study

The sampling frame included 400 enterprises operating in Poland, which raised funds for development through innovation from the European Union budget. As a result, 400 enterprises took part in the survey, including 93 micro, 157 small, 127 medium and 23 large business entities.

Results of the research

Considering that the target group was represented by enterprises acquiring support funds for development by innovations from European Union funds, it is surprising that only 11.8% of all surveyed enterprises declared to belong to the area of national smart specializations, and 66.3% could not clearly determine whether they belong to any cluster, especially the National Key Cluster.

Moreover, 22.1% of the analysed companies used in their basic production processes technology older than 10 years and 20.6% between 5 and 10 years. It is interesting that 21.7% of the surveyed companies use two or three years of technology for these processes and 15.8% companies use technology, which is not older than one year.

According to the conducted research, in case of 53.3% of the surveyed companies, they have their own research and development departments and, based on them, most often run:

- development works - acquiring, combining, shaping and using the currently available knowledge and skills in the field of science, technology and business and other knowledge and skills to plan production and creating and designing new, changed or improved products, processes and services, e.g. experimental, development of prototypes, testing of products, processes and services - this takes place in 36.7% of cases of the surveyed companies,
- implementation works - they consist in the development of methods and techniques for the application of research results in industrial production, they constitute the transfer of research results from the laboratory scale to industrial scale - which takes place in 34.9% of the cases of the surveyed companies.

Research also shows that surveyed companies that intend to developed and implement innovations will be in:

- 22.2% use their own R&D facilities,
- 26.6% cooperate with national R&D institutions,
- 22% cooperate with domestic machinery and equipment manufacturers,
- 20.4% have the intention of establishing cooperation with foreign machinery and equipment manufacturers.

The results are shown at the figure 1.

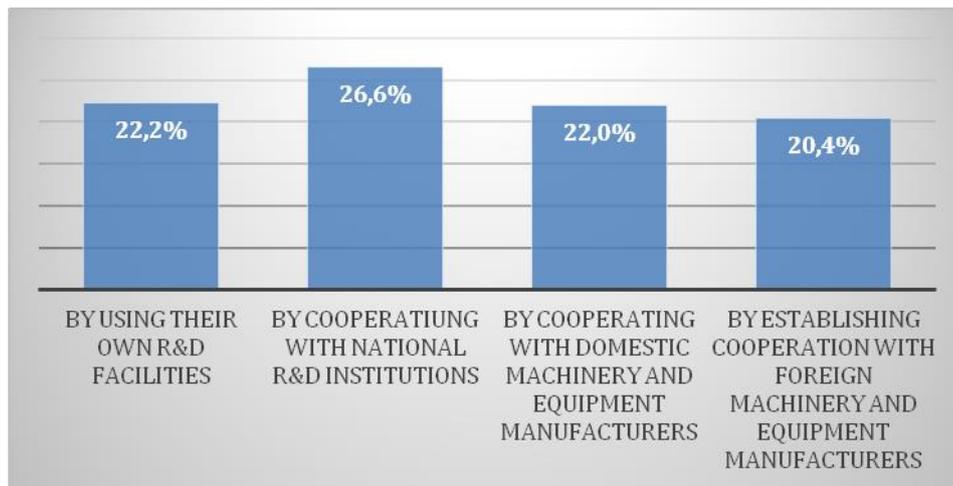


Figure 1. The way of developing and implement innovation by companies

Source: Based on own research

Moreover, companies were asked to indicate the main sources of creating innovations, and so, for:

- 9.3% of them are employees of the company,
- 6.1% buyers of products, in 8.3% competition,
- 11.1% trade fairs and exhibitions,
- 11.6% Internet,
- 5.7% of national R&D institutions,
- 2% foreign R&D institutes,
- 3.4% universities (including technical universities),
- 0.8% innovation brokers,
- and in 3% consulting companies.

When asked about possible areas of cooperation with other entities in the field of innovation development, companies replied that they intend to cooperate in the following fields:

- conducting research and development works - 24.8%
- purchase or lease of technological lines used for prototyping - 20.8%
- improving professional qualifications of proctors - 19.9%,
- 12.7% of the surveyed companies will not intend to undertake such cooperation.

These results are shown at the Figure 2.

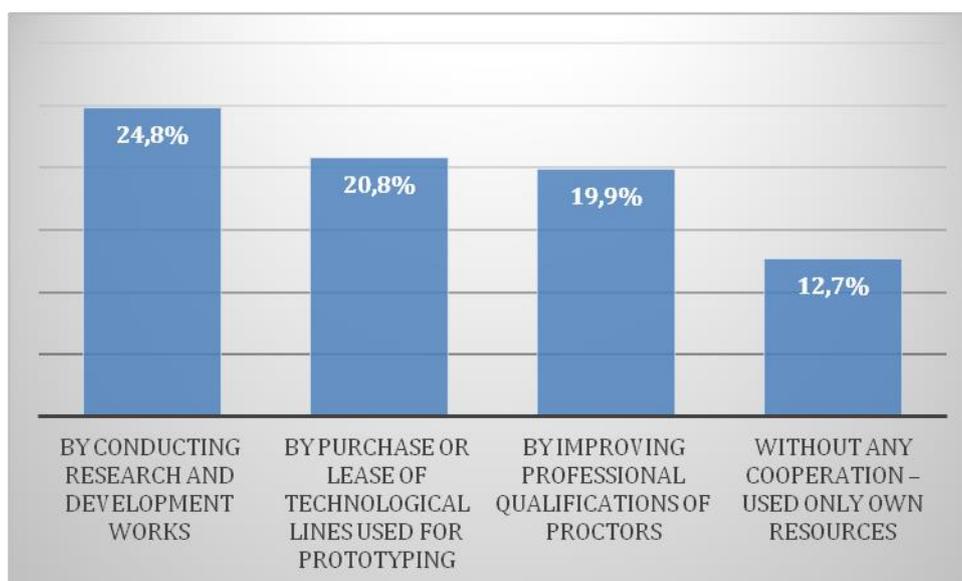


Figure 2 Possible areas of cooperation with other entities in the field of innovation development

Source: Based on own research

It is also interesting that in 85.5% of cases, companies intend to invest again in innovation, and as the main area of investment declare: the development of new products (12% of indications) and the purchase of new machines and devices (13.7% of indications).

Discussion

Selected research results clearly indicate that the analysed enterprises, despite the declared development of companies by innovation, are at an early stage of development of their own innovation ecosystems. Such an ecosystem assumes not only the analysis of the company's potential in the field of innovation development, but its willingness to cooperate with other organizations for this purpose. As the research shows, a small number of respondents of such enterprises assume such an implementation of innovation processes. It is comforting that all the surveyed companies can fill in to the frame of regional (or national) innovation strategies, which will show in its intend in further investments in new technology and products. Unfortunately, despite the 14-year history of European Funds, is saddened by the fact that universities (also technical universities) are not a main source of new ideas for innovation for these companies. Like innovation brokers, their potential is marginalized by the surveyed enterprises. In this case the dominant role of the fair (industry exhibitions) or the Internet could still be seen.

Conclusion

The conducted research indicates a certain trend, which the author of the paper notes from almost 12 years of experience in the field of research on the organization's innovativeness and technology transfer processes. Namely, enterprises recognized EU funds as their main source of external financing of investments in innovations and they perfectly match the requirements set in such projects. Unfortunately, it is only recently that their main requirement is full cooperation of R&D institutions, including universities or other enterprises, to implement innovations. On the other hand, also recently, universities have seriously addressed the issue of technology development in terms of its practical application in industry. This situation meant that enterprises could only create an innovation management system, not an innovation ecosystem. An ecosystem that is based primarily on external relations of the enterprise. It seems that one of the ways that companies can create its innovation ecosystems is not only the development of other sources of external investment financing, such as Private Equity Funds, but other legal solutions that will push R&D institutions to create stronger connection in cooperation with companies at the whole R&D fields.

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STRATEGIC ANALYSIS OF DOMESTIC FIRMS IN ANGOLA USING MINTZBERG'S 5Ps OF STRATEGY: CASE STUDY- PANGEA BAKERY, LUANDA ANGOLA

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Abstract: This paper examines the reasons why domestic individual firms in Angola struggle to grow and survive in the market. Most of the domestic individual firms in Angola have the same pattern of management. It may be termed a "one man show". This paper will conduct an analysis of the firm PANGEA Bakery, which is an individually owned domestic firm supplying bread in big supermarkets in Angola. The case presented is based on a series of personal interviews with staff members. On this basis, this article will present the history, the organisation and employment structure of the company. The results of the analysis will determine the setbacks and suggestions on how to overcome them using strategic management tools and techniques.

Keywords: strategic management, Mintzberg's 5Ps of strategy

Introduction

There is a need in modern times for emerging domestic business owners in developing countries specifically in Angola to be continuously taught on management strategies in order to achieve agreed goals and objectives, giving a sense of purpose and direction to the organisation because of social and technological changes, survival and competition from rival firms.

This paper will look at the case of PANGEA Bakery which is a domestic company producing and supplying bread in large supermarkets using Mintzberg 5Ps of strategy. Mintzberg 5Ps of strategy were created by Henry Mintzberg providing five definitions of strategy which are:

- Plan: some sort of conscious intended course of action, guideline to deal with a situation;
- Ploy: specific manoeuvre intended to outwit an opponent;
- Pattern: a pattern in a stream of actions;
- Position: specifically a means of allocating an organisation in an „environment“;
- Perspective: is content consisting of not just a chosen position but of an ingrained way of perceiving the world.

It is from the above perspective I intend on presenting my study, understanding each P and how they can be applied in solving some of the setbacks PANGEA Bakery is encountering in some area of its managerial system.

Profile of the Company

PANGEA Bakery is a bakery retail and wholesale establishment located in Luanda Angola with expectation of catching the interest local customers with its broad variety of bread products. PANGEA Bakery was launched in 2011 with aim of producing and supplying bread. The company produces almost all kinds of popular bread that are on demand in the Angolan market. The company is in fact a big player in the bread market. Since 2017, the company started not only making bread but also supplying bread raw products for the supermarkets to be used by the supermarkets personal bakeries. The company consists of one owner who is a sole decision maker for the company and a number of 20 employees. Over 90% of them are uneducated and have just simple skills that they received on training on how to make bread.

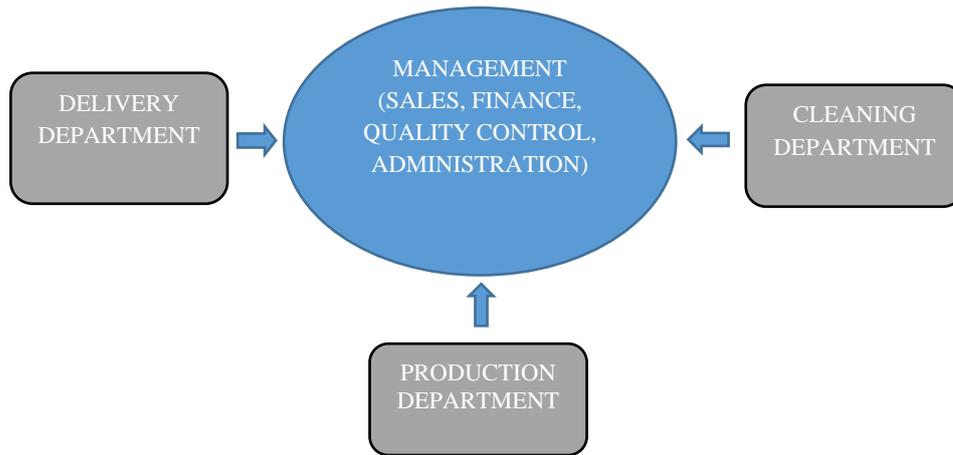


Figure 1. Organisation and Employment Structure of PANGEA Bakery

Source: Own study

The managerial department consists of the owner who single-handedly controls the quality of the bread, has direct contact with the clients, makes all invoices and does all administrative work. Also all other departments around him have to personally report to him directly. The owner handles the firing and hiring. He also personally controls stock with the help of the cameras. All employees have direct contact with the owner. The owner does not delegate power. In every week, the company has a history of firing up to 2 employees. There is a constant change of employees. The company has the same big clients since it started, it just expands because the clients are expanding by opening new branches.

Using the company profile and its history, this paper will study the organization structure, the environment of the business so as to be able to determine the setbacks that the company is encountering and apply Mintzberg 5Ps of strategy. Also based on series of personal interviews with staffs, this paper will examine why the company is struggling to grow and perform well in the market.

Results

The analysis of the company profile is a major stage in this study so as we know how we can come up with suggestions and conclusions. In order to be able to use the Plan, Ploy, Pattern, Position and Perspective of Strategy. The analysis of what the company has achieved so far and what are the setbacks that it encounters at the time have to be put out so it can be easy for the study to see where to start to plan and use other Mintzberg 5Ps of strategy. Below is what PANGEA Bakery has achieved so far and also the setbacks that it has encountered:

PANGEA Bakery is well established in the local market. The company has a broad portfolio of bread products and also has very big clients. PANGEA Bakery has made very good influential friends within the business which guarantee it to be on the market as long as those clients are also still on the market. The company has opportunity to grow because most of its clients use skilled imported labour from Portugal and Brazil. The clients are growing very fast opening new stores around the country which gives an opportunity for PANGEA Bakery also to grow.

The main issue is the lack of effective organizational structure, which is mainly caused by lack of skilled labour force. The work load is relied only on one person which at the end of the day, the results are also not good enough and stressful. There is no system created to make sure that the labour force receive some basic training apart from bread making i.e. Trainings such as safety training, basic management training, or even general awareness training. Also the issue of outdated machines, is a big problem i.e. Lack of backup plan or plan B. Angola is one country that experiences a lot of power cut but in a company as big as PANGEA Bakery, you will still encounter that plan B which is a power generator has some technical issue and cannot support the machines. PANGEA Bakery operates mainly in the local market, therefore, the main threat for the company is the increasing presence of external companies which have better technology and better skilled labour.

Strategies are made in advance of the actions to which they apply and they are developed consciously and purposefully. When it comes to a case such as PANGEA Bakery, the reader can see that for a small firm a 'one man show' type of management is not a bad strategy as long as the work load is manageable because it involves also very low costs of managing but as the firm start growing, this is mostly determined by production then the manager has to sit down and plan new strategies on how to be able to reach the goal. Through discussions and suggestions of the Analysis of PANGEA Bakery we can be able to see what conclusion the paper has come up with.

Discussions and Suggestions Using Mintzberg 5Ps of Strategy

The aim of this study was to analyze the presented case in terms of its strategic managerial techniques. Using Mintzberg 5Ps of strategy, the study came up with suggestions on how to overcome some setback hence bring forth better results (Mintzberg 1992, Mintzberg 1987, pp 66-75)

1. Plan

In case of PANGEA Bakery, a strategic plan must be carefully crafted. From the results above, the study shows that the company is operating without a specific plan and it is difficult to know their long term goals and objectives because they are not well defined. The company needs to restructure their management system and the owner should start delegating responsibility to other employees so as to ease down the load. It is not 'rocket science' study for a person to know that as the company is growing so are the responsibilities and this will make it very difficult for a single man to handle everything. He should start by at least hiring a skilled secretary who can handle the paper work. This will include also handling of all office responsibilities such as cleaning personnel. The owner can also have another skilled personnel that can handle production and delivery personnel. This planning will allow the owner to have time to deal with most important tasks in the company. It is important for PANGEA Bakery as a business to have clear objectives. This will help as to plan what measures or steps should be taken to achieve those objectives.

2. Ploy

Assuming that PANGEA Bakery has planned on what they want achieve, they should use a scenario analysis as part of their ploy strategy. This is because no one has a full proof vision of the future. The company should come up with different ploy so as to outwit the opponents. It is obvious that any decision will affect the business whether in a good way or a bad way. That is why a scenario analysis will help the company bring all its fears into the open. By creating scenarios, it will force to challenge any assumption about the future of PANGEA Bakery. The best example of a scenario in this case will be what if the big clients' collapse. What will ensure the future of PANGEA Bakery? By shaping the plan and decision basing on this scenario, we can ensure that even if circumstances change, the decision will still be the same. The marketing strategy is one good asset for the company. This will help the company to not only depend on the pre-existing clients but expand in a way that it is making new clients in the market. Investing on new technology will be a plus for PANGEA Bakery as well. But this will also mean as a company it should try to invest on skilled labour. Also, there is a problem of skilled labour in the country, so as to not import skilled labour from abroad which is more costly and time consuming, PANGEA Bakery can organised management and entrepreneurial training for their staff. This will be a smooth transition of transfer of knowledge. Skilled labour is the future of the business because they come up with better ideas on how to grow as a company and stay relevant in the market.

3. Pattern

Defining a plan in PANGEA Bakery is not sufficient, the goal is for that plan to be realised. Therefore, the company has to come up with a stream of actions so as to bring the plan into reality. The study has suggested patterns that can be implemented hence bring impact. Patterns such as transformation of unskilled labour to skilled labour, developing positive corporate culture, investing on new technology, restructuring the organisation management system. Above are just few, but a company can adapt to other positive pattern that other domestic companies have and are successful. For example, having monthly meetings with the team leaders so as to know the problems and setbacks that the company has. When the company is consistence is this actions, it will definitely bring positive outcome.

4. Position

The company has already positioned itself in a good the market. It just lacks competitive advantages. There is a growing number of competitors both domestic and international companies. There is no specific uniqueness of the product. There is a big threat of new entry to start supplying for their current clients if the clients continue expanding and PANGEA Bakery will not be able to manage. The company's weapon is it has good relationship with the client and have guarantee to stay in the market. The company should use this weapon well to position itself solid in the market. The company should take this opportunity to invest in better equipment and open up new markets. Due to economic factors that businesses don't have easy access on credits is a plus for PANGEA Bakery. It has some time to develop itself as a business.

5. Perspective

The way an organisation perceive things rely heavily on its culture. A corporate culture is one of the key for success or failure of an organisation. A wrong culture that PANGEA Bakery has of 'a one man show', is making it difficult to adapt in the fast changing community. A suggested culture of knowing how people really do to get work done and how information flow around the company can be very influential in PANGEA Bakery. Knowing if the structure allow people to work together effectively. Also seeing if the work done is in a well-coordinated manner. A question such as do the employees in PANGEA Bakery feel motivated or are they committed to what they do. The study conducted shows that the workers are not motivated and they don't see their future in PANGEA Bakery as they are not motivated enough or hoping that one day they will also occupy a certain position. This is a wrong culture and it is bound to bring failure in the company because the workers are not devoted on what they do. A suggested culture will be creating a pattern that the employees will forecast a best personal future for themselves as well. This will create true devotion and loyalty in the company. A culture of encouraging good teamwork and creative collaboration will be a plus as the company is dealing with unskilled labour.

Conclusion

Instead of trying to use Mintzberg 5Ps of strategy as a process to follow while developing a strategy in a case such as PANGEA Bakery, the leader should think of them as a variety of viewpoints that they should consider while developing a successful strategy. There are a lot of cases such as PANGEA Bakery in Angola and I believe that this paper gives an insight using Mintzberg 5Ps of strategy of how things should be adjusted especially when dealing with companies that are going through the same type of management system. And keeping in mind, the study does not conclude that 'one man show' is a bad management. It works well in small start-up companies but it is frustrating when the company keeps on expanding (<https://www.afdb.org/en/countries/southern-africa/angola/angola-economic-outlook/>). The study also does not specify economic and political problems that are mostly the core of unskilled labour i.e. the previous wars that the country encountered and the drop of the price of oil that affected the all economy of Angola but instead the study covers the crucial business development problems that businesses encounter such PANGEA Bakery and how they can be overcome using Mintzberg 5Ps of strategy.

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EMPLOYMENT AND LABOUR PRODUCTIVITY IN THE AGRICULTURE OF HUNGARY

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Abstract: The aim of this article is to evaluate the agricultural labour productivity of Hungary compared to the European Union and the other Visegrad countries. The data of analysis has been acquired from the database of the Hungarian Statistical Office and European Commission Eurostat database regarding the period between 2004 and 2016. Since EU accession, the share of agricultural employment in the total employed population has been stabilized at around 5% in Hungary. Due to low wages, low profit and low prestige, employment in the agricultural sector is not attractive. The aging agricultural labour force is a trend in the EU, as well as in Hungary. The gross and net labour productivity gap between Hungary and the EU has been significant since EU accession. Labour productivity is more than two times higher in the European Union than in Hungary, which influences the cost, profitability and competitiveness of products. The advantage of the cheap labour force in Hungary's agricultural sector has significantly decreased due to low labour productivity. There are several opportunities to increase the agricultural labour productivity, such as increasing the labour force qualifications, moving toward producing higher value added agri-food products, the rejuvenation of population in agriculture and improving the conditions of the financing of agriculture.

Keywords: agriculture, annual work unit, employment, gross value added, labour productivity

Introduction

Working people in the agriculture of the European Union is different from a state to another regarding age structure, training level, productivity, income and living standard (Popescu 2013). Compared to other branches, the agricultural sector has some special characteristics. The family farms dominates in most EU Member States agriculture. Many farmers work in agriculture as a part-time activity and have other more or less important sources of income. The agriculture is characterized by seasonal labour peaks, where a great numbers of workers may be hired for relatively short periods (European Commission 2013). In our paper we outline the situation of employment in the Hungarian agriculture. The aim of this article is evaluate the agricultural labour productivity of Hungary compared to the European Union and to the other Visegrad countries.

Labour market of the Hungary's agriculture

The Hungarian agriculture played an important role in providing stable rural employment and in ensuring food safety in the past. After change of regime the labour force in the Hungarian agriculture has dramatically decreased (Bogárdi 2013). The people working in agriculture declined by 38% between 1990 and 2016.

The diminishing role of agriculture in the economy entailed the declining share in total employment. In 2010, the number of people working in agriculture was only 173 thousand. However, the trend reversed owing to the economic crises which impacted on other economic sectors and as well as the simplification of the bureaucratic seasonal work permit process (Potori et al. 2014). Since 2011 the number of employed people increased in the agricultural sector and reached the 217 thousand in Hungary (in 2016). (Table 1)

Table 1. Employment in Agriculture (in thousand)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Employed persons	190	181	168	174	172	184	193	185	190	203	217

Source: Hungarian Central Statistical Office 2017

Hungary is on the 9th place in the European Union as regards the share of the population employed in agriculture in the working age population. Since EU accession the share of employment in agriculture in Hungary has been stabilized at around 5%. The employment rate of men in agriculture moved above the average, but the employment rate of women moved below the average. The agriculture for men is more important in terms of providing employment. Remarkable, that only 27 percent of the employed in agriculture are women in Hungary.

In Hungary, the agricultural production is mostly based on family farms. Most of the Hungary's farms are relatively small, family-run holdings. Often, the family members provide labour. Agriculture is also characterised by seasonal labour peaks, with high numbers of workers hired for relatively short periods of time. There are a large number of people providing labour within agriculture, many of these will have their main employment elsewhere sometimes including the farm owner (Hamza et al. 2017). The agricultural labour input is measured in AWU (annual work unit), which can be defined as full-time equivalent employment (corresponding to the number of full-time equivalent jobs) and represent the total number of days worked in a given year by the salaried and unsalaried.

The labour input was equivalent to the agricultural activities of 434 thousand workers in 2016. The total agricultural labour input of Hungary declined over the period 2004-2016 by 21.5 %. The non-salaried labour input went down by 29% compared to the base. Meanwhile, the salaried labour input increased by 4% between 2004 and 2016. The ratio of non-salaried labour input to salaried labour input fell by 32% (from the previous ratio 3.35 to 2.29) during the examined period. It can be concluded that farmers substitute a part of the declining non-salaried labour by salaried input. (Figure 1)

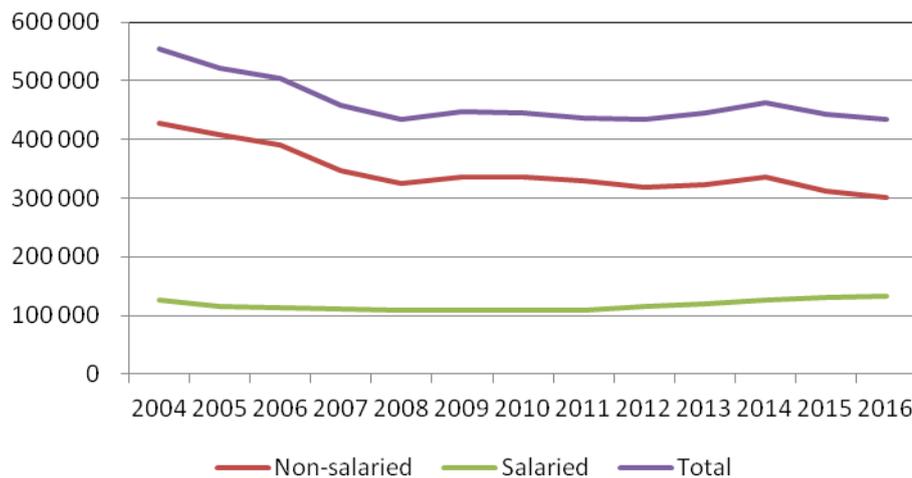


Figure 1. Evolution of agricultural labour input (in AWU)

Source: Hungarian Central Statistical Office 2017

Due to low wages, low profit and low prestige the agricultural job is not attractive. Aging agricultural labour force is a trend in the EU as well as in Hungary. The age structure of agricultural workers is worse than the average of other sectors. The average age of agricultural employees reached 48 years in 2016. The share of farmers in the younger age category (25-34 years old) is only 15%, but the share of farmers in the older age category (over 55 years old) is 59% in Hungary. The average age of agricultural farmers was 57 years in 2016.

It should be also mentioned that the traditional, integrated forms of supplementary earnings (e.g. household farms) have been greatly reduced since 1990. This has had a negative impact not only on the people living in the rural areas but also on the employees working in other sectors of the economy.

Methodology

The data of analysis came from the database of the Hungarian Statistical Office, the European Commission Eurostat database and Knoema Economic accounts for agriculture database regarding the period between 2004 and 2016. Productivity is a quantitative measure of the relationship between input and output. Labour productivity indicates how efficiently labour is used in production. Productivity can be commonly defined as a ratio of output to a measure of input use. Labour

productivity is equal to the ratio between a volume measure of output (output of agricultural industry or gross value added) and a measure of input use (AWU) (Freeman 2008). The annual working unit is a practical indicator. The labour force survey has the speciality that observes labour in farms partially, furthermore, the institutional statistics not at all; therefore the annual working unit is a more precise indicator (Andrási and Bóday 2012). The productivity indicators can be classified into two parts: the partial productivity category and multi-factor productivity category (Szabó 2003). (Table 2)

Table 2. Productivity Measures

Type of output measure	Type of input measure			
	Labour	Capital	Capital and labour	Capital, labour intermediate inputs (energy, materials, services)
Gross output	Labour productivity (base on gross output)	Capital productivity (base on gross output)	Capital – labour MFP (base on gross output)	KLEMS multi-factor productivity
Value-added	Labour productivity (base on value-added)	Capital productivity (base on value-added)	Capital – labour MFP (base on value-added)	-
	<i>Single factor productivity measures</i>		<i>Multi-factor productivity (MFP) measures</i>	

Source: Schreyer 2005

In the article we evaluate the labour productivity of agriculture by comparing the output of agricultural industry and the gross value added to the annual working unit. We can get more realistic picture on the labour productivity in the Hungarian agriculture if we compare the labour productivity of Hungarian agriculture with the EU and other countries' achievements. Beside the European Union, the reference countries were the three Visegrad countries. The calculated values are expressed in euros. Since the Hungarian Statistical Office declared the data generally in Hungarian forint, we calculated the exchange rate into euro at a rate of 310 Hungarian forint/euro for year 2016.

Results

The value of agricultural industry output in Hungary totalled 8.31 billion euro in 2016. Hungary represented 2.06% of the value of EU-28 agricultural production. In the same year, the gross added value (at basic price) of agriculture in Hungary was 3.45 billion euro. Hungary accounted for 2,08% of value of gross added value of agriculture in the total EU. However, the 434.3 thousand annual work units of agriculture in Hungary represented the 4,66% of the AWU of agriculture of EU-28 in 2016. At first glance, it seems that the labour force in Hungary is less efficient than the labour force in the EU-28.

As to changes labour productivity in agriculture, all Visegrad countries showed an increase after EU accession, though a considerable lag compared to the EU-15 (Csaki and Jambor 2013). The gross labour productivity gap between Hungary and the EU is significant. In 2016, the output of agricultural industry/AWU was 19,132 euro in Hungary and 43,365 euro was in the EU. The gross labour productivity was 2,26 times higher in the European Union than in Hungary. However, the gross labour productivity of Czech Republic (with 47,062 euro/AWU) and Slovakia (with 49,096 euro/AWU) is above not only the Hungarian level, but even the EU average level. The Poland' gross labour productivity is below the Hungarian level with 13,373 euro/AWU.

In the case of net labour productivity of agriculture the situation is similar. The gross value added/AWU was 7,944 euro in Hungary and 17,823 euro in the EU. In 2016, the net labour productivity was 2,24 times higher in the European Union than in Hungary. In this respect, the advantages of other two Visegrád countries are also significant. The net labour productivity value was 16,153 euro/AWU in Czech Republic and 12,854 euro/AWU in Slovakia in 2016. Poland's disadvantage was also significant, value of gross added value/AWU was only 5,125 euro/AWU. (Table 3)

Table 3. Labour Productivity in Agriculture, in the year 2016

	Output of Agricultural Industry (million euro)	Gross Value Added (at basic price) (million euro)	AWU (thousand)	Output of Agricultural Industry / AWU (euro)	Gross Value Added (at basic price) (million euro) / AWU (thousand)
Hungary	8309	3450	434,3	19132	7944
Czech Republic	4918	1688	104,5	47062	16153
Poland	22411	8588	1675,8	13373	5125
Slovakia	2391	626	48,7	49096	12854
EU-28 countries	403949	166023	9315	43365	17823
Hungary % of EU-28 countries	2,06	2,08	4,66	44,12	44,57

Note: The output of agricultural industry consists of the output of agricultural products, agricultural services and of the goods and services produced in inseparable non-agricultural secondary activities. (European Commission 2017)

Source: European Commission Eurostat database and Knoema database 2017

Discussion

The input productivity influences the cost, profitability and competitiveness of products. The advantage of the cheap labour force in agriculture significantly decreased due to low labour productivity in Hungary. This is one of the reason why only a few Hungarian agri-food products has been competitive on the domestic and foreign market. The level of labour productivity influences the entrepreneurial incomes as well. The production factors of the agriculture are recompensated from gross value added. The lower the gross value added the lower the farmers' income as a residual.

Among the V4 countries Hungary had the biggest amount of money given to the employers in order to support the creation of job opportunities (Vincúrová 2017). Despite the great amount of money to support the job creation the labour productivity level is the lowest in the region and it has been stagnating since the end of the 2008 crisis.

Back to our case, the question is how to increase the labour productivity in Hungary's agriculture. Nowadays, the modern economies are basically driven by knowledge and innovation. The agriculture also become a knowledge intensive sector. The qualified human capital is a very important factor of high agricultural productivity. In order to narrow the agricultural productivity gap between Hungary and the EU we have to focus on education and increasing of qualification level. The higher the level of qualification and practical experience the more effective the application of innovative solutions, technologies (Baptista 2012). Basic task is to improve the education level in the rural areas with special emphasis on college and university education with agricultural profile. The role of human capital is outstanding in producing high value added food products.

Producing high value added products could contribute to enhance of competitiveness of our agri-food products on domestic and foreign markets (Popescu 2009). This is very important because the positive balance of the foreign trade of the agriculture and food industry of Hungary has an important role in the stabilisation of the balance of the foreign trade of the Hungarian economy. In addition to, the European Union provides a lot of measures to help producers build on the high quality reputation of European products to sustain competitiveness and profitability.

Aging agricultural labour force is a trend in Hungary. Due to low wages, low profit the agricultural job is not attractive for the young. However, if we want to diminish the labour productivity lag the rejuvenation of population in agriculture is needed. Support of the EU for young farmers in agriculture promotes generational change in the labour force. This measure is binding on the Member States to which the they can spend up to 2% of their annual financial framework. Hungary has allocated only 0.8 percent of its annual financial envelope to this support address due to the relatively low number of applicants in 2016.

Farmers' technical endowment is a indispensable to increase the productivity. The agricultural producers are financed from various sources beyond their own capital. Despite the various sources the farmers are facing financing problems. The Hungarian farmers can hardly get credit due to high risk and low profitability (Fogarasi et al. 2014). So that, the agriculture of Hungary is under-financed. Besides the EU sources, the government also should help the farmers to get credit. Of course, increasing of the agricultural labour productivity in Hungary is not the only task. New jobs must be created as well.

Conclusion

One of the main objective of the Common Agricultural Policy of the European Union is to increase the agricultural productivity. The labour productivity influences the cost, profitability and competitiveness of products. On average, the labour productivity of agriculture is 2,25 times higher is in the EU compared to Hungary on the basis of examination of partial indicators. Despite the cheap labour force the comparative advantage of Hungary's agriculture does not prevail due to low labour productivity. The problem is that the labour productivity in agriculture is significantly higher in the two other countries in the region. The gross labour productivity of Czech Republic and Slovakia is much more higher than the Hungarian level, but higher even than the EU average level. The aim of the article was evaluate the agricultural labour productivity of Hungary As a conclusion we can state that the Hungarian agriculture has serious labour efficiency problems.

There are several opportunities to increase the agricultural labour productivity such as increase of labour force qualification, move toward producing higher value added agri-food products, rejuvenation of population in agriculture and improve the conditions of financing of agriculture. However, the task is not only to improve the labour productivity of agriculture, but to create new jobs as well, regardless productivity. The production function of agriculture is to supply foods with reasonable prices, high quality and safety. The rural function of agriculture is to maintain the agricultural activities in rural areas where there are only few other possibilities of employment. These agricultural activities can contribute to the economic and social viability of rural areas and thus to balanced territorial development.

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INNOVATION ACTIVITY AND CROSS-BORDER COOPERATION OF MICRO, SMALL AND MEDIUM SIZED ENTERPRISES AS EXEMPLIFIED BY THE POMERANIAN EUROREGION

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Abstract: The subject of research analysed in this paper involves issues related to the innovation activity and intensity of cross-border cooperation between micro, small and medium sized enterprises operating in the Pomeranian Euroregion (Mecklenburg-Vorpommern (Germany) and Zachodniopomorskie Province (Poland)). The aim of this paper is to present the research results related to cooperation and implementation of innovations by the Polish and German micro, small and medium-sized enterprises offering tourist services in the Pomeranian Euroregion and to provide interpretation of the results. In the paper, the following research hypothesis has been formulated: by inspiring entrepreneurs to develop international cooperation, the innovation activities in companies become intensified. The main research method applied in the course of analysing the subject of research is multiple correspondence analysis.

Keywords: innovation, cross-border cooperation, region, travel agency, multiple correspondence analysis

Introduction

The subject of research analysed in this paper involves issues related to the innovation of micro, small and medium sized enterprises in the context of cross-border cooperation. The region under analysis is Pomerania Euroregion¹ (Mecklenburg-Vorpommern and Zachodniopomorskie Province). The analysis covers business entities operating in the tourist sector and offering accommodation. The aim of this paper is to present the results of research related to cooperation and implementation of innovations by the Polish and German micro, small and medium sized enterprises offering tourist services in Pomerania Euroregion and to provide interpretation of the results.

Identification and Systematization of Basic Concepts within the Scope of Research.

Literature Review

Innovation can be understood traditionally, as per the theory by Schumpeter (2012, p. 66), who recognized innovation as a radical change covering five typical cases: introduction of a new product, discovery of a new market, discovery of a new source of supply, introduction of a new production method, and introduction of a new mode of manufacturing process organization. At present, the meaning of innovation is slightly broader. For instance, Drucker (1992, p. 44) emphasizes the importance of innovation as a change taking into account its goal and result. Rogers (1983, p. 11) perceived innovation in a different manner. According to his definition innovation is an idea, practice or object perceived as new by an individual. And it is irrelevant whether these ideas are new „in objective terms”. All that matters is subjective perception of innovation by a particular enterprise. Similar concept as for the perception of innovation was promoted by Kotler (1994, p. 322).

The above mentioned definitions in their modern form assume that the main determinant of innovation should involve the aspect of novelty or significant improvement of elements, objects, as well as matter, and changes in enterprise which result in pioneering or significantly improved solution, „adopted” from other entities, regarding the process, marketing or organizational method.

The efficiency of actions aiming at increasing the level and scope of innovation in enterprises generates better results when, there is cooperation between enterprises, regions and countries. Therefore, Euroregions established in the unifying Europe have become an important element in multilateral cross-border cooperation within at least two, most frequently neighbouring countries (Wolska, Kwarcińska, Warszycki, 2016, p. iii).

¹ Pomerania Euroregion is a cross-border area covering the German and Polish regions and from February 1998 also the Swedish provinces.

Until recently, the issues related to innovations and cross-border cooperation have been analysed separately. However, as a result of growing globalisation and intensified international cooperation as well as significant technological changes, both phenomena are more frequently perceived as closely related (Onetti and Others 2012, pp. 337-368; Zucchella, Siano 2014, pp. 21-41). Thus, the legitimacy of studies on mutual relations between cross-border cooperation and innovations in enterprises. This raises the question – whether more innovative enterprises are more willing to develop cross-border cooperation/cooperation with foreign stakeholders?

We can assume that in modern economy the innovative processes are largely dependent on processes related to cross-border cooperation. However, we need to indicate that innovation activities and cross-border cooperation belong to the area with many research gaps. One of such gaps is the fact that, from the perspective of cross-border cooperation, the issues related to innovation activities refer mainly to production companies (e.g. Castellani, Zanfei 2006), in particular multinational companies operating globally (Coe, Hess 2005, pp. 449-473), and to a much smaller extent, to service and retail companies (Knight, Cavusgil 1996, pp. 11-26). Therefore, all studies referring to dilemmas over cross-border cooperation and explorations related to the innovation implementation level ensured by service companies, including those offering tourist services, are absolutely necessary.

Some researchers believe that international companies tend to use their innovative abilities on several markets (e.g. Pla-Barber, Alegre 2007, pp. 275-293; Kafouros and Others 2008, pp. 63-74; Cassiman, Golovko 2011, pp. 56-75). Others, in turn, emphasize that significant number of enterprises are not on a proper level of internationalization to "draw from the benefits of innovation" in an effective manner. Meanwhile, particular markets differ in culture, habits, needs of customers, suppliers, etc. This in turn requires more international and certainly more innovative approach to operate on international markets, generate profits and stimulate development (Kafouros and Others 2008, pp. 63-74, Kylläheiko and Others 2011, pp. 508-520). Researchers in this field express also opinions providing that the relation between innovation and internationalization is almost negligible and even negative (Hitt and Others 1997, pp. 767-798). Such approach seems to be rather isolated since there are more attitudes based on conducted research (adopted also by the authors of this study) providing that there are strong relations between innovation and internationalization of companies.

Adopted Research Method

Correspondence analysis included in the group of multiple methods for analysing the correlation² is a tool which enables analysing the coexistence of two or more nominal characteristics defining the entities (e.g. respondents). When we analyse numerous characteristics, multiple analysis is applied using one of the four methods for recording the observed number of characteristics categories: complex indicator matrix, Burt matrix, multiple contingency analysis, and combined contingency table. In the paper the second method for data record was applied, i.e. Burt matrix, which is most frequently used as grounds for correspondence analysis (Greenacre 1994, p. 141). Then, the size of actual co-occurrence area (K) was determined under the formula:

$$K = \sum_{q=1}^Q (J_q - 1) \quad (1)$$

where: J_q – number of variable categories q ($q = 1, 2, \dots, Q$), Q – number of variables.

Since the result of multiple correspondence analysis is presented graphically usually in two- or three-dimensional space, first we analysed to what extent eigenvalues (λ_k) of lower-dimensional space determine the total inertia ($\lambda = \sum_{k=1}^K \lambda_k$). To this end, Greenacre's criterion was applied, stating that for the purpose of research significant are eigenvalues (λ_k) for which the following inequality is satisfied:

$$\lambda_k > \frac{1}{Q} \quad (2)$$

where: Q – number of variables.

² Correspondence analysis is widely discussed, inter alia, in the following works: (Gatnar, Walesiak 2004), (Stanimir 2005).

Then, the quality of representation was raised by modifying eigenvalues as per Greenacre's suggestion (1994, p. 156) under the following formula:

$$\tilde{\lambda}_k = \left(\frac{Q}{Q-1} \right)^2 \cdot \left(\sqrt{\lambda_k} - \frac{1}{Q} \right)^2 \quad (3)$$

where: λ_k – k -th eigenvalue ($k = 1, 2, \dots, K$), Q – number of variables.

Statistical Material

As it was indicated at the beginning of this paper, the statistical data related to innovation and cross-border cooperation was derived from questionnaire studies in the form of a set of non-identifiable unit data related to companies situated in Zachodniopomorskie Province and Mecklenburg-Vorpommern. In order to analyse the relations between innovation activity and degree of cross-border cooperation between micro, small and medium sized enterprises operating in Pomerania Euroregion several questions were formulated, reflecting innovation activity (AI) and cross-border cooperation (WT). Moreover, the studies included variables related to company operations (number of employees LP, turnover OB, number of years on the market LATA and country of origin N and P). The categories of the above mentioned variables received the following symbols:

1. Did the company develop new or significantly improved offers for a new group of customers (e.g. out-of-season offers, accessible tourism): AI5_1 – yes, AI 5_5 – no.
2. Did the company introduce new or significantly improved means of marketing communication, including market research and advertising: AI 3_1 – yes, AI 3_5 – no.
3. Did the company introduce changes in the form/shape/presentation/image of fittings or building: AI 4_1 - yes, AI 4_5 – no.
4. Did the company introduce organizational facilities for more effective customer management and improvements in customer service quality: AI 7_1 - yes, AI 7_5 – no.
5. Did the company purchase new equipment or software to improve the processes in the company (e.g. regarding customer management, room service, catering): AI 1_1 - yes, AI 1_5 – no.
6. Does the company employ workers from Germany (from Poland): WT 1_1 – yes, WT 1_2 – no,
7. Does the company have customer/consumer data base in Germany (Poland): WT 2_1 – yes, WT 2_2 – no,
8. Does the company have business partners in Germany (Poland): WT 3_1 – yes, WT 3_2 – no,
9. Does the company participate together with the companies from Germany (Poland) in joint initiatives/associations: WT 4_1 – yes, WT 4_2 – no,
10. Does the company support and participate in initiatives reducing language barriers and cultural differences between Poland and Germany, e.g. through trainings for employees: WT 5_1 – yes, WT 5_2 – no,
11. Number of employees in the company: LP 1 – below 10 people, LP 2 – from 10 people to 49 in total, LP 3 – 50 people and more.
12. Company turnover: OB. 1 – below 2 million EUR; OB. 2 – 2 million EUR and more.
13. Number of years of the company operations on the market: LATA 1 – up to 10 years, LATA 2 – 10 years and more.
14. Country where the company has their registered office: N – Germany, PL – Poland.

Research Findings

The correspondence analysis was conducted under the Burt matrix sized 29×29 created from 14 variables. The size of real co-occurrence area for answers to the analysed questions amounts to 15. It was later verified to what extent eigenvalues of lower-dimension area determine the total inertia ($\lambda = 1.0714$). To this end, Greenacre's criterion was applied stating that for the purpose of research significant are the main inertiae higher than $\frac{1}{Q} = \frac{1}{14} = 0.0714$. Table 2 shows that these are inertiae for

K taking the values of at most 5³. For such volumes the values of measure τ_k ⁴ were analysed and it turned out that the degree of inertia in two-dimensional space totals 22.30%, and in three-dimensional space 36.20%.

To improve the quality of representation in three-dimensional space, the modification of eigenvalues as per Greenacre's suggestion (equation 3) was performed. After the modification the first three eigenvalues constitute 77.14% of modified total inertia. Therefore, taking into account the first three dimensions provides information on over 77% of total inertiae. For that reason, the graphic presentation of the results of correspondence analysis in three-dimensional space was performed taking into account the modification of eigenvalues⁵.

Table 1. Singular values and eigenvalue with the degree of total inertia in the primary and modified version related to the Polish and German enterprises operating in the Pomerania Euroregion in 2016

	Singular values γ_k	Eigenvalues λ_k	λ_k / λ	τ_k	$\tilde{\lambda}_k$	$\tilde{\lambda}_k / \tilde{\lambda}$	$\tilde{\tau}_k$
1	0.4888	0.2389	22.2965	22.2965	0.2020	40.3034	40.3034
2	0.3860	0.1490	13.9049	36.2013	0.1148	22.8957	63.1992
3	0.3169	0.1004	9.3722	45.5736	0.0699	13.9419	77.1410
4	0.3060	0.0936	8.7406	54.3141	0.0638	12.7350	89.8760
5	0.2806	0.0787	7.3484	61.6625	0.0507	10.1240	100.0000
6	0.2647	0.0700	6.5380	68.2005	$\tilde{\lambda}_k = 0,5012$		

Source: own calculations based on the results of questionnaire studies

Due to a large number of analysed variables and their options, it is very difficult to interpret the results obtained in three-dimensional space (Bąk 2013, p. 135). Therefore, in order to provide more unambiguous interpretation of the results, Ward's method⁶ was applied allowing the identification of relations between the options of variables. Figure 1 presents the clustering of categories into classes with horizontal line marking the stage where clustering was disrupted. As a result, the following three classes were obtained:

Class I (OB_2, LP_3, WT5_2, WT4_2, WT3_2, WT2_2): encompasses medium-sized Polish and German enterprises which employ, on an annual average, more than 50 people and their turnover exceeds 2 million EUR. These business entities fail to cooperate actively with their foreign partners, namely the German entities with the Polish ones, and vice versa.

Class II (LP2, LATA 2, AI1_1, AI7_1, AI3_1, AI5_1, OB1, WT1_1, AI4_1, PL): encompasses small enterprises which operate on the Polish market for less than 10 years and employ, on an annual average, from 10 to 49 people, including workers from Germany, and their turnover does not exceed 2 million EUR. Business entities falling into this class claim that they are actively innovative as for developing new or significantly improved offers for customers, new or improved means of communication, organizational facilities and purchase of equipment or software to improve processes within the company.

Class III (LP1, LATA 1, AI1_2, AI7_2, AI3_2, AI5_2, WT5_1, WT4_1, WT3_1, WT2_1, WT1_2, AI4_2, N): encompasses micro enterprises, operating in Germany for over 10 years, which employ workers from Poland and actively cooperate with the Polish business partners (joint initiatives, trainings of employees) and maintain data base of customers/consumers from Poland. These companies fail to conduct any innovation activities.

³ Table 1 does not include inertiae for $k \geq 6$ since they were not higher than 0.0714.

⁴ The measure determines the share of inertia of selected dimension (λ_k) in the total inertia (λ).

⁵ To determine the area of representation, a diagram of eigenvalues was performed using the „elbow” criterion, and it was found that the space for presenting co-occurrence of variables options should be three-dimensional (Bąk 2013, p. 137-138).

⁶ Ward's method is one of the agglomerative clustering method. It is applied in empirical studies related to the classification of both objects and their characteristics (Balicki 2009, p. 276-277).

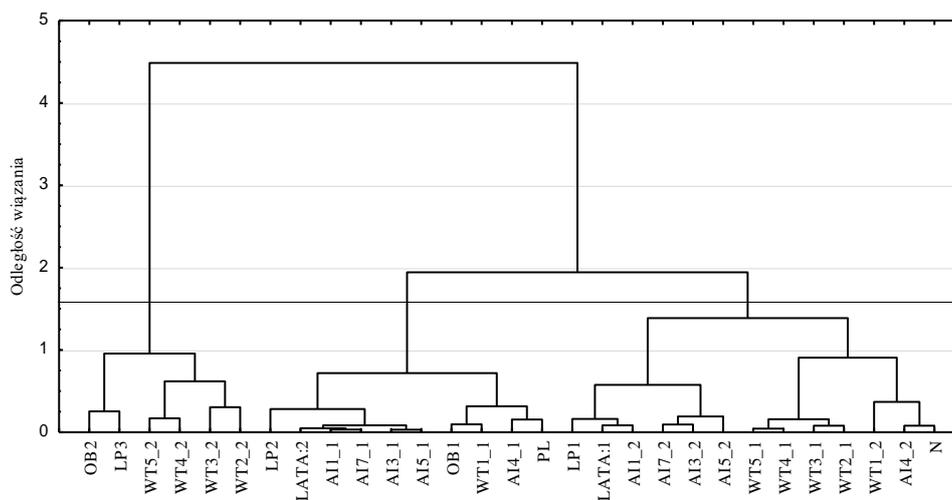


Figure 1. Diagram of hierarchical classification of variables categories conducted under Ward's method presenting clustering the categories into classes of the Polish and German enterprises operating within the Pomerania Euroregion in 2016

Source: own study based on the results of questionnaire studies

Conclusion

The evaluation conducted by analysis led to surprising results. For it turned out (generally speaking) that the tested entrepreneurs operating in the Pomerania Euroregion fail to seek more active cooperation and attach little significance to innovation. However, from the perspective of the size of enterprises, some differences can be noticed. The cooperation between both countries and the implementation of innovations can be observed among small and micro enterprises, whereas medium sized enterprises on both sides of the border are not particularly interested. The situation may result from the following reasons.

Firstly, enterprises operating in Germany (first of all, from the time of Germany reunification) had more financial resources and experienced stable regulatory policy supporting their activity. These factors allowed them to implement innovations on a regular basis. Moreover, new or significantly improved offers for new groups of customers were introduced in particular by medium sized enterprises in evolutionary, not revolutionary terms. Numerous examples and solutions in this area come from enterprises situated for dozens of years in the western part of Germany. As a result, the tested entities marginalized the issues related to the implementation of innovations as per the scope examined by the authors of this paper. Most probably, the issues were too obvious for the tested entities. Moreover, the issue becomes more complicated due to the general understanding of innovation as the implementation of totally new and unique solutions, which is very difficult to provide in the service sector compared to the production sector. The issue of international cooperation, in particular its limited scope referring to companies operating in Germany may result, inter alia, from cultural and financial differences, infrastructural and institutional solutions, and still existing stereotypes in the two nations, which discourage cooperation. Furthermore, recent changes in Poland, implemented since 2015, fail to encourage cross-border cooperation. The only exception involves micro companies which have not operated on the tested market for a long time. However, the cooperation with these companies includes mainly employing workers from Poland and conducting trainings. These companies are mainly guided by lower labour costs regarding the workers from Poland.

Secondly, the companies operating in Poland are (generally speaking) in a much worse economic situation. Moreover, too quickly changing political environment and changes in governance fail to contribute to developing long-term strategy. Insufficient financial resources, common in the majority of particularly small and micro enterprises, inhibited the implementation of innovations. Probably that is the reason why most of them (more than in Germany) define any changes and improvement as innovative to improve their company image. The tendency to establish regional cooperation results

from actions aiming at reducing the development gap and achieving better economic results and better competitive edge. The cooperation with German companies and wealthy German consumers provide such possibility.

In conclusion, the research conducted in Zachodniopomorskie Province and Mecklenburg-Vorpommern proves that the intensification of actions related to the cooperation between companies operating within Mecklenburg-Vorpommern and Zachodniopomorskie Province will not occur, if it is not based on the main three areas: institutional, political and social. However, the changes occurring in one area are not independent of changes in other areas. Therefore, in order to obtain the scheduled results, both short- and long-term, the activities should be based on the implementation of facilities in all areas at the same time. The conducted research also proves that there are significant differences between the standing of micro and small enterprises situated over a small area and focused on relations with foreign business partners and the level of some institutional solutions. Consequently, we can observe marginal character of many border areas, which is measured not so much by physical distance as by social and economic distances; they, in turn, reflect the level of disintegration in the social and economic area of both examined countries.

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CRISIS MANAGEMENT IN THE NATIONAL SECURITY SYSTEM

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Abstract: Preventing any threats, both natural and those caused by human activity, is the responsibility of public administration and various forces (such as the fire services, army, border guards, police etc.) which represent the support for the state in the situation of security threats. Nowadays, with the plethora of threats, the responsibilities of the state considered as an organization include the planning, organization and responding to threats and preventing them. This paper attempts to draw the attention of the reader to the problems connected with crisis management which are critical to national security. The aim of the paper is to present the role of crisis management in creating the system of national security. The paper also attempts to identify such concepts as national security, crisis and crisis situations. The role of crisis situations in the system of crisis management was also determined, while the system of crisis management was characterized. The study used an analytical and synthetic method combined with the analysis of the related literature.

Keywords: crisis management, national security, public administration, crisis, crisis situation

Introduction

The basis for ensuring sovereignty and independence of the country is efficiency of its structures, both governmental and in local governments, which are responsible for ensuring security in all areas of state activities, directly affecting its existence as well as well-being of the citizens. Therefore, it seems justified to link security in the country to the national security system.

Nowadays, with the development of modern civilization and society, and inequalities leading to social and economic disparities between individual states, the number of threats is gradually increasing. Consequently, numerous contradictions occur between states, followed by tensions. For these reasons, states are facing more and more challenges that require development of strategies that have to ensure that the threats are dealt with. This also forces the states to monitor and prevent any threats which put at risk the basis of the state's being and wellness of its citizens.

One of the consequences of the development of industrial civilization is devastation of the natural environment which has various effects on ecological disasters caused by e.g. technological failures. Obviously, various natural disasters also remain to be dangerous. Therefore, both natural disasters and those caused by human activity have to be prevented through organized activity of the entire society in the state and individual local communities present within this society and through international cooperation. The responsibility for organization of the entire society and individual communities lies with central and local public administration, which should be effectively supported by the respective governmental and local government structures.

The above threats were indicated by e.g. Ulrich Beck in his book "Risk Society" (Beck, 2002, p. 33), who emphasized various dangers resulting from the development of modern civilization and the respective socio-economic transformations caused by e.g. negative consequences of progressing globalization. Over the ages, humans have never been free of threats while taking actions to ensure basic means of existence often involved various dangers and risky situations. People have never lived in so modified and often degraded natural environment as they do today, caused by production activities. Furthermore, they have never coexisted in such a complex and antagonized societies created through social development stimulated by quickly progressing development of modern civilization. Therefore, people are facing more and more challenges, which always involves some risks and the related threats (Bsoul – Kopowska, 2016, pp. 96-97).

The area connected with national security relates mainly to adjustment of both state and self-governmental structures to prevent any threats to the state and prepare society for relevant behaviours in situation where external threats emerge, especially those of political and military character.

However, it is worth emphasizing that management of national security does not only mean preparation of state structures and citizens for functioning in the situation of external political or military threats or resisting military aggression. Nowadays, this concept also concerns actions taken by public administration to deal with natural disasters or technological failures, consisting in making right decisions and coordination of forces and resources allocated for responding to crises. Therefore, crisis management is a very important component of the system of national security management.

The aim of the paper is to indicate the idea of crisis management in activities taken by the state to ensure peace, harmony and sense of stability and security to all citizens and to emphasize its role in creation of the system of national security.

Theoretical basics of crisis management

With changes occurring in the area of global security which have been observed in recent decades, the understanding of the concept of security has substantially evolved. With the specific character of contemporary threats, society is facing new problems, not only those resulting from natural disasters but also from new technological threats and various manifestations of terror. Therefore, the situation requires comprehensive and integrated tools for *crisis management*, which allow for using military and civil components at various levels of response.

Scientific research and development studies concerning the area of security and defence are of strategic character and represent an interdisciplinary domain of science. The research methodology adopted in this paper is comparative analysis of normative acts defining functioning of crisis management. With regard to national legislation, the study analysed acts, ordinances and guidelines concerning the problems of development, maintenance and tasks of crisis management systems. The tasks concerning development and coordination of plans for individual levels of public administration responsible for civil protection were also discussed. The paper also attempted to identify such concepts as national security, crisis and crisis situations.

The literature devoted to the problems of management during crisis situations presents various attempts to define the phenomenon termed crisis. Crisis has been considered as a relatively unexpected and strong phenomenon, which changes the status of things and processes developing in unexpected and undesirable directions and, consequently, threatening previous transformations not only in states and societies but also economic and political situations.

It is generally accepted that crisis situation is generated through presence of specific threatening conditions and emergencies. Its culmination is occurrence of the chances for materialization of the threats if humans fail to prevent intensification of individual elements which determine the threats. The beginning of a crisis situation occurs at the moment of manifestations that indicate fast appearance of real threats which are usually perceptible in a society.

According to B. Zdrojewski, "a crisis situation means a state where accumulating internal and external tensions (between systems) lead to destabilization of the system functioning and taking specific corrective measures that might help defuse the crisis situation or, if the actions taken are ineffective, turn into a crisis" (Zdrojewski, 2014, pp. 53-55).

To many experts who have explored the problems of crisis management, the above threats are inherent in the national security system and point to the activities aimed at reducing the likelihood of a specific crisis situation and, if it occurs, taking control and restoring and maintaining the previous state. They also often demonstrate that these activities are purposive and often taken in risky conditions.

Therefore, crisis management consists in general in prevention of possible threats, both potential and current, preparation for their occurrence or responding to crisis situations and maintaining or restoring the previous state.

Furthermore, the aim of the crisis management is to strive for minimization of potential threats and effective activities in case of emergencies, with their effectiveness largely depending on the skills, competencies and authority of both the individuals who manage the activities and those taking part in rescue activities.

Since 2004, when Poland became the European Union, the regulations concerning crisis management have been adapted to the requirements used in this community (Bsoul – Kopowska M. Karczewska A, 2016, pp. 261-265).

Crisis management: integral part of national security

Overcoming crisis situation that emerge in the macro scale have to be faced by public administration entity at the state and voivodeship level due to their competencies and means they are allowed to use. Therefore, they are responsible not only for the decision-making but also for

supervision of activities and choice of resources and means that can be involved in a particular case of the crisis management. Therefore, crisis management at this level of activity represents an important component in the system of managing national security.

Since the quickly progressing development of modern civilization has an ambivalent character, it contributes to the increase in the standard of living of society, but on the other hand, it leads to various threats to security. The threats can be more or less dangerous and easier or harder to be overcome. Smaller or less dangerous threats can be successfully dealt with by various organizations that support the state's activity at a local level e.g. in terms of counteracting smaller natural disasters and problems of social policy.

However, in the case of more serious threats, with bigger scale and territory involved, it is necessary to use the forces and resources owned by various state's structures and requiring specialized organizational entities prepared for such activities. Consequently, the need arises for the development of the concept of crisis management. Crisis management is the responsibility of relevant state administration units, supported by local government administration divisions which are required by law to ensure public security. Their obligations also include:

- ensuring safety to all citizens
- guaranteeing protection of the local infrastructure and personal property by ensuring fire service and anti-flood protection (Sienkiewicz-Małyjurek, Krynojewski, 2010, p. 9).

Nowadays, there is no more dynamic and complex phenomenon in the area of national security as management in crisis situations. This is caused by the fact that situations that expose security at risk are often difficult to diagnose while prediction of the possible effects is difficult, especially because they occur suddenly and develop rapidly and spontaneously. For this reason, fast decisions are needed concerning the methods of their overcoming. Therefore, they lead to situations full of tensions and distress. Consequently, it seems obvious that they are termed *crisis situations*.

Nowadays, with various contradictions that antagonize individual states and, with both explicit and implicit conflicts, the unconventional methods to conduct aggressive activities have emerged both in Europe and in various parts of the world. One example is hybrid wars and wide-scale terrorist activities. Therefore, each country and its individual bodies are obliged to take various urgent counteracting measures (Kitler, 2010, p. 5). This requires efficient functioning of all state agendas which have to care for ensuring readiness for counteracting potential threats.

The effectiveness of countermeasures is undoubtedly much more effective if citizens cooperate closely with government branches. For this reason, it is essential to prepare society to cooperate with both governmental and local-government institutions whose aim is to ensure security for the state and its citizens (Mołek, Stec, Marciniak, 2000, p. 47).

Therefore, adequate preparation of state structures requires, according to the provisions of the Strategy of State Security, development of knowledge about new forms of "... threats, with particular focus on asymmetric threats and the threats connected with the development of civilizations, political and social clashes, and needs searching for new solutions in order to ensure more efficient performance of the tasks of crisis management and civil protection, including civil defence" (Strategia Bezpieczeństwa Narodowego Rzeczypospolitej Polskiej, 2007, s. 28). This is connected with the necessity to e.g. develop the management systems that require cooperation between public administration entities of any levels and the entities from outside of this area. Therefore, system functioning needs to have strong legal foundations, with one of them being the Crisis Management Act, which represents a significant step toward implementation of the systematic solutions concerning crisis management (Strategia Bezpieczeństwa Narodowego Rzeczypospolitej Polskiej, 2007, p. 8).

The critical problems connected with crisis management were standardized in the *Crisis Management Act*. This act defines *crisis management* as a function of multifaceted national security management. Its aim is to create conditions necessary for *crisis management* in the system of current national security (<http://isap.sejm.gov.pl/DetailsServlet?id=WDU20070890590>).

The basic goal of the *Crisis Management Act* is to develop the structure of the national *Crisis Management System*. According to its provision, the President and the Council of Ministers are the executive and governing bodies of the Republic of Poland. Furthermore, the opinion-giving and advisory support concerning initiation and coordination of activities taken in crises is provided by the Government Crisis Management Team working at the Council of Minister, subordinated to the Prime Minister. Furthermore, the Government Centre for Security was established to coordinate the initiatives of the Council of Ministers and the Crisis Management Team.

Furthermore, crisis management teams are also appointed at various levels of government and local administration to support state and local government officials responsible for performing tasks within crisis management. Furthermore, crisis management centres are established as executive bodies for these teams. The act imposes various tasks on these structures depending on the level, as presented further in this chapter.

At the level of the Ministry of Defence, the Crisis Management Team and the Crisis Management Centre were instituted. Both institutions are of permanent character, with their tasks including monitoring of current crisis threats in Poland.

Management of crisis situations is included in competencies of various institutions and both state and local government organs. The highest bodies at the state level responsible for crisis management are the President and the Council of Ministers of the Republic of Poland. Furthermore, at the level of the government, the crisis situations are dealt with by the team for crisis situations, coordinated by the Minister of Interior. As an auxiliary body, the team is called by the President of the Council of Ministers. In situations of military threats, the team is managed by the Minister of Defence.

The responsibility of the Government Crisis Management Team is to prevent natural disasters and prevent its effects. There are permanent or interim bodies of crisis management at all levels of state and local administration.

Conclusion

Current solutions concerning crisis management indicate that the response of crisis management to non-military threats is relatively effective. This concerns in particular responding to natural disasters. Crisis management also involves tasks performed for the Minister of Defence when the state has to respond to political and military crises. This also concerns activities implemented within the European Union and NATO and the activities to coordinate participation of forces and resources of the national defence in supporting civil structure during responding to non-military crises.

It is worth emphasizing that the argumentation for the draft act indicated that it was supposed to provide basis for creation of the system aimed to ensure effective measures taken in case of threats that need taking non-standard actions by public administration bodies and the necessity to support these activities by Armed Forces of the Republic of Poland. This relates first and foremost to situations where there are no reasons for declaring one of the states of emergency, such as e.g. state of national calamity or martial law.

However, before the Crisis Management Act was passed, the legal order was based on the methods used for functioning of bodies of public administration, services, inspection and guards in states of emergency. Concrete solutions concerning functioning of these entities in situation of threats were missing. However, this required implementation of special mechanisms to ensure both effective monitoring of threats and taking actions to neutralize them or substantially limit their effects.

In light of the above, the Crisis Management Act supplemented the already existing system of national security management through implementation of the principles that allow for preparation of the state structures to take adequate measures in non-regulated states of emergency (Mołek, Stec, Marciniak, 2000, p. 54).

In conclusion, the aims of the system of national security management and crisis management seem to be consistent. The precondition for proper functioning in both cases is to prepare adequate structures for efficient activity, with this preparation involving planning, organization and implementation of initiatives aimed to ensure performance of tasks concerning management of national security.

The state, as an entirety and individual citizens, can expect that national security management is efficient, continuous, resistant to various disturbances and constantly improved. As part of these activities, crisis management should ensure adequate assessment of potential threats, create conditions for fast responding to them, minimize the effects of the threats and ensure capabilities to restore what was disturbed or destroyed by crisis situations.

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FUNCTIONING OF SOCIAL NETWORKS IN ENTERPRISES – ANALYSIS OF BENEFITS FOR ENTERPRISES AND EMPLOYEES

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Abstract: The paper herein constitutes a theoretical discussion on the social networks of an organization and an empirical presentation of the functioning of social networks in enterprises. The principal aim is the search for answers to the following research questions: To what extent do the social networks operate in enterprises? What benefits are there for employees and enterprises from the functioning of social networks? ? In the search for answers to these questions, research was conducted in 148 enterprises. The survey method was applied with the technique of an opinion poll. As a result of the research, it was stated that thanks to participation in networks, the employees gain access to important resources such as knowledge, information, safety, prestige, new skills and competences. In turn, thanks to networks, enterprises create new products, innovations, investments, while also increase their resources and develop research and development activities

Keywords: social networks, social capital, employees, enterprise

Introduction

In contemporary enterprises the potential for development lies in the interpersonal cooperation within the employee team and organization as a whole. Members of the organization constitute the basis for building social capital. Of the elements of social capital that are most frequently described, namely the norms, resources, social networks are enumerated amongst the most significant (Bylok 2017). M. Granovetter (1978) defined a social network as an arrangement of nodes or actors (both people and the organization itself) of connected social relations or a special type of nodes. Participation in this may be the source of benefits for employees as it expands the access to knowledge, the skills of other network members, while also ensuring the privileged of emotional support and providing the feeling of social identification. Likewise, the enterprise gains specific benefits, among others, the activity of employees increases, it strengthens organizational culture, it facilitates effective operations on the market, it enables the launching of innovations, etc. The subject matter of research presented in the herein paper has been acknowledged to be social networks. The main aim of the herein paper is the search for answers to the following research questions: In what scope do social networks function in enterprises? What are the benefits for employees and enterprises that arise from the functioning of social networks?

Social networks in an enterprise - theoretical background

Social networks are analysed in terms of various contexts. One of the most important ones is the resource approach. P. Bourdieu (1986, 243) noted the importance of social networks in creating the resources of an organization. He writes that the resources of an organization are associated with the possession of constant social networks that are more or less institutionalized relations, mutual familiarity or cognition. In turn, J. Nahapiet and S. Ghoshal (1988, 243) perceive the significance of networks in the creation and transfer of the resources of the organization to the particular members. They are of the opinion that the sum of the actual and potential resources within the organization is available by means of the network of ties. Participation in the network facilitates reaping various benefits on the part of the individuals, albeit only in the situation whereby they are constant and geared towards mutual cooperation.

Social networks in an organization may have both external and internal dimensions. In the former, this refers to the network of relations of an organization with its environment, namely with its clients, suppliers, competitors and other entities. The external social networks are sometimes created by the managers of various enterprises. Ch. J. Collins and K.D. Clark (2003) in analysing the strategic practices of human resources claimed that the strength and range of the external connections between the managers of the highest levels of high technology firms are important indicators of sales growth in firms.

In the case of internal networks, this refers to social relations which connect employees and managers that have an impact on the creation of the vibe of cooperation and facilitate the achievement of common aims of the employees and the enterprise itself. When an individual is connected with the “appropriate” relations with other people, then these ties are the way to attain important goods from the viewpoint of the individual (Matiaske 1999, p.182). Simultaneously, resources and experience which are embedded in social networks are not freely available for everyone in a given organization. Only thanks to participation in the network and ties with others does an individual gain access to specific knowledge and resources basing on the norms and values that are binding in the network (Penuel et al. 2009, p.129). The participation of an employee in social networks with other members of an organization creates the situation in which cooperative ties are formed on the basis of mutual trust and cooperation (Bylok et al, 2017).

In the analysis of social networks in an organization, it is worth focusing attention on the structure of ties between the network members. S. Wasserman and K. Faust (1998, p.4) perceive the structure of networks in the context of individual actions and patterns of ties between the actors participating in the network. The networks in which the members have a mutual impact on each other are featured by cooperation and the exchange of information (OH et al, 2004). A significant element of the network is that of nodes (Yunyun Yang and Gang Xie, 2015) that define its spatial structure. Nodes may be created by people, social positions, or other entities including collective entities (Skolik, Kukowska 2017, p.385). In sum, social networks in an organization may take on a different structure and their efficiency to a large extent is dependent on the ties and channels for the flow of information and knowledge between the network participants.

Scope of occurrence of social networks in enterprises in light of research

The research tools were built from questions facilitating the identification of the scope of the occurrence of social networks and benefits for employees resulting from participation in them, as well as their significance for the enterprises in which the networks function. The survey method was utilized in this research availing of the survey technique.

Research on the opinions of entrepreneurs, managers and workers on the social network in issue of the was executed in February of 2018, which was participated in by 149 enterprises, including 28 micro-sized enterprises (0–9 people), 38 small enterprises (10–49 employees) and 46 medium-sized enterprises (50–249 employees) and 40 large enterprises (250 workers and more). The enterprises were selected for research on the basis of purposive sampling.

With the aim of identifying the degree of occurrence of social networks in the analysed enterprises, indicators were created on the basis of the frequencies of mutual formal and informal relations between the employees and between the managers and the employees. The generalized indicator of networking for the analysed enterprises amounted to 5.73 on a scale of 1 to 10 (in which 1 signifies a lack, while 10 signifies high frequency or close relations). A detailed analysis of the generalized indicator with regard to the magnitude of the enterprises indicates that significant differences exist. Social networks exist to the greatest extent in micro-sized enterprises (5.17), large enterprises (5.91), while also in medium-sized firms (5.68), as well as to the least extent in small firms (5.31). Hence, social networks relatively more frequently prevail in micro-sized enterprises and in large enterprises rather than in small and medium-sized enterprises. This results from, among other things, the specifics of the organization of the enterprises, as in micro-sized firms due to the small number of people employed employees enter into direct relations while executing tasks. In turn, in large firms employee teams are created which are based on cooperation and co-action with the aim of executing the assigned tasks.

Social networks in enterprises function on the basis of formal and informal relations. Analysis of the indicators of networks in the analysed enterprises indicates the prevalence of formal ties over informal ones (Table 1). Indicators of formal ties attained a relatively high value, including the indicator of the frequency of the contacts of an employee with other employees with whom he/she has worked over the past year which reached a value of 7.59 and the indicator of the contacts of an employee with other employees with regard to professional issues attained a value of 7.17. Thus, it may be stated that in the analysed enterprises the relations between employees is of a formal nature in the workplace.

The cohesion of the network at hand is significantly influenced by informal relations between the employees that enable the strengthening of mutual ties between the members of the network. Research illustrates that the frequency of the contacts of an employee with other employees after work, e.g. get-togethers in a restaurant or pub is a low level (4.49), in which differences are evident between the magnitude of the enterprises, the greatest frequency of informal relations prevail in the micro-sized enterprises, while the lowest in the small enterprises. Employees enter informal relations at work with relatively few employees. The average number of employees with whom an individual maintains informal contact amounted to 4.36. In micro-sized enterprises employees enter informal ties with 4.07 employees, whereas with 4.05 employees in small enterprises, 4.37 employees in medium-sized firms and with 4.84 employees in large firms.

Formal and informal contacts have an impact on the closeness of the ties between the employees. Analysis of the research results of the closeness of the ties between employees illustrates that significant differences between the enterprises exist. A relatively higher value in terms of the indicator was attained in micro-sized enterprises (5.70) than in small enterprises (4.43). The closeness of ties between employees is associated with direct communication, namely "one on one", which is of a spontaneous nature and is based on a relatively small number of communication channels. Interpersonal communication via multilateralism and mutuality of the information transfer is the fundamental condition of the efficiency of social networks. It facilitates the creation of relations between the employees and the management of the enterprise on the basis of cooperation and trust, as well as transforming employee involvement into the development of the enterprise.

Table 1. Indicators of social networks in analysed enterprises

Indicators of social networks	Total	Micro-sized firms	Small firms	Medium-sized firms	Large firms
Frequency of contacts of an employee with other employees with whom he/she cooperated over the past year	7.59	7.67	7.05	7.75	7.87
Frequency of contacts of an employee with other employees with relation to professional issues	7.17	7.81	6.24	7.17	7.59
Frequency of contacts of an employee with other employees after work (get-togethers for dinner in a restaurant, supper or in a pub)	4.49	4.85	4.16	4.4	4.68
Closeness of ties of employees with other employees	4.91	5.70	4.43	4.47	5.35
Frequency of contacts with managers to whom they can refer to for assistance or advice	6.49	7.15	6.12	6.78	6.02
Closeness of ties of employees with the manager	5.08	5.92	5.08	4.73	4.89

Scale of values from 1 to 10, in which 1 signifies a lack, while 10 signifies high frequency or close relations.

Source: *Self-analysis*

The participation of managers in the social networks within the enterprise strengthens their relations with their subordinates. According to the models of the networks prepared by Burt (2000), managers are becoming significant elements of the social networks. It has been accepted in the research that the indicators for the network that are composed of employees and managers are as follows: the frequency of contacts with the managers to whom they may approach for assistance or advice and the closeness of the ties of the employees with the manager. In the former case, the highest frequency was noted in micro-sized firms (7.15) and in medium-sized firms (6.7). Likewise, the highest value in terms of the indicator of the closeness of ties between the employees and the manager was observed in the micro-sized firms (5.92). In sum, social networks first and foremost occur where there are relatively close ties between the employees and the manager resulting from the specifics of the organization of work of the enterprises, which has a positive impact on the effectiveness of the employees.

The existence of efficiently functioning social networks brings a multitude of benefits to both the employees that participate in them, as well as the enterprises. Thanks to the networks, employees have first and foremost greater access to new knowledge (3,71), and new skills (3,72), which has a positive impact on their effectiveness at work. Another significant benefit is also in the form of support in difficult issues (3,69), which in turn reinforces their feeling of security. Other important benefits for employees are as follows: information that is necessary for work (3,63), new competences arising out of cooperation (3,51), particularly social competences. Apart from this, the sense of belonging to an attractive social network ensures the participants of a higher level of prestige (3,23).

A detailed analysis of the ties between the indicators of social networks and the type of resources that are attractive for employees facilitates the definition of their relation. The Gamma correlation was availed of for the purpose of analysing these relations. The achievement of a multitude of attractive resources is first and foremost influenced by the frequency of contacts of the employee with other employees with whom he/she has cooperated with over the past year. Above all, this relates to the acquisition of information that is essential at work (Gamma indicator $\gamma=0,405$, $p=0,00$) and support in difficult circumstances (Gamma indicator $\gamma=0,359$, $p=0,00$). With regard to the indicator of the frequency of contacts of an employee with other employees with whom he/she has been in contact with relating to professional issues, this has had the greatest impact on the acquisition of such resources as the following: new knowledge ($\gamma=0,3799$, $p=0,00$) and information that is necessary at work ($\gamma=0,380$, $p=0,00$). Hence, the greater the frequency of formal contacts with other employees, the greater the possibility of acquiring attractive resources that enable the attainment of better results at work.

Attractive resources are also acquired by employees thanks to informal contacts with other employees. Analysis of the relations between the indicator of the contacts of an employee with other employees after work (get-togethers in a restaurant for dinner, supper or in a pub) and the resources indicates the occurrence of the correlation with support in difficult circumstances ($\gamma=0,242$, $p=0,001$) and new knowledge ($\gamma=0,235$, $p=0,001$). Relatively less impact on the potential possibility of acquiring attractive resources is illustrated by the number of employees with whom the employee maintains informal contacts at work. This impact only relates to exerting influence on others ($\gamma=0,208$, $p=0,002$) and the attainment of a higher position ($\gamma=0,226$, $p=0,001$).

In turn, analysis of the relations of the indicator in terms of the closeness of ties of employees with other employees with resources illustrated a significant relation with the acquisition of new knowledge ($\gamma=0,356$, $p=0,00$) and the acquisition of new skills ($\gamma=0,233$, $p=0,001$).

The creation of social networks in which employees and managers participate enable the employees to achieve the specified attractive resources. In particular, when employees ask for help or advice from the manager, this is reflected in the analysis of the correlation between the indicator of the frequency of contacts with managers, to whom it is possible to approach for help or advice, information that is necessary at work ($\gamma=0,271$, $p=0,001$) and attainment of a higher position ($\gamma=0,269$, $p=0,001$), as well as a higher level of prestige ($\gamma=0,212$, $p=0,001$).

Employees achieve benefits from their relations with managers, the greater the closeness of the ties with the manager at hand are. This is illustrated by the analysis of the relations between the indicator of the closeness of the ties of the employees with the manager and such resources as the following: new knowledge ($\gamma=0,362$, $p=0,00$) and higher level of prestige ($\gamma=0,269$, $p=0,001$).

The existence of social networks is not only beneficial for the employees, but also for the enterprises. They facilitate the attainment of better economic results and a more competitive position on the market. The authenticity of this theory is proven by analysis via the Gamma correlation between the indicators of social networks and the benefits achieved by the enterprise at hand last year. In the creation of new products in an enterprise, the mutual exchange of information is important between the manager and the employees and between the employees themselves. Analysis of the relations between the indicators of social networks and the new products created over the past reveals that it had the greatest frequency of contacts between the employee and other employees relating to professional issues ($\gamma=0,259$, $p=0,001$) and the frequency of contacts between the employee and other employees with whom he/she has cooperated with over the past year ($\gamma=0,216$, $p=0,001$).

In turn, the formation of new investments is first and foremost influenced by the frequency of contacts between the employee and other employees relating to professional issues ($\gamma=0,313$, $p=0,00$), the frequency of contacts with managers to whom they may approach for assistance or advice ($\gamma=0,279$, $p=0,001$) and the closeness of the ties of employees with other employees ($\gamma=0,279$, $p=0,001$).

The competitive position of an enterprise is influenced by the growth in sales of the products manufactured. Research illustrates that the greatest impact was caused by the frequency of contacts between the employee and other employees after work (get-togethers in a restaurant for dinner, supper or in a pub) ($\gamma=0,320$, $p=0,00$) and the frequency of contacts between the employee and other employees relating to professional issues ($\gamma=0,271$, $p=0,00$).

Increasing the resources of the enterprise constitutes an important factor in the economic condition of the enterprise at hand. Analysis of the research results illustrates that a significant impact on the growth of resources of enterprises was caused by the indicators of the frequency of contacts between the employee and other employees after work (get-togethers in a restaurant for dinner, supper or in a pub) ($\gamma=0,384$ $p=0,00$), as well as the closeness of the ties between the employees ($\gamma=0,345$, $p=0,00$).

The intensity of the activities of enterprises on the market was positively influenced by the frequency of contacts between the employee and other employees after work (get-togethers in a restaurant for dinner, supper or in a pub) ($\gamma=0,305$, $p=0,00$), the number of employees with whom the respondent maintains informal contact at work ($\gamma=0,306$, $p=0,00$), as well as the closeness of the ties between the employees and the manager ($\gamma=0,249$, $p=0,001$).

The development of enterprises in a significant way is dependent on the innovativeness of the employees. The factors supporting the innovativeness of employees are first and foremost the frequency of contacts between an employee and other employees after work (get-togethers in a restaurant for dinner, supper or in a pub) ($\gamma=0,432$, $p=0,00$), the number of employees with whom the respondent maintains informal contact at work ($\gamma=0,397$, $p=0,00$) and the closeness of contacts between the employees and the manager ($\gamma=0,287$, $p=0,00$),

The innovativeness of employees supports the developed research and development activities. In the analysed enterprises the growth of these activities is dependent on, among other things, the frequency of the contacts of an employee with the other employees after work (get-togethers in a restaurant for dinner, supper or in a pub) ($\gamma=0,361$, $p=0,00$), the frequency of the contacts with managers to whom they may approach for assistance or advice ($\gamma=0,304$, $p=0,00$) and the number of employees with whom the respondent maintains informal contact at work ($\gamma=0,305$, $p=0,00$).

By way of conclusion, social networks have an influence on the development of enterprises in a significant way by means of the contribution towards the creation of new products, investments, the increase in resources, the development of research and development activities and the stimulation of innovativeness.

Conclusion

Social networks are an important factor that influences the success of enterprises on a competitive market. The research conducted enables the formulation of the conclusion that the functioning of social networks is beneficial both for the employees, as well as for the enterprises. Employees gain access to important resources such as knowledge, information, security, prestige or higher positions. Likewise, thanks to this they acquire new skills and competences. In turn, thanks to networks, enterprises may create new products, innovations, investments, while also increase their resources and develop research and development activities.

Knowledge relating to the nature of social networks may help managers in terms of stimulating the pro-innovative activities of employees, which increases the competitiveness of enterprises on the market. With relation to this fact, they should place greater emphasis on their formation. Becoming familiar with their structure of functioning facilitates the optimization of the use of the potential in them for activities for the good of the organization. With relation to this fact, it is worth undertaking further research on the essence of social networks, particularly their impact on the functioning of enterprises.

A significant restriction on the research conducted on social capital was the size of the sample for research. The author at hand is aware that the findings from the research are merely restricted to the analysed firms, albeit the research was aimed at outlining the intricate problematic areas of social networks and constituting a starting point for further research.

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MODELLING OF SUSTAINABLE DEVELOPMENT OF EUROPEAN UNION IN A DYNAMIC PERSPECTIVE

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Abstract: The authors make an attempt to analyse the development of trends in the sustainable development of European Union countries. In the paper the indicators are divided into 12 thematic areas and data published by Eurostat was used. The main purpose of the paper is to determine trends in the area of sustainable development of the EU countries (based on data from 2008 to 2015) and to order these countries into the typological groups with similar dynamics of the studied phenomenon. In the dynamic classification the results of the modelling of trends evaluated on the basis of taxonomic measures of development based on Weber median vector were used. The added value of the paper is an analysis of changes in an area of sustainable development on the basis of trends evaluated for all EU countries.

Keywords: sustainable development, European Union, Weber median vector, dynamic classification

Introduction

The main purpose of the paper is to determine trends in the area of sustainable development of the EU countries and to separate these countries into the typological groups with similar dynamics of a studied phenomenon. For these purposes the data from 2008 to 2015 was used. In a dynamic classification the results of modelling of trends, estimated on the basis of taxonomic measures of development based on Weber median vector, were used. The added value of the paper is an analysis of changes in an area of sustainable development on the basis of trends estimated for each EU countries. The paper consists of four sections. The first section is an introduction. The second section contains literature review related to the measurement of sustainable development in European Union. The next section is devoted to the literature review. Next the methodological issues of empirical studies are presented. The fourth section deals with empirical results of the research. The paper is closed with conclusions.

The measurement of sustainable development in Europe – literature review

The first definition of sustainable development was formulated in the report “Our Common Future”, also known as the Brundtland Report (WCED 1987). According to this source sustainable development is defined as: “development that meets the needs of the present without compromising the ability of future generations to meet their needs” (WCED 1987, p. 41). Since then, many different definitions concerning various areas of sustainable development have been found in the literature of the subject and sustainable development in scientific work is presented in many different ways (United Action 2007). In the literature sustainable development becomes the basis for many analyzes related to various areas of countries' development. In many definitions of international competitiveness sustainable development or high quality of life is indicated as one of the main goals. Sustainable development is also the important area in the study of transport (Cheba, Saniuk 2016, p. 1230-1239), technological development (Hopwood, Mellor, O'Brien 2005, p. 38–52), cities' development (Ioppolo et al., 2016, p. 1-16), public health (Buse, Hawkes 2015, p. 1-8) and many others.

In Europe between 2006-2008 most countries (e.g. Denmark, Ireland, Malta, Norway, Portugal, Romania, Spain, Switzerland, Italy, Lithuania, Bulgaria) started to revise their National Sustainable Development (SD) Strategies. Countries such as: Austria, Czech Republic, France, Latvia, Luxembourg started these changes in 2009-2010 and Finland, France and Slovenia in 2010-2012. A completely different approach to this topic was applied by Austria, which in 2011 developed an SD strategy as a jointed effort between the national and regional level, the first of its kind in Europe. In Poland, the concept of sustainable development has been recognized as a constitutional principle and it is included in Art. 5 of the Constitution of the Republic of Poland as one of the constitutional principles. In 2011 the Central Statistical Office together with the Statistical Office in Katowice published the first report entitled "Indicators of sustainable development in Poland" (GUS 2011). Sustainable development is assessed here based on 76 indicators divided into 4 factors: social,

economic, environmental and institutional (Bielak and Czumaj 2015, p. 12-24). Actually European countries are considered to be the leading examples in NSDS formulation and implementation of actions for sustainable development (Meadowcroft 2000, p. 370-387). This nearly 10-year experience is not only for individual Member States but also for the whole level of EU. It means that the EU has also developed SD indicators database, which allows for comparative analysis between Member States.

Methodological issues of empirical studies

The research presented in the work was carried out based on data presented by Eurostat. The original data base included 124 indicators describing 10 themes of the European sustainable development in 2008-2015. Currently indicators measuring sustainable development are presented in the Eurostat database in two ways: in old version as a set of indicators divided into 10 thematic areas and in new one which is consistent with the goals of Agenda 2030 for Sustainable Development divided into 17 goals. In the paper, the first of these methods was used to measure the sustainable development of the European Union countries. The added value of the paper is to analyse the direction of changes in an area of sustainable development on the basis of trends estimated for EU countries. The primary criterion for the selection of indicators for the study was their availability throughout the analyzed period. Due to gaps in the original database, Croatia was excluded, which means that the indicators for sustainable development were analyzed in the 27 EU Member States. In the next step, a parametric method proposed by Hellwig (1981, p. 125) was used to select a final set of diagnostic features. Table 1 contains the classification of diagnostic features divided into stimulants and destimulants⁷.

Table 1. Final data base – division of diagnostic features into stimulants (S) and destimulants (D)

Theme	Features
Socio-economic development	x1D – total unemployment rate (% , D)
Sustainable consumption and production	x2S – resource productivity (Euro per kilogram, S), x3D – total emission of nitrogen oxides (NOx), (tonnes per 1 km ² , D)
Social inclusion	x4D – people living in households with very low work intensity (% , D) x5D – early leavers from education and training (% , D) x6S – tertiary educational attainment by sex, age group 30-34 (% , S) x7D – long-term unemployment rate (% , D) x8D – relative median at-risk-of-poverty gap (% , D) x9D – at most lower secondary educational attainment by age, from 25 to 64 years (% , D)
Demographic changes	x10D – general government gross debt (% of GDP), x11S – aggregate replacement ratio (% , S) x12S – total fertility rate (number of children per woman, S)
Public health	x13D – people having a long-standing illness or health problem, by income quintile (% , D) x14D – proportion of population living in households considering that they suffer from noise (% , D)
Climate change and energy	x15S – share of renewable energy in gross final energy consumption (% , S) x16S – share of renewable energy in fuel consumption of transport (% , S) x17S – combined heat and power generation, % of gross electricity generation (% of gross electricity generation, S)
Sustainable transport	x18D – volume of freight transport relative to GDP (% , D)
Good governance	x19D – shares of environmental in total tax revenues from taxes and social contributions (% , D) x20S – level of citizens' confidence in EU institutions (% , S)

Source: own elaboration based on Eurostat data

⁷ The stimulants are numbers whose bigger values indicate a higher level of progress of a given phenomenon, while the destimulants are diagnostic features whose smaller values signify a higher level of development (Hellwig 1981).

Next, a taxonomic measures of development based on the Weber median vector (1971, p. 181) were calculated. The median Weber is a multi-dimensional generalization of the classical notion of the median. It is about vector that minimizes the sum of Euclidean distance of the data points representing the considered objects and therefore is somehow "in the middle" of them, but it is also immune to the presence of outliers. The positional option of the linear object assignment takes a different normalization formula⁸, compared to the classical approach, based on a quotient of the feature value deviation from the proper coordinate of the Weber median and a weighed absolute median deviation using the Weber median (Młodak 2014, p. 895-929; Szopik-Depczyńska et al., 2018, p. 120-131.). The synthetic measure μ_i is calculated on the basis of maximum values of normalized features, similarly to the Hellwig (1981, p. 46-68) method: $\varphi_j = \max z_i (i = 1, 2, \dots, n)$, according to the following formula:

$$\mu_i = 1 - \frac{d_i}{d_-} \quad (1)$$

where: $d_- = \text{med}(\mathbf{d}) + 2,5\text{mad}(\mathbf{d})$, where $\mathbf{d} = (d_1, d_2, \dots, d_n)$ is a distance vector calculated with the formula: $d_i = \text{med}|z_{ij} - \varphi_j|$, $i = 1, 2, \dots, n$, φ_j – the i -th coordinate of the development pattern vector, which is constituted of the maximum values of the normalized features.

Based on the identified taxonomic measures of development the parameters of the linear and exponential functions of the first and second degree were estimated. In the dynamic classification of the investigated phenomenon the random variation of the identified taxonomic measure of development in the classified objects is compared to determine the stability of observed changes over time. The measure of the intensity of random fluctuations in the interval $[1, T]$ is the coefficient of variation of trends of the taxonomic measures of the compared objects:

$$w_i = \frac{s_{e_i}}{\bar{z}_i} \quad (2)$$

where: \bar{z}_i is the arithmetic mean of the object's measure of development O_i in the time interval $[1, T]$, a s_{e_i} is the standard deviation of the residuals of the i -th object:

$$s_{e_i} = \sqrt{\frac{1}{T} \sum_{t=1}^T (e_{it} - \bar{e}_i)^2} \quad (3)$$

where e_{it} means residuals of the trend of the taxonomic measure of development of the i -th object, there are deviations of the real values z_{it} of this measure from its theoretical values \hat{z}_{it} estimated on the basis of the trend. Higher values of coefficients w_i indicate higher random variations over time of the level of the studied phenomenon. This coefficient may be the basis for separating groups of objects with a similar range of random variability of the taxonomic measure of development. This type of classification is used to assess the stability of the analyzed phenomenon over time. The assignment of objects with a positioning measure is the basis for dividing objects into four classes. The most commonly used grouping method in the positioning scope is called the *three medians method*, as follows: a) group I: $\mu_i > \text{med}_1(\mu)$, b) group II: $\text{med}(\mu) < \mu_i \leq \text{med}_1(\mu)$, c) group III: $\text{med}_2(\mu) < \mu_i \leq \text{med}(\mu)$, d) group IV: $\mu_i \leq \text{med}_2(\mu)$.

Study results and discussion

Table 2 shows the results of the classification obtained by means of the taxonomic measure of development calculated on the basis of the features of their sustainable development. In this table the results for selected years (2008 and 2014-2015) were presented. The presented information shows that the constructed classifications are not stable over time. The positions occupied by individual EU countries in the rankings received in most cases were different. Taking into account the beginning and the end of the period considered, only five countries (Bulgaria, the Czech Republic, France, Malta and Lithuania) did not

⁸ The median Weber vector was calculated in *R program*: *lmedian* of package: *pcaPP* on the basis of features by transforming destimulants into stimulants on the basis of the following formula: $x'_{ij} = 1/x_{ij}$, $I = 1, 2, \dots, n$; $j = 1, 2, \dots, n$.

change their positions in the studied years, which does not mean that their positions were stable throughout the considered period. It is worth noting that only ten EU Member States reported an improvement in sustainability in 2014 compared to 2008. Over 50% of the EU countries recorded a decline in the ranking in this period, with the highest in Romania (10 down) and Denmark (8 down). Between 2008 and 2015, the highest (first and second) positions were alternately occupied by Sweden and Luxembourg. In four countries, the ranking has improved by at least eight positions (the Netherlands, Latvia and Germany).

Based on the results of taxonomic measures calculated on the basis of Weber median vector in 2008-2015, the parameters of the linear and exponential functions of the first and second degree were estimated. It should be noted that the results of taxonomic measures of development calculated on the basis on features from 2015 differed significantly from the results obtained in previous years. For this reason, the trend models estimated on the basis of the results from the entire analyzed period were characterized by a low degree of matching to real data. The coefficient of matching to real data (R^2) did not exceed 50%. Therefore, it was decided to eliminate the value of the taxonomic measure of development of 2015 and re-estimate the parameters of the trend function in 2008-2014. The same situation may be observed in the case of data from 2017. As it was indicated in many papers analysing the influence of economic crisis from 2007-2008, in these time we can observed the collapse of many economic indicators in the world. The same results were presented in previous paper published by authors [Bağ, Cheba 2017, p. 14-20]. In the next table (Table 3) the results of dynamic classification based on data from 2008 to 2014 were presented. It turned out that the second-order linear and exponential models best describe changes in taxonomic development measures over the considered period. These models were used in the dynamic classification. Based on them the classification of the EU countries according their stability of sustainable development over time, were carried out. The higher the stability, the lower the w_i coefficients are. The order of EU countries based on random fluctuations based on these two trends are very similar. Separate typological groups of countries are also similar. Only in the case of four objects shifts are noticed to neighboring classes.

Table 2. The vales of taxonomic measure and positions in the rank calculated for EU countries in 2008 and 2014-2015

Country	Position in the rank					
	2008		2014		2015	
	μ_i	rank	μ_i	rank	μ_i	rank
Austria	0,864	8	0,676	5	0,506	11
Belgium	0,825	16	0,567	13	0,444	16
Bulgaria	0,783	24	0,404	24	0,222	24
Cyprus	0,827	14	0,505	20	0,356	20
Czech Republic	0,821	18	0,508	18	0,447	15
Denmark	0,894	3	0,586	11	0,542	7
Estonia	0,878	5	0,660	7	0,605	5
Finland ⁴	0,868	7	0,751	3	0,655	3
France	0,872	6	0,665	6	0,584	6
Germany	0,773	26	0,529	16	0,345	21
Greece	0,788	22	0,271	27	0,124	26
Hungary	0,814	20	0,523	17	0,528	9
Ireland	0,855	9	0,586	12	0,628	4
Italy	0,800	21	0,410	22	0,238	23
Latvia	0,818	19	0,647	8	0,487	14
Lithuania	0,889	4	0,712	4	0,523	10
Luxembourg	0,899	2	0,902	1	0,769	1
Malta	0,777	25	0,385	25	0,119	27
Netherlands	0,825	17	0,594	9	0,420	17
Poland	0,841	12	0,594	10	0,496	13
Portugal	0,766	27	0,410	23	0,284	22
Romania	0,843	11	0,497	21	0,408	18
Slovakia	0,827	15	0,507	19	0,539	8
Slovenia	0,849	10	0,532	15	0,500	12
Spain	0,783	23	0,292	26	0,210	25
Sweden	0,938	1	0,832	2	0,762	2
United Kingdom	0,835	13	0,539	14	0,405	19

Source: own calculation based on Eurostat data

Table 3. Ordering of EU countries according their stability of sustainable development in 2008-2014

the linear trend of the second degree			the exponential trend of the second degree		
Country	w_i	rank	Country	w_i	rank
Group 1:			Group 1:		
Luxembourg	0,032	1	Luxembourg	0,032	1
Sweden	0,069	2	Denmark	0,069	2
Finland	0,076	3	Belgium	0,069	3
Denmark	0,079	4	Sweden	0,070	4
Belgium	0,083	5	Finland	0,075	5
France	0,099	6	Cyprus	0,093	6
Cyprus	0,110	7	Group 2:		
Group 2:			France	0,095	7
Austria	0,120	8	Austria	0,116	8
Netherlands	0,123	9	Netherlands	0,119	9
Poland	0,154	10	Bulgaria	0,146	10
Bulgaria	0,165	11	United Kingdom	0,148	11
Hungary	0,167	12	Poland	0,150	12
United Kingdom	0,172	13	Hungary	0,159	13
Estonia	0,174	14	Group 3:		
Slovenia	0,175	15	Greece	0,165	14
Group 3:			Slovenia	0,172	15
Germany	0,192	16	Estonia	0,184	16
Ireland	0,206	17	Germany	0,192	17
Romania	0,207	18	Romania	0,207	18
Greece	0,208	19	Ireland	0,212	19
Slovakia	0,215	20	Slovakia	0,216	20
Lithuania	0,221	21	Group 4:		
Group 4:			Czech Republic	0,225	21
Czech Republic	0,224	22	Lithuania	0,228	22
Italy	0,264	23	Portugal	0,240	23
Portugal	0,266	24	Italy	0,254	24
Latvia	0,279	25	Spain	0,282	25
Spain	0,322	26	Latvia	0,327	26
Malta	0,507	27	Malta	0,695	27

Source: own calculation based on Eurostat data

Conclusion

The paper attempts to identify trends of changes in the area of sustainable development in EU countries and to distinguish typological groups of objects with similar dynamics of the studied phenomenon. The Weber median and dynamic classification methods employed in the study allowed to trace changes in the area of the EU sustainable development. Based on the estimated coefficients of random fluctuations of the trend of taxonomic measures of development, it can be said that the highest stability of sustainable development over time was characterized by Scandinavian countries and Western Europe. On the other hand, the unfavorable situation has been observed mainly in Southern European countries. It should be noted that the decrease in the value of the taxonomic measures in 2015 did not allow to estimate the trends on the basis of data from the entire period considered. It doesn't mean that this method does not allow to analyse changes in the level of sustainable development in the dynamic perspective. We can observe some different stages of this development: the increase after the socio-economic crisis in 2007-2008 and the next decrease in 2015. For this reason, stability in the area of sustainable development was examined only for data from 2008-2014. From 2015 the next analyses could be provided on the basis of new indicators

The results presented in the paper can be used in subsequent years to examine the direction of change in the area of EU sustainable development.

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RISK MANAGEMENT OF HEALTHCARE UNIT'S ACTIVITIES IN THE PROCESSES OF THEIR MERGER

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Abstract: The purpose of the article is to indicate the risk areas of the activity of SPZOZ, in which the decisions about the planned merger are a tool to reduce this risk. The subjects for consideration are healthcare entities in the form of independent public healthcare institutions (SPZOZ) - hospitals. On the basis of the literature on the subject, legal acts and observation of the practice of functioning of these entities, one can formulate the hypothesis that the risk management of health care entities in the merger processes is closely related to the specificity of their operations. To verify this hypothesis, research tools such as the analysis of subject-related literature and legal acts, while also observations were carried out during the audit of financial statements.

Keywords: public sector, health care, risk in management, mergers of health care units

Introduction

Independent public healthcare unit - a hospital - is an economic entity defined by law as a healthcare entity which is not an entrepreneur. A hospital is defined as a company of a medical entity in which this entity performs medical activities in the form of hospital services. The rules of the hospital operation are specified in the Act on Medical Activity (Act on Medical Activity of April 15, 2011, Part 2) and the statute. The Statute may provide for leading specific organizationally separated activity other than medical activities. The statute is granted by the founding entity.

The activity of independent public health institutions (SPZOZ), especially hospitals, as the largest units of the health care system, requires thoughtful and planned restructuring decisions from plants and entities which creates the health care units. Their goal is to improve economic and financial conditions and improve the quality of health services.

The purpose of the article is to indicate the risk areas of the activity of SPZOZ, in which the decisions about plants merging are a tool to reduce this risk. In further studies, significant modifications of the rules for the implementation of hospital connection processes, resulting from legal provisions, will be indicated. These rules will allow in practice better use of connection processes to improve the condition of healthcare entities. Based on the literature on the subject, legal acts and observation of the activity of these entities, a research hypothesis can be formulated that "risk management of health care entities in the merger processes is closely related to the specificity of their activities".

To verify this hypothesis, such research tools as analysis of the literature on the subject and legal acts, observations carried out during the audit of financial statements were used. The subjects of consideration are health care entities in the form of independent public healthcare units (SPZOZ) – hospitals (in the article terms SPZOZ and hospital are used interchangeably).

Background. Risk factors in the activity of health care entities

The risk can be considered as the result of uncertainty connected with all the external and internal factors affecting the malfunctioning of the system of health care delivery. Recognition of these phenomena, identification of the reasons for their occurrence along with the estimation of potential sizes, as well as the hierarchization of individual elements are indispensable conditions for selection, and sometimes creation of procedures and tools for managing this risk. B. R. Kuc (2002, p. 388) while defining the risk states that it is "the possibility or probability that the goal of the undertaking will not be reached, its result is uncertain". The impact of risk on the achievement of goals can be both positive (possibilities, opportunities) and negative (threats, barriers). The Ministry of Finance issued a statement on detailed guidelines for the public finance sector in the field of risk planning and risk management. The basic risk groups of the functioning of medical entities are:

- a) financial risk,
- b) human resources risk ,
- c) activity risk,
- d) external risk. (Announcement No. 6 of the Minister of Finance of December 6, 2012)

Due to the specificity of healthcare units, it seems useful to distinguish financial risk and non-financial risk. These risks can occur together.

Since the separation of the SPZOZ as independent health care units, they were exposed to unstable, unfavorable environmental conditions in which they had to operate. The health situation of the society, constant changes in legal regulations, and systemic changes have resulted in the fact that health care entities are characterized by uncertainty and risk of activity, in particular the risk of losing the possibility of its undisturbed continuation. Important factors directly affecting the risk of disruptions and unfavorable financial and property conditions include such negative phenomena as:

- a) indebtedness of hospitals,
- b) payment delays,
- c) lawsuits,
- d) employee tensions and protests, wage claims,
- e) negative equity values,
- f) negative financial results,
- g) lack of funds for restoring assets.

Non-financial risk is associated with the system of providing health services and their consequences. As operational risk, it depends on the quality of services provided. Deterioration in the quality of services results in negative consequences manifested by claims for damages, litigation, loss of reputation, loss of contract with the funding body, loss of patient trust, reduction in the number of potential patients. Many of these effects translate into financial consequences - the emergence of costs and losses.

Results. SPZOZ – hospital as a management entity

Entities founding the SPZOZ are local government units, ministers, central government administration bodies or medical schools. Responsibility for managing the medical entity - the hospital - is borne by the manager. The working relationship with the hospital manager is established by the founding body. In the health care entity not being an entrepreneur - SPZOZ - operates the social council, which is the initiating and consultative body of the founding entity and advising body to the manager. The most important tasks of the social council are to present to the founding entity the conclusions and opinions on the following issues:

- a) the disposal of fixed assets and the purchase or acceptance of donations for new medical equipment and devices,
- b) transformation or liquidation, extension or limitation of operations,
- c) awarding prizes to the manager,
- d) termination of employment or civil law contract with the manager.

In the area of cooperation between the social council and the head of the unit, the tasks of the council include presenting conclusions and opinions on:

- a) a financial plan, including an investment plan and an annual report on their implementation,
- b) bank loans or subsidies,
- c) distribution of profit,
- d) disposal of fixed assets and purchase or acceptance of donations of new medical equipment and devices,
- e) organizational regulations. (Act of April 15, 2011 on medical activity, article 48)

Independent public healthcare institutions, including hospitals, belong to public sector entities. (Act of August 27, 2009 on Public Finances, article 9) As entities of this sector, using public funds in their activities, they are obliged to observe a number of principles, first of all public finance discipline. The entities of the public finance sector should fulfill the objectives of their activity in a lawful, economical, timely and effective manner.

The risk of operations, the negative consequences of this risk, are of interest to the management, social councils and entities founding the plants. SPZOZ as independent units, distribute the profit which they generate themselves or cover the loss of activity on their own. If they are not able to cover

a negative financial result from the plant's fund, the founding entity is obliged to cover the loss in the amount not greater than the sum of the net loss and depreciation costs within 9 months from the deadline for the approval of the financial statements or make a decision within 12 months to liquidate an independent public health care unit. (Act of April 15, 2011, article 59) One of the forms of improving the economic and financial condition of a unit is the process of combining the plants.

Discussion

The SPZoz mergers runs in accordance with the guidelines of the Act on medical activities of April 15, 2011. The principle of business mergers, contained in the Act on Accounting of September 29, 1994, does not apply to these processes. The regulations of the Accounting Act refer to the settlement and recognition of these mergers in the accounts of commercial companies. The mergers of independent public health facilities can be made by:

- 1) transfer of all property of at least one SPZoz (taken over) to another SPZoz (acquiring),
- 2) creation of a new SPZoz created of at least two merging SPZoz.

There may also be a situation of combining several SPZoz simultaneously and transforming them into a commercial company.

Entities founding independent public health care units may merge these units by regulation (when the forming entity is the minister, central government administration body or a voivode), ordinance or resolution (if the constituting entity is a territorial self-government unit) so depending on the legal status of the founding entity. This procedure takes place in the case of plants having the same constituting entity. If the merging plants have different forming entities (e.g. district, voivodship), the merger process requires an agreement between these entities. (Goździkowski 2012, p. 44).

The merger of the SPZoz takes place without conducting liquidation proceedings of the acquired entity or merging entities. On the day of deleting the acquired entity from the National Court Register, the acquiring entity enters into all legal relationships of which the subject was the acquired entity. When a new plant is created as a result of the merger, it enters into all legal relationships of which the merging plants were subject, regardless of the legal nature of these relationships.

SPZoz mergers may be a response to the difficult financial and property situation of the units (Klich 2013, p. 256) or they may be a form of rationalization of entities' operations and effective use of the resources of the system (Hass-Symotiuk 2011, p. 47). The merger initiative may occur on the part of the entities themselves or may be decided by the forming entities. Complex operating conditions of the SPZoz enforce restructuring activities, including mergers or transformations, which causes such economic effects as:

- a) more efficient allocation of plants' resources,
- b) rational use of the assets of the units,
- c) changing organization of plants: combining or dividing units of internal structure,
- d) savings in the area of operating costs, primarily administration,
- e) changing the model of operation of the plants towards a systemic approach to patient treatment.⁹

The final answer to the question about the effectiveness of the merger processes is reached during the operation of the merged entities.

Conclusion

Managing the risk of the activity of the SPZoz (the hospital) as a public sector entity is a new challenge faced by plant managers. The identification of operational risk and its minimization has been included in the management of hospitals from the beginning of their operation. At present, however, it should be planned, systematized and formalized in a written form, in accordance with new legal regulations in this area. The hospital manager, who is responsible for the plant's operational efficiency together with other entities in the health care sector, focus his activities on reducing the risk of the plant's operations. Uncertainty and risk may come from the environment i.e. the health care system,

⁹ In one of the documents justifying the connection of the SPZoz one can read: "The purpose of the merger and transformation of plants is to provide the existing range of medical services and to expand the availability of medical services, improve the conditions for their provision and quality of health services and the possibility of their development." http://edziennik.mazowieckie.pl/WDU_W/2017/9395/oryginal/akt.pdf (accessed at: 7.05.2018)

and from the internal activities of the unit, but it may also affect them. Coordination of corrective actions, among others in the form of merger of plants, aiming at improving their functioning, may be a response to the risk of action. The analysis of legal acts and the literature on the subject allows us to positively verify the research hypothesis set at the beginning of the article.

Observation of the financial condition of the entities after the merger indicates the diverse condition of the plants. Some of them have used the chance to improve their fitness and mitigate the risk of activity, while others require further restructuring. In subsequent studies, the author will attempt to modify the principles of hospital connection processes, so that they become a tool to improve the condition of the plants. The analysis of the case study of hospital connections will also be important for this purpose.

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THE IMPACT OF FORMALIZATION OF INTELLECTUAL CAPITAL, WITH THE SUPPORT OF INFORMATION TECHNOLOGY, ON THE EFFECTIVENESS OF ACTIVITY OF POLISH HOSPITALS

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Abstract: The purpose of this paper is to demonstrate the impact of the conducted research in terms of the effects of the formalization of intellectual capital, with the support of information technology on the effectiveness of Polish hospitals' activities. The research data has been collected using a questionnaire completed by the Polish hospital managers. The collected data has been analyzed with the use of structural modelling. The structural model equation proposed in the paper was verified to be appropriately adjusted to the data and relationship between the level of information and communication technologies, as well as the management of the formalization of intellectual capital and effectiveness of operations in Polish hospitals in order to be positively and causally related.

Keywords: information and communication technology, management of intellectual capital, the operational effectiveness of hospitals

Introduction

Healthcare entities are under increasing pressures from demographic and epidemiological changes. Governments, healthcare organizations, and consumers expect these challenges to be addressed through innovations in information and communication technology. Health information systems (HIS) have the potential to increase effectiveness and save significant health expenditure (Stefko, Gavurova, Korony 2016, p. 168). Effective ICT can reduce the number of clinical errors, support clinicians and, what is more, improve information management. In addition, it can improve patient access to health services, remote care and education as well as effectiveness of hospital activity. The role of information and communication technology is quite significant in any kind of economic activity due to the very rapid development of ICT. The same applies to the role of ICT and HIS in healthcare (Sligo, Gauld, Roberts, Villa 2017).

This study presents the results of the research on an impact of formalization of intellectual capital, with the support of Information Technology, on the effectiveness of Polish hospitals. Survey method was used and a questionnaire tool addressed to the managers of Polish hospitals were used to collect research data.

Structural modeling equations (SEM) was used in order to determine the relationship between variables of the proposed research model. A SEM model used in the study has proved to be properly fitted to the data. A positive and causal relationship between the level of information and communication technologies, formalization of intellectual capital and effectiveness of operation in Polish hospitals has also been proven.

Background

One of the main goals of hospital activity is to provide medical services of the highest quality and broad satisfaction of social needs in this area. Both private and public healthcare units should act in accordance with the principles of economic efficiency. The knowledge about the provision of medical services is the basic and strategic resource of medical entities and therefore one of the conditions for effective implementation of the hospitals' activity goals may be the appropriate management of knowledge and intellectual capital in the hospital.

Intellectual capital consists of three basic categories of intangible assets: structural, relational and human capital (Petty, Guthrie 2000, p. 153). Intellectual capital has qualities that can contribute to the growth of the company's value. It is a collection of immaterial resources and methods of their transformation (Bontis et al. 1999, p. 397).

The concept of transformation of intellectual capital is similar to the transformation of knowledge in the Nonaka-Takeuchi model of knowledge management (Nonaka 1991, p. 98).

One of the basic goals of knowledge management is the transformation of tacit knowledge into explicit, codified, and formalized knowledge. Explicit knowledge can be the property of the organization, tacit employee knowledge can only be "leased" by employers. For that reason, externalization, formalization, and socialization of knowledge, as well as intellectual capital becomes one of the main tasks of managers of modern organizations.

In contemporary business practice, information systems operate to a large extent through adequate technological infrastructure defined as information and communication technologies (Nowicki, Sitarska 2010).

D. Jelonek and A. Chluski note that hospital's information system and hospital organizational structure are often divided into medical ("white") and administrative ("grey") part. This is due to the different functions and tasks performed by those parts of the hospital (Jelonek, Chluski 2014). Consequently HIS should correspond to the hospital organizational structure and ensure the implementation of basic areas of activity, such as (Chluski 2016):

- saving personal and medical data of patients and supporting the management of patient relations,
- supporting access to sources of medical knowledge databases and supporting the implementation of Evidence-Based Medicine,
- supporting distant forms of providing medical services and supporting medicines used in supply chain management and other medical resources,
- supporting financial and administrative functions of hospital management.

Information and communication technologies are becoming more and more important element of intellectual capital management in healthcare (Ziora, Chluski 2015). Properly used ICT can significantly improve the effectiveness and quality of medical services (Karczewska, 2010, p. 247) (Duffy 2011, p. 61). In specific cases the employing of information and communication technologies are a prerequisite for the provision of specific, remote medical services.

A general social goal of healthcare systems is to ensure the health safety of citizens. This applies to meeting individual health needs resulting from diseases, ailments, accidents and the needs for preventive medicine. Another important objective of the healthcare system is to meet collective health needs, such as living, working, resting and other aspects of collective life which minimize, eliminate and prevent the risk of losing health or life.

In this article, the effectiveness of hospital operations is recognized in the broad sense. It includes both the provision of health services as well as management decisions relating to the activity of the hospital (Cantor, Poh 2018).

The features of health services that should positively influence the broadly understood effectiveness of hospital operations include:

- availability and justice,
- effectiveness and usability,
- adequacy and social acceptance,
- economic autonomy (Whitfield, Surowiec, Kautsch 2001, p. 312).

The primary objective of the activity of medical entities is to provide medical services, improve health and often save the lives of patients. For that reason hospital activity is focused on social goals and not just on generating profits .

The hypotheses, the research model and methodology

Formal structural model equations (SEM) (Rao, Miller, Rao 2011, p. 202) consists of structural equations, which determine the relationship between the theoretical constructs - latent variables η and ξ :

$$\eta = B\eta + \Gamma\xi + \zeta \quad (1)$$

and equations determining the relationship between the theoretical constructs η and ξ and their observable variables, respectively y and x :

$$y = \Lambda_y \eta + \epsilon \quad (2)$$

$$x = \Lambda_x \xi + \delta \quad (3)$$

where: B , Γ , Λ_y , Λ_x are relevant factors and factor loadings matrices, ζ is a vector of latent residues, ϵ and δ are vectors of measurement errors of observable variables, respectively: x and y .

The additional assumptions for this model are as follows:

- $E(\eta) = 0$, $E(\xi) = 0$, $E(\epsilon) = 0$, $E(\delta) = 0$ (E is expected value),
- ξ is uncorelated with ζ , ϵ is uncolerated with η , ξ , and δ ,
- δ is uncolerated with ξ , η , and ϵ (Bollen 2014).

The estimated model should be verified in terms of fit and statistical significance. Parameters for assessing the quality of SEM models are not clear, but there is a lot of guidance on this subject (Hermida et al. 2015) (Kaplan 2009) (Konarski 2016).

The basic assumptions of the research model are as follows: the formalization of the intellectual capital of the hospital and the level of information technologies have a positive impact on the effectiveness of the hospital's operations. The following research hypotheses present this in more detail:

H1. The information technology profile has a positive impact on the level of intellectual capital formalization.

H2. The information technology profile has a positive impact on the effectiveness of hospital operations.

H3. The level of formalization of intellectual capital management positively influences the effectiveness of hospital operations.

The research model regards the following theoretical constructs:

- hospital's information and communication technology profile,
- the effectiveness of hospital operations,
- formalization of intellectual capital of hospital.

Each construct is defined using the appropriate variables. Next, the measurement of variables is carried out with the use of selected indicators. These indicators are in the form of questions prepared based on the literature review related to similar surveys and consultations with experts.

For each construct, the following variable and their indicators were chosen:

1. Formalization of intellectual capital:
 - formalization of hospital reputation management,
 - formalization of knowledge management,
 - development of intellectual capital as a strategic goal.
2. The effectiveness of hospital operations:
 - quality of services,
 - availability of services,
 - financial result of operations.
3. Hospital ICT profile:
 - a level of application usage,
 - a level of technology usage,
 - the strategic role of ICT,
 - a level of application integration.

Figure 1 presents the research model and relationship between variables *effOp* (effectiveness of hospital operation), *formInCap* (formalization of intellectual capital) and variable *pIT* (profile of information technology). The variable *pIT* is an exogenous variable and variables *effOp* and *formInCap* are endogenous ones.

The proposed SEM research model is made of three measurement sub-models and one structural sub-model. The first of them defines the relationships between observable variables stratIT, useApp, useTech, degInt and the latent variable pIT which corresponds to the profile of information technology.

The second sub-model concerns the latent effOp variable, which corresponds to the effectiveness of the hospital operation and the related observable variables: qualServ, availServ, finEff. The third sub-model presents the relationship between formInCap and devInCap, formRep and formKnow. Structural sub-model concerns relationships between hidden variables: pIT, effOp and formInCap.

Table 1. Observable and latent variables in the research model

Observable variable		Latent variable
Variable	Symbol	
IT strategy	stratIT	profile of information technology pIT
Use of technology	useTech	
The degree of IT systems integration	degInt	
Use of applications (software)	useApp	
Quality of services	qualServ	effectiveness of hospital activity effOp
Availability of services	availServ	
Financial result of activity	finEff	
Development of intellectual capital	devInCap	formalization of intellectual capital formInCap
Formalization of management of knowledge	formKnow	
Formalization of reputation management	formRep	

Source: author's own elaboration

The figure 1, presented below, shows the relationship between variables effOp (effectiveness of hospital activity), formInCap (formalization of intellectual capital) and variable pIT (profile of information technology).

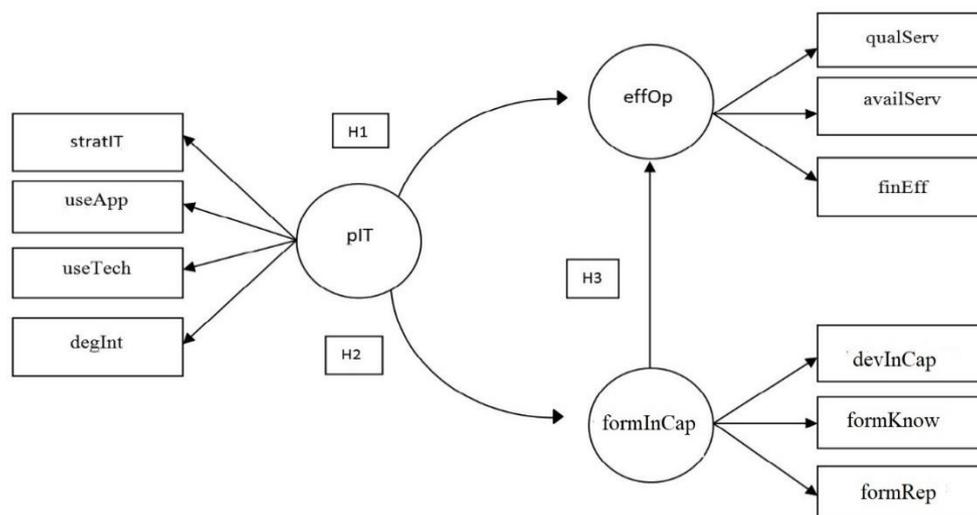


Figure 1. Model of the relationship between variables effOp (effectiveness of hospital activity), formInCap (formalization of intellectual capital) and variable pIT (profile of information technology)

Source: author's own elaboration

Results and discussion

The basic research tool was a questionnaire containing three questions for measuring each observed variable (see Table 1). It was assumed that the variables were of compartmental nature and therefore Likert scale for each question was applied. Randomly selected hospitals based on the Polish Register of Healthcare Centers were selected for the study and 156 questionnaires have been received.

Estimated parameters of the research model are presented in Table 2. The first column contains the variables with the appropriate mutual relationship. In the second column the estimated parameter is placed. The table also contains standard error for evaluation of the parameter, T statistic and probability level, which is lower than the value of significance level assumed for calculations (0.05). Therefore, it can be stated, that the levels of estimated parameters in the research model are statistically significant.

Table 2. Evaluation of selected parameters in the research model

Estimates of model parameters				
	Parameter estimate	Standard error	T statistic	p-value
(pIT)-->[stratIT]	0,571	0,072	7,937	0,000
(pIT)-->[useTech]	0,558	0,073	7,667	0,000
(pIT)-->[degInt]	0,651	0,067	9,651	0,000
(pIT)-->[useApp]	0,676	0,066	10,222	0,000
(effOp)-->[qualServ]	1	-	-	-
(effOp)-->[availServ]	1,535	0,236	6,511	0,000
(effOp)-->[finEff]	1,115	0,151	7,406	0,000
(formInCap)-->[devInCap]	1	-	-	-
(formInCap)-->[formKnow]	0,991	0,199	4,981	0,000
(formInCap)-->[formRep]	0,881	0,180	4,892	0,000
(pIT)-->(formInCap)	0,244	0,075	3,239	0,001
(formInCap)-->(effOp)	0,160	0,067	2,376	0,017
(pIT)-->(effOp)	0,241	0,116	2,069	0,039

Source: author's own calculations with the use of Statistica software

Selected goodness-of-fit indices of the model are shown in Table 3. Parameters exceeding the adopted boundary values are printed in bold and italics.

Table 3. Indices of goodness of fit to the data

Noncentrality-Based Goodness-of-Fit Indices			
	90% lower boundary of the confidence interval	Estimated point	90% upper boundary of the confidence interval
Steiger-Lind RMSEA Index	0,000	0,016	0,062
McDonald's Index of Non-centrality	0,940	0,996	0,999
Population Gamma Index	0,976	0,998	0,999
Adjusted Population Gamma Index	0,958	0,997	0,999

Source: author's own calculations with the use of Statistica software

The Root Mean Square Error of Approximation (RMSEA) and Gamma Index for Population and Adjusted Population Gamma Index reach values that exceed the boundary values of a goodness of fit for the research model.

Conclusion

Taking into account the results of the SEM modeling, it can be concluded, that the relationship between variable pIT, the profile of information technology, and variable formInCap corresponding to the formalization of intellectual capital is statistically significant. The coefficient corresponding to this relationship is equal 0.244. Likewise, the relationship between the variable pIT and the effOp variable is equal 0.241. The parameter defining the relationship between formInCap and effOp, i.e. the impact of the formalization of intellectual capital on the effectiveness of hospital operations is also statistically significant and amounts to 0.160.

To sum up, it can be stated that the formalization of intellectual capital management and the level of information technologies have a positive impact on the effectiveness of Polish hospitals. In the analyzed research model, it was assumed that the pIT variable is an exogenous variable, while the formInCap and effOp variables are endogenous ones. With such kind of variables, it can also be considered that there is a causal relationship between pIT and formInCap and effOp.

The issue of the significance and role of causality in SEM analysis is a source of controversy regarding the use of this statistical model. Opinions on this subject are divided - from extreme opponents to enthusiastic supporters (Konarski 2016, p. 533). Taking into account the above differences of opinion and other limitations of SEM analysis, it should be assumed that the confirmatory nature of this type of models requires a well-established theory related to the studied phenomena.

The relationship between the effectiveness of the hospital activities, the level of development of information technology and the level of development of intellectual capital in Polish hospitals may be an area for future research.

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ALCOHOL DEPENDENCE AND THE RELATIONSHIPS IN THE WORKPLACE

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Abstract: Alcohol dependence is a biopsychosocial problem – it applies to all spheres of human functioning. The impairment of the sphere of social life is clearly shown in the area of professional activity. The consequences of alcoholism may concern various aspects of professional life, including: the quality of the work performed, absence from work, accidents at work, as well as interpersonal relationships. The aim of the article is to present the problem of dependence between selected features of the alcohol dependent person and the quality of relationships in the workplace. Selected mechanisms of relationship disorders and their determinants based on existing theories as well as research examples were analysed. Moreover, the issues of epidemiology and etiology of alcoholism, as well as the psychological mechanisms of its development were presented. The conclusions revealed such features of interpersonal relations in the addicted employees as the fear of judgement which disturbs direct communication, violent and impulsive reactions occurring under the influence of strong tension, disturbed ability to regulate, affect and experience positive emotions, as well as manifestations of frustration and dissatisfaction in contacts with others.

Keywords: addiction, alcohol abuse, interpersonal relationships, work, worker

Introduction

The speed of modern life and work, pressure on high performance and continual improvement results in threats for psychophysical human well-being, often exposing people to risk of seeking help in addictions (Karczewska 2016). Alcohol is a psychoactive substance with high abuse potential which has an effect on the brain and human behaviour (Seligman, Walker, Rosenhan 2003, p. 633). Due to the common social consent for consuming alcohol, this is the most popular substance used for relieving upsetting emotional states (Frąckowiak, Motyka 2015). According to the State Agency for the Prevention of Alcohol-Related Problems, 9.37 litres of alcohol on average was drunk by every Pole in 2016 (PARPA, <http://www.parpa.pl/index.php/badania-i-informacje-statystyczne/statystyki>). Although not every person who consumes alcohol develops alcohol dependence syndrome, the problem of dependence is constantly topical (Seligman, Walker, Rosenhan 2003, p. 633). It is estimated that around 900,000 people in Poland are addicted to alcohol, with 80% being men (Gajewska et al. 2015). Importantly, the problem has serious consequences to functioning of individuals and their environments, and also consequences for the socio-economic areas as alcoholism is a biopsychosocial disease (Frąckowiak, Motyka 2015).

The paper attracts attention to functioning of the addicted person in the workplace. The major focus was on description of the properties and determinants of interpersonal relations of addicted employees.

Background, Methodology of the Research

There are various concepts that explain the problems of alcohol dependence. They point to e.g. genetic determinants, environmental effect, or personal susceptibility. However, these determinants do not have an isolated effect but they interact with each other, thus suggesting polyetiological susceptibility to the disease (Seligman, Walker, Rosenhan 2003, p. 638). It is indicated that genetic factors have ca. 40% to 60% contribution to alcoholism. Within the biological perspective, the concepts also have emerged that suggested changes in neurotransmitter activity and constitutional predisposition and mutual correlation between these variables (Pużyński, Rybakowski, Wciórka 2011, pp. 170-172). Furthermore, many explanatory models rooted in individual paradigms can be distinguished in the area of psychological concepts. According to the psychoanalytic understanding of disturbances, addiction can result from psychosexual development in oral or anal stages and be related to unknowing self-destructive tendencies. Furthermore, behaviourism emphasizes the importance of positive reinforcements which are connected with the effects of alcohol (Cierpiałkowska 2007, pp.170-171). The concepts that relate to the family system and improperly

developed personality are also interesting. The risk of alcohol abuse can result from unstable family environment, the lack of due care and disturbances of relations and marital conflicts. Furthermore, as demonstrated by researchers, certain common features can be found in addicted people, such as emotional immaturity, excessively high expectations towards life, the need for constant praising and approval, feeling of harm and inferiority in the situation of failure, low tolerance of frustration, sense of maladjustment and uncertainty of fulfilment of male or female roles and high level of aggression (Bylica 2010, pp. 28-29).

Becoming dependent on alcohol is a problem with biopsychosocial character as it concerns the holistic dimension of human functioning. The effect of alcohol on human body leads to serious somatic damages and elevates the risk of cancers in throat, oral cavity or larynx, gastric or intestinal catarrh and the risk of damaged liver and pancreas. Alcohol dependence is also conducive to arterial hypertension, infections of the upper respiratory tract, metabolic disturbances, protein deficiencies and changes in activity of the neurotransmitter systems (Cierpialkowska 2000, p.52). Furthermore, with regards to psychological functioning (emotions, cognitive activity, personality), alcoholics can be diagnosed with psychological mechanisms of addiction. As addiction develops, a dysfunctional emotional dynamics is formed i.e. the mechanism of compulsive regulation of emotions, leading to e.g. oriented experiencing the emotions in categories of alcohol thirst, which is becoming a source of positive experiences and the basic means that helps relieve in suffering. With the increased demand for alcohol and negative consequences that result from drinking alcohol, another mechanism develops, distorting the objective reception of reality. Based on the wishful thinking, the alcoholic builds an internal system of illusion and rejections which make it harder for him or her to recognize the damages that result from alcohol abuse and therefore maintains the development of addiction. The structure of personality is also gradually disturbed, leading to disintegration based on a characteristic polarity. On the one hand, the addict experiences "drunk" visions of his or her own power but on the other hand, they are exposed to negative assessments connected with their failures and losses. This mechanism impairs decision-making and ability to properly manage the behaviour (Strelau 2000, pp. 700-705). These characteristic features disturb functioning of the alcoholic leading to problems in various areas of life, including problems in interpersonal relations.

The paper attempts to analyse the problems with interpersonal relations of alcoholics in the area of working environment. The relationships between disturbances that result from the consequences of addiction and certain aspects of social functioning were analysed based on selected results of empirical examinations.

Results

As mentioned before, the problematic use of alcohol leads to a series of negative effects that are risky to human health and quality of social life. There have been numerous studies in the literature which have confirmed these relationships. Below are presented some of them. According to the aim of the paper, they represent the basis for the analysis of functioning of the alcoholic in relations in the professional environment.

One of the problems connected with alcoholism is anxiety disorders. Alcoholics are even ten times more exposed to social phobia compared to non-addicts (Kessler et al. 1997). Examinations in a group of 157 university students (112 women, 45 men) using self-assessment tools confirmed a positive correlation between social anxiety and alcohol problems. This relationship concerned only the aspect of anxiety which is connected with fear for negative assessment (Stewart et al. 2006).

In the context of alcohol dependence, a frequently analysed variable is impulsivity. Correlations between alcoholism and impulsivity can be explained by the biological mechanism of alcohol effect leading to impaired control of behaviour and shortening of time of reaction to stimuli (Bętkowska-Korpała 2013, p. 83). This is confirmed by a comparative study between addicts and healthy people, with higher levels of this variable found in the former group (Zalewska 2009). Furthermore, a study by Magid and Colder emphasized that a direct correlation between impulsivity and problems with alcohol concerned impulsivity only in two areas: difficulties with concentration on assignments and tendencies for rapid responding without taking into consideration consequences in situations of negative emotional experiences (Magid, Colder 2007). It is also worth noting the results of examinations concerning changes in emotional regulation. A cohort study performed in Poland compared a group of

addicts following a therapy and maintaining abstinence with people who returned to addiction. The results of the examination conducted a year after completion of the therapy showed that people in the first group were characterized by higher level of affective regulation, abilities to define goals according to the person's needs and values, greater tendency for positive emotionality and positive reappraisal and seeing the sense of living and abilities to reduce tensions (Bętkowska-Korpała 2011; Bętkowska-Korpała, Shiep 2013).

Discussion

Based on the above cited empirical studies and knowledge concerning clinical characterization of the problem of alcohol dependency, some conclusions can be made with regards to interpersonal relations of addicted employees.

An elevated social anxiety found in the group of people with alcohol problems which is manifested in particular by a fear for a negative assessment can disturb the ability to communicate directly. These employees can be afraid of criticism and consequently give up open communication or distort the communicated information. Furthermore, as emphasized by researchers, people with social anxiety are likely to show tendencies for selective and detailed analysis of both what can happen in a social situation and what has already happened (Clark, Wells 1995). A tendency can be also observed for avoiding difficult situations (e.g. socially demanding situations at work), overly criticizing person's own statements or avoiding visual contact (Hackmann, Surway, Clark 1998). Such characteristics of communication will not be conducive to proper exchange of information in terms of the performed professional tasks and efficient solving the conflicts that emerge in the workplace or other difficult circumstances. Furthermore, the impulsivity characteristic of addicted people can lead to tensions in relations with co-workers and supervisors. They can occur due to the overload caused by the effort needed for suppression of emotions and, on the other hand, due to the disturbed control of behaviour and tendency for rapid reactions to stimuli (Bętkowska-Korpała 2013, p. 83). In a situation of a strong negative emotional excitation, behaviours of an employee with an alcohol problem may be motivated more by the strength of impulses at a moment rather than rational analysis of consequences of their own conduct. This may result in extreme behaviours during relations with the professional environment, such as verbal attacks, raised voice or revenge reactions. Furthermore, these difficulties are strengthened by the mechanism of compulsive emotional regulation, thus being conducive to the situations of dysfunctional relieving tensions and frustration at work. Tendency for exciting positive emotions, which would play a compensatory role with respect to difficulties with relations, is reduced in addicted people and limited mainly to situations connected with consuming alcohol. This can mean, especially with limited tendency for positive reappraisal, frequent manifestations of frustration and dissatisfaction in contacts with co-workers or supervisors.

However, it is worth emphasizing several important limitations to the presented conclusions. The results were derived from the examinations in various groups of people, which can make it difficult to generalize results and make a reliable comparison. The paper discussed only certain variables that can have an effect on the quality of relations in addicted employees. Analysis of a greater number of variables connected with addiction would ensure a more detailed characterization of interpersonal relations of the addicted employee. Furthermore, it is analysis based on a longitudinal study that can unequivocally verify the cause-and-effect correlation between the discussed relationships and explain to which degree alcoholism leads to disturbances in relations and how problematic relations at work stimulate alcohol abuse. Due to the above limitations, the described conclusions should be approached cautiously.

Conclusion

Alcohol dependency always impairs professional functioning. However, it does not always lead to losing jobs, or the job is not lost immediately. As the illness develops, difficulties in the professional area are becoming more and more noticeable and manifest themselves in e.g. reduction in work performance, increased absence, increased risk of accidents and problems in relations with co-workers and supervisors. The latter can be described by indication of such characteristics as fear of being assessed that disturbs direct communication, rapid and impulsive reactions that occur following a

strong tension, disturbed ability to control affect and experiencing positive emotions that elevates the risk of showing frustration and dissatisfaction in contacts with others. A combination of these characteristics can be conducive to both tiny misunderstandings and more serious conflicts at workplace which can consequently impact on the quality of performed professional tasks.

Although a full picture of relations which are created by the addicted employee requires taking into consideration a bigger number of variables, the conclusions are sufficient to postulate important practical implications. Awareness of a specific characterization of functioning of an alcoholic in professional relations should attract attention to problematic behaviour of an employee, motivate for identification of its determinants and taking a specific support intervention. This awareness should oblige not only employers but, in light of the common phenomenon of alcohol abuse, the entire professional and extra-professional environments.

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ETHICS OF BUSINESS IN THE ASPECT OF THE INFLUENCE OF MEDIA ON HEALTH OF CHILDREN IN SCHOOL AGE

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Abstract: Children are now a large proportion of consumers, often having large amounts of money. Although they cannot be independent buyers in a legal sense, they often buy different products both for themselves and for the family. Children also have a huge impact on their caregivers, especially when making purchasing decisions for their needs. Young people's purchases of food products have a huge impact on advertising messages. The aim of the article is to determine the impact on the basis of self-based and literary research and to show that both contractors and media interested in profit do not always act ethically in acquiring young consumers.

Keywords: children, young consumers, media, purchasing decisions

Introduction

Children are more and more actively involved in the commercial decisions of their family - not only in the purchase of products intended for them. The subject of this study are children aged 6 - 13 years. Children under 13 years old, according to the Civil Code, do not have legal capacity, therefore they should not enter into any contracts, including purchases. In practice, children - usually at the instructions of caregivers - often buy consumer goods for the whole family, as well as - usually with the consent of carers - for their own needs. Such a purchase, and therefore a civil-law contract is valid, unless the young consumer has been aggrieved. As the research shows, most of the children at this age make their own purchasing decisions. Media such as television and the Internet have a significant influence on these decisions, and children are a particularly vulnerable recipient of advertising messages for many reasons.

The aim of this study is to indicate on the basis of literature research and own surveys on market conditions for purchases by children aged 6 to 13 years, with particular attention to their health safety. It should be noted that (in the context of media impact) good health condition consists:

- physical health (organic food, diet, nutrition, exercise, elimination of drugs),
- mental health (relax, cope with stress, and a sense of satisfaction with life),
- social health (leisure time, relationships) (Zajac 2016, p. 116).

However, in this study we mainly pay attention to the problem of healthy eating.

Children as consumers and recipients of advertising

Lately marketing specialists have been searching for traditional methods of attracting new customers. There are not many competitive products on the market. That's why the specialists look for other capabilities on the market (Sowier-Kasprzyk 2016, p. 295). Nowadays the concept of CSR is understood as an assumption according to which organisations while carrying out their activity will take into account the interests of the society, environment protection and relations with widely understood stakeholders (Zadros 2016, p. 348).

Almost all food corporations and fast food chains have their own websites with links directly to children and young people. On these websites, the young recipient can find, for example, computer games, puzzles or e-cards, which, of course, always promote the company and its products. Many TV channels that "live from commercials" and are targeted at children and young people not only place appropriate spots in advertising blocks, but often use broadcasting programs produced with the participation of food corporations, where games or cartoon actions relate to a large extent to products these companies.

During the time of Polish transformation the traditional patterns of consumer behaviour were changing due to diffusion of the western cultural patterns and local patterns. The main role in this process played the mass media (Karczewska, Bsoul-Kopowska 2016, p. 307).

In the advertisement, children's relationships with parents cannot be referred to (for example, "loving parents will definitely buy it for you"), but the practice shows that advertisers still use this type of slogans (e.g. an advertising spot of a wafer with slogan: do not you buy it for your child?). It is also forbidden to evoke negative emotions (e.g. scaring children) or it is forbidden to point to features that a given product does not have.

The impact of advertising on children as consumers should be considered in the following aspects:

- advertising of products for children directed to children,
- advertising of products for children directed to adults,
- advertising of adult products targeted at children, where the child is used as a tool of persuasion,
- advertisements for adult products targeted at adults, but which children sometimes watch from adults and affect adult decisions.

The concept of "young consumer" is treated in a contractual way (as in many other studies). There is no explicit, precise and binding definition of a "young consumer" in the literature. This concept can be associated with the equally imprecise concept of "youth", for which, for example, people aged 16-25 may be considered (Wolny 2006, p. 30). However, it should be noted (which is important for this study) that young consumers are also children, i.e. people aged up to 19 (Olejniczuk-Merta 2003, p. 171). In the literature, there is also no precise definition when a person comes out of a child's age. One can only assume that in the legal sense (Civil Code, Art. 12), the person stops to be a child at the age of 13, and young people at the age of 18.

Adults consumers are subject to the influence of advertising, they know what it is, they know its purpose and see that it only creates a certain vision of the world, different from gray reality. They have already made a little immune to this type of message (see Chrzan, 2011), but children are more credulous and vulnerable to advertising messages. Therefore, they most often buy the tastiest and "healthiest" products. They buy themselves and often force parents to buy advertised products. Children do not distinguish the world presented in the advertisement from reality, in their image it is one and the same world, and what's more: they prefer and consider more credible information coming from advertising than for example from parents. Advertisements turn out to be the primary source of information for them, which affects their ideas about the world. Advertisements referring to authorities, the economics of products or their specific "scientifically proven" values influence the child's development as a consumer.

Children make decisions about purchasing products for their own use and participate in the purchase of products for common consumption. Their decisions can often be non-self-supporting, undertaken with the significant involvement of third parties (mainly parents and peers) (Budzanowska-Drzewiecka 2011, p. 444). One of the weakest points of conduct for young clients on the market is obtaining information about products before buying. Along with age, young consumers look for more information, moreover, teenagers, compared to younger children, use more sources of information before purchasing the product, and more often reach for it. It can be assumed that for younger children, personal sources are the most important sources of information, however information from peers and family is confronted with the message contained in the advertisement (compare Budzanowska-Drzewiecka 2011, pp. 447-448).

Advertising and children's health problems

In our country, a number of tests have been carried out in recent years assessing the occurrence of overweight and obesity of children. Against the background of other European countries, the prevalence of overweight and obesity of children in Poland is at an average level. The study found that as many as 71.4% of food advertised on Polish television channels were high fat and carbohydrate products, 14.3% were sweet drinks, and only 14.3% of advertised products could be described as "healthy" (mineral water, yoghurts). This is undoubtedly the reason for the increase in the consumption of sweets and sweetened beverages by children and adolescents, as well as the increase in eating meals in fast food bars at the expense of "home" meals. Because demand generates supply, the assortment of school food sold in stores are mainly chips, buns, bars, sweet drinks, etc. (Mazur, Radziewicz 2013, p. 3).

Food ads can contribute to the development of childhood obesity in several ways:

- food advertising in the media can teach children unhealthy eating habits,
- direct promotion of food products in the media encourages children to buy and consume high-calorie foods of low nutritional value,
- children eat excessive amounts of high-calorie snacks while watching TV or in front of a computer monitor,
- energy expenditure while watching TV is smaller than during normal physical activity,
- time spent on watching TV or in front of the computer screen reduces the period that can be spent on physical activity (see: Chrzan, Sowier 2009),
- children spending time in front of the TV or computer consume less energy and at the same time often eat excessive amounts of high-calorie snacks.

Nutrition companies influence the nutritional behaviour of young consumers through various marketing techniques and channels. Practically speaking, this influence cannot be avoided. Advertising of food products targeted at young recipients can be found at every step: on TV, on the Internet, on billboards, posters, newspapers, etc. A young consumer meets them at home, at school, in stores, at playgrounds or at various events. Producers benefiting from the development of media increasingly involved in the lives of all consumers (especially those young) use increasingly sophisticated "marketing" techniques such as viral marketing, product placement or ambient advertising. Participation in the advertising of food products of famous people from the world of sports, film and fairy tales gives credibility in the eyes of the child transmitted information and enhances the effectiveness of advertising. More and more often, you can meet marketing activities of food companies addressed to young consumers directly in schools. Due to constant financial problems, school authorities willingly use sponsorship of these companies by providing them with advertising space on bulletin boards, gyms or shirts of school teams.

Methodology

The survey was conducted using a specially designed questionnaire. The aim of the study was to determine the impact of children on purchases of products intended for them, and influence the needs of peer groups, as well as Internet and television advertising. This report uses only part of the results obtained in the study. The survey was conducted in November and December 2016. The study covered just under 500 families (children) residing mainly in the north-western part of Małopolska (around Częstochowa, Zawiercie, and Sosnowiec). After verifying the completed questionnaires, the study covered 422 school-age children:

- 6-7 years - 134 children - 31% of the studied group,
- 8 - 9 years - 91 children - 22% of the studied group,
- 10 - 11 years - 92 children - 22% of the studied group,
- 12 - 13 years - 105 children - 25% of the studied group.

Results: Purchases of food products by children according to own research

In the research sample under the parents' declarations, there are no children who do not watch TV at all. However, 82% of children spend over an hour in front of the TV (15% over 3 hours). In turn, only 8% of children (all aged up to 9) do not use the Internet, 26% use Internet access for an hour, 56% of children spend 1 to 3 hours in front of a computer with internet access, and almost 10% of children over 3 hours (more than half of the latter is aged 12-13).

When watching TV or using the Internet, children meet advertisements addressed both to adults and children.

According to parents' declarations as far as advertising is concerned, more than half (59%) of the respondents watch and remember their content, every fourth child (23%) watches such advertisements without special interest, while every fifth child (18%) does not show any interest at all ads. However, children are quite willing to watch (43%) adult advertisements, and some of them (19%) do so even with great commitment. However, according to the parents, a significant proportion of their children (38%) do not show any interest in adult advertising.

With regard to the influence of various factors on purchasing decisions made by children, the study pointed to the most important role of parenting education. In 187 cases (44%), parents declare that their child's choices are dictated by the system of values instilled in them. However, for the most part, purchase decisions result from the influence of the environment (other children) and advertising.

As the research shows, children generally get permission from their parents to buy food themselves (sandwiches, snacks, sweets). Nearly every 4th child (23%) always have the right to make such purchases themselves, and much more than half of them (58%) have permission to make such purchases with limited restrictions. A small proportion of children (15%) do not have the opportunity to buy these products themselves, and only a small percentage of children (3%) have an absolute ban in this regard. The age or sex of the child and the material status of the family are not affected by the restriction or permission to make purchases independently.

Parents believe that ads have a significant impact on the shopping of food products made by their children. Every seventh (15%) of respondents state that their child makes purchases that are heavily influenced by advertising. However, almost half (48%) of respondents declare the average impact of advertising on the type of products purchased by their child. On the other hand, every fourth parent (27%) thinks that advertising has a small impact on these purchases. Only every twentieth of respondents (5%) declare no impact of advertising on their child's purchasing decisions. The same number of parents have no opinion on this matter.

According to the parents, the children's peers have more influence on what their children buy. Almost every third respondent (29%) states that colleagues have a very big impact in this respect. In turn, every second parent (48%) declares the average influence of colleagues on the type of food purchased by his child. Small influence of their peers on what the child buys is declared by every sixth (17%) of respondents. Only three respondents (> 1%) stated that peers do not have any influence on the child in this respect. However, every twenty (5%) of the respondents did not express their opinion in this matter.

Discussion and Conclusion

Cyberspace plays an invaluable role in creating marketing activities. By using it primarily as a marketing and sales communication channel, enterprises can increase the range of their activities, promote and offer their goods around the world, use more effective and less expensive Internet marketing instruments. Through the use of the network, enterprises can systematically collect information about customers, process it at any time, update it, and consequently, more precisely target their marketing mix activities, reaching customers who want to contact and dialogue with the company. Thanks to the achievements of mobile technology, you can reach interested parties anytime and anywhere, regardless of whether at a given time he is at work, school, home or shop.

Advertising spots are inculcatingly insistent on young recipients that the advertised products are the best for them. As a result of the impact of advertising, children should buy products themselves and buy them to encourage parents for purchasing. Considering the peer context, the advertisement emphasizes that the product is on the top that a child who does not have this product must feel worse than other children. As a result, the child is often not happy with what their parents buy or cook for them. Children want to have what is offered on the Internet or television.

It turns out that as much as 80% pre-school children ask their parents to buy advertised products (see Zwierzchowska, Umiński 2009, pp. 48-51). Only when they grow up, young consumers develop awareness of the existence of different sources of information and the ability to use them in a more appropriate way. Experience and better cognitive skills help children develop a critical attitude towards advertising, they enable understanding of advertising tactics and manipulation, because they learn to compare the image with a real product. In societies where ads are part of everyday experience, signs of distrust of them are quite common among children as early as the age of 10 (Oczachowska 2011, p. 523). On the other hand, when they are becoming older, they grow preferences for specific sources of information that peers are and the parents' opinions are minimized (see Moschis, Moore 1979, pp. 101-112).

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MEDIATION IN COLLECTIVE DISPUTES IN POLAND: HOW AND WHY CAN IT BE APPLIED IN BRAZIL?

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Abstract: Mediation is an extrajudicial method of conflict resolution in which a third person acts as a facilitator of interaction and dialogue between the parties. Thus, it is a method of alternative dispute resolution (ADR) available to parties. In Poland, it is possible to apply the mediation in collective labour conflicts, but not in Brazil. This paper shows how the mediation is performed in Poland and suggests that this extrajudicial method of conflict resolution could also be applied in labour disputes in Brazil.

Keywords: alternative dispute resolution, collective disputes, labour law, mediation

Introduction

The human being is spontaneously grouped in society for life. Such fact is positive since it makes social life easier. However, the occurrence of social conflicts is inevitable. This word (conflict) comes from the Latin words *conflictus* or *confligere*. One of its meanings used in legal language indicates clash and opposition (Marx, Morita 2000, p.69).

The mediation has been applied to solve many different disputes, including labor conflicts. The mediation is a technical activity performed by a third party, which is chosen or accepted by the interested parties. Its role is to listen to them and provide guidance to allow the involved to prevent or resolve conflicts consensually.

There is an increasing number of labor conflicts, particularly in times of economic and social crisis, when the existing unequal distribution of wealth and power in the capitalist system is aggravated. The labor law disputes are divided into individual and collective conflicts. The first one involves the employee and employer disputing about a labor contract, while the second one is about groups of workers and employers, within the scope of the establishment or company, or even of the category.

In Poland, it is possible to apply mediation in collective labor disputes, but the same is not true in Brazil. Thus, this paper shows how the mediation is performed in Poland and suggests that this extrajudicial method of conflict resolution can also be applied in collective labor disputes law in Brazil.

Mediation: definition and procedure

The occurrence of social conflicts is inevitable, because the people, naturally, is grouped in society. The people are endowed with individual characteristics and interests different. This is enough to make the conflicts appears. So the mediation is used to solve the conflicts.

Mediation is a method of alternative dispute resolution (ADR). It is a process of direct negotiation between parties and should be a promising instrument to prevent and resolve conflicts in a more constructive way. Williams, Robert and Burden (1997) state that “mediation is to find ways of helping the other to learn. Particularly, this involves helping learners to move through the next layer of knowledge or understanding” (Cichobłaziński 2013, p. 179).

The mediation is recommendable in a context of wicked problems (Rittel & Webber, 1973, p. 163) and when parties disagree about goals. With the help of the mediator, the parties who are involved in conflict work out agreements on the issues aforementioned. It is combined with many technical solutions to solve the conflicts (Elkouri & Elkouri, 2017, p. 58).

The procedure of mediation can be explained into 13 phases that were represented below from letter A to M (Caser & others, 2017, p. 114)- Figure 1.

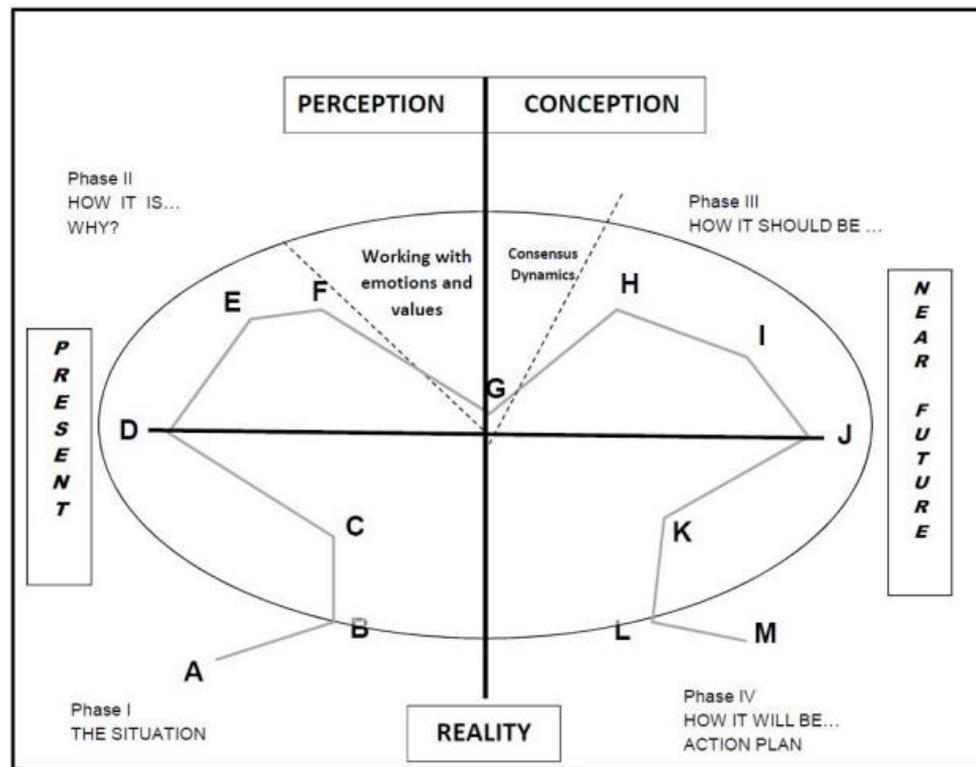


Figure 1. The Process of Mediation

Source: Caser & others, 2017, p. 114

According to the authors (Caser & others, 2017, p.114), “A” is the Mediator’s preparation before the ADR, like a stakeholder analysis. It is a preliminary process design and initial contact with the disputing parties, for instance; “B” shows the mediation agreement (ground rules and behavioral guidelines); “C” corresponds to the issues and the schedule of mediation sessions; and “D” is the mediator’s attitude, which ranges from leadership to assistance.

It is necessary to define each party’s vision, which can be common, complementary, and conflicting. This process occurs at “E”, while “F” shows the work with parties’ emotions and values, because identifying feelings and venting emotions is very important in mediation. This also appears at “G”. The consensus dynamics, like the approval of mutual comprehension, is represented at “H” point. The process of generating and assessing alternatives for settlement are shown at “I” and “J”, respectively.

The success of the mediation is at “K”. It is the final bargaining (consensual formula, substantial agreement, package settlements). The result of this process is a final agreement, which are indicated at “L” and “M”. The procedure presented above also demonstrates the advantages of mediation in power imbalanced situations. So, for many reasons, mediation is indicated to help solve conflicts, including labor disputes.

In the next section, there are some reasons why mediation should be applied in labor collective disputes in Brazil. Then, in section 4, there are some explanations about mediation in Poland.

Collective disputes in Brazil and Mediation

The number of collective disputes in Brazil has been changing since 1998. In this specific year, the Labor Court (TST) received 1.265 cases to judge, but only 937 had a decision from that Court, about 74%. Besides, in 2017, TST received 640 cases and judged 627 (97%). More details on this topic are shown below:

Table 1. Number of cases received by Labor Court in Brazil

Year	Cases Received	Cases Judged		
		Agreements	Others Decisions	Total
1998	1.265	144	779	937
1999	1.120	158	649	815
2000	1.007	158	561	719
2001	1.186	133	640	773
2002	799	91	415	506
2003	1.042	123	551	674
2004	1.089	183	614	797
2005	714	143	575	718
2006	749	144	428	572
2007	986	161	642	803
2008	995	177	648	825
2009	1.013	211	710	921
2010	946	236	662	898
2011	1.060	142	729	871
2012	1.055	89	719	810
2013	1.071	114	264	378
2014	1.100	182	288	470
2015	711	241	475	716
2016	803	213	703	916
2017	640	189	438	627

Source: Brazil. Tribunal Regional do Trabalho (TST). *Dissídios Coletivos na JT. Brasília, Distrito Federal, April 2018.* <<http://www.tst.jus.br/web/estatistica/jt/dissidios-coletivos>>. (Access: 3.04.2018)

It is possible to observe in table 1 that the number of cases received by TST (Tribunal Superior do Trabalho), the Labor Court, went down in the period from 1998 to 2017. The same happened with the agreements. But the number of cases that the Labor Court has to judge remains high. In 1988, TST judged 61% of the received cases in that year, and in 2017 this number increased to 68%.

When Labor Court judges a case, it is probably not appropriate to the parties, because, besides other reasons, in a trial process, a lot of time and money is involved. Not to mention that the person that will decide the dispute, the judge, is not chosen by the parties. Perhaps, applying mediation in collective disputes is better to the parties involved. In Poland, for example, this application has been performed successfully.

However, in Brazil, it is not possible to apply the mediation in labor collective conflicts. Mediation Act in that country is the Federal Law number 13.140 of June 26, 2015, which regulates mediation between individuals as a means of settling disputes and on the self-determination of conflicts within the public administration. According to the article 42 from that Act (Brazil, Congresso Nacional, 2018, online), mediation in labor relations will be regulated by another law.

But this law that allows to apply mediation in labor collective disputes does not exist. This ADR has been used to solve individual conflicts, including the ones about labor law, although the TST prohibits mediation in disputes about collective rights.

The institution of a collective dispute in Polish labor law

General idea of collective labor law is the collective representation of employee's interests. This is mainly due to the fact that the workplace is a social system and many aspects of its functioning are of a group nature. Second of all, employer's bargaining power in relation to an individual employee is usually much stronger. This imbalance is reduced by a collective representation of employees interests, and labor unions are entitled to do that.

At the beginning it should be emphasized that the institution of a collective dispute has a very strong legitimacy in Polish legislation as it is mentioned in the constitution.' The Constitution of the Republic of Poland of April 2, 1997 directly refers to negotiations with the participation of a labor union organization. Based on the language interpretation of the art. 59 par. 3 of the Constitution of the Republic of Poland, labor unions and employers along with their organizations have the right to participate in the resolution of a collective dispute during negotiations. (...) Article 59, paragraph 2 of

the Constitution of the Republic of Poland refers to the concept of a collective dispute. Unlike in the case of collective agreements and other agreements, it does not specify that labor unions, employers and their organizations have the right to initiate and conduct collective disputes, but they have only the right to negotiate, <in particular to resolve collective disputes>.' (Jarota 2014, p. 52) A collective dispute therefore serves to ensure that the process of establishing interests between the most important actors of industrial relations in a market economy proceeds as civilly as possible (Cichobłaziński 2016).

Włodzimierz Broński and Maciej Jarota provide one of the simpler definitions of a collective dispute: '(...) a collective dispute is a conflict between employees and the employer.' (Broński and Jarota 2015, p. 34) It should be emphasized what has been mentioned above, that in these conflicts employees can be represented by labor unions. Subject of a dispute is another worth-discussing issue. It is defined very generally. 'On the basis of the collective dispute resolution law in Poland, the subject of a collective dispute may be the employee's interests in terms of working conditions and the content of employment relations, not only the circumstances of the work, but also in a broader sense - all factors determining directly or indirectly the content of the employment relationship.' (Broński and Jarota 2015, p. 35) The Act states that the subject of the dispute might be the as follows: working conditions, conditions of wages or social benefits as well as labor union rights and freedoms of employees or other groups (who have the right to form labor unions).

Discussion

According to the Act on resolution of collective disputes, such a dispute has the following stages:

1. Submission of a demands list by the labor unions to the employer. These requests may only concern issues listed by law, such as: working and pay conditions, social benefits and labor union rights and freedoms. The dynamics of the conflict are adjusted by the regulation allowing only the employee side to initiate a dispute, while the employer does not have such a power. Therefore an initiative in a collective dispute always belongs to employees, and the role and position of an employer is always defensive.
2. Employer's response, which determines the further course of the dispute. It can be: positive - all requests have been met, negative - at least one request has not been met.
3. If the employer's response is negative, a collective dispute begins in the sense defined by the Act and the employer is obliged to report it to a District Labor Inspectorate.
4. Negotiations - employer and labor unions talks aimed at resolving disputes. It should be emphasized that 'the employer is obliged to immediately make negotiations to conclude an agreement. [...] The negotiations time has no legal regulation. However, it can be assumed that collective negotiations should be carried out for as long as there is a chance of reaching an agreement.'
5. Mediation - if the negotiations bring a solution to the conflict, the collective dispute ends. If not - mediations take place. They are a separate institution and consist of several phases. Their type and number depends on a path chosen by the parties to the dispute, because the Act leaves them a great liberty in this area.
6. If mediation does not bring a solution, the parties may request for a settlement in the Board of Social Arbitration. It is, however, a weak institution, because its decisions are binding only if the parties agree to it and for this reason they seldom use this institution. Strike is another solution. But in this case, an additional criterion must be met, namely a referendum. It is valid only if at least half of employees take part and the majority votes in favor of strike. (Cichobłaziński 2010, 2017 and Lankašová 2017)

To sum up, mediation in Polish legal system has an important place in the collective dispute resolution procedure, because it allows the use of all methods of resolving conflicts, before labor unions go to strike - the most severe form of pursuing their interests.

Conclusion

The mediation is a method to solve disputes. It involves an impartial and neutral person, the mediator, facilitating the dialogue between the involved parties in conflict. It is a process to help parties find a mutually satisfactory agreement. The mediator is chosen or accepted by the parties and helps them to prevent or resolve conflicts in a consensual way. The mediation has been used in many

different disputes in the world, including labor conflicts. In Poland, that institute has been applied in collective disputes about employment rights, among other cases.

In Brazil, mediation is applied to solve demands in the field of individual labor rights. However, this ADR is not used in collective disputes about labor law in that country, because Federal Law number 13.140 states that mediation in collective labor relations should be regulated by another law, but this Act does not exist yet. It is considered that the fact that Brazilian law does not allow the application of mediation in collective labor disputes is considered as not so good. In that country, Labor Court had to judge 61% of the received cases in 1988 and 68% in 2017, which represents a higher number.

Mediation is private and generally much less expensive than a trial dispute. The mediation helps the parties in conflict to solve the dispute in a more constructive way. If Brazil were allowed to use mediation in such cases, the number of agreements should probably be higher and the government would spend less money to solve that kind of demand.

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IDENTIFYING SIMILARITIES AND DIFFERENCES OF OPINION AMONG THE YOUNG CONSUMERS IN THE FIELD OF TOURISM – A MULTINATIONAL APPROACH

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Abstract: After conducting a questionnaire among a group of 391 people aged 18 to 34 from Albania, Macedonia, Poland, Romania and Slovakia, we examined the opinions of some particularities regarding the demands of the consumer in the touristic field (selection criteria for destination, quantitative or qualitative aspects, and sources of information). Globalization tends to cover an ever-larger geographical area and influences the mentality of the young respondents. Thus, we observed many similitudes in their opinions, irrespective of the country of origin. Still, even in these conditions, when making direct comparisons between the groups determined by the country of origin, we also observed multiple differences regarding the intentions or the criteria that lead them to select their destinations, or the type of tourism they practice. The paper indicates the questions making up the questionnaire and for each one, the existence or lack of existence of differences between the answers given by respondents.

Keywords: decision, destination, tourism, young people

Introduction

Nowadays, travelling for touristic purposes through some European countries, starting from Poland and ending up in Albania, one will observe similarities in the touristic offers as well as in the mentality of the participants in the touristic act. The general picture is very different from the images offered by a similar experience one could have had more than two decades ago. There are several explanations why this may be the case, but the determining factor is globalization, which has become more and more evident with the recent political and socio-economic changes, and the common policies in tourism, respectively (Ciolac 2015, p. 316-319; Kirovska 2011, p. 69; Richards 2007; Petroman I., 2014, p. 325-329).

The aim of the study is to identify, through direct comparison, if there are similitudes and differences of opinion on certain general consumer requests in the field of tourism. The survey was made in the period from 22th February 2016 to 29th March 2017. The respondents were from Albania, Macedonia, Poland, Romania and Slovakia. There were 391 respondents, aged between 18 and 34. After the outliers values, the values outside the set time interval and the unfit answers (where not all gaps were filled in or they were filled in incorrectly) were eliminated, 377 valid answers were left, as follows: 81 from Albania, 31 from Macedonia, 119 from Poland, 98 from Romania and 48 from Slovakia.

Review of literature

Choosing a holiday destination is an important decision that is based on previous experience and serious information. (Toader i in. 2014, p. 140-143; Sîrbu i in. 2015, p. 823-830). When they choose the destination, tourists are drawn to one or more characteristics of that specific place (anthropic and natural attractions, accommodation, climate, costs, local culture, gastronomy, events, entertainment, transport connections, landscape). Usually, the attractiveness of a tourist destination is determined by a number of factors (accessibility, cost of visiting, sights, tourist facilities, policymakers, the image and promotion, destination management) (Petroman, Petroman 2014, p. 13-20; Sîrbu i in. 2016, p. 57-62).

There are many factors that influence tourists in choosing a place to visit. It may have been recommended by friends or relatives or even by a travel agency advertising special offers or cheap deals; tourists might have read an article in a magazine or newspaper or might have found information about it on the internet or on TV. It might be a world renowned must-see destination, or a geographically close destination, or a movie might have been made in that place. Out of all these possibilities, the main decision-making factor is the recommendation of friends or relatives, followed by world renowned must-see destination and information on the web (abouttourism.wordpress.com 2011).

The methods of analysis based on direct comparison of various characteristics of E.U. or non E.U. states are a current topic that is permanently in the attention of researchers from multiple international public institutions. Basically, the conclusions offered by such studies can bring concrete information on the interstate differences at various levels: economic, technical, social, cultural levels, and even regarding mentality; the scale of differences can indicate the exact position of each state at a certain moment, as well as the path to follow for the remediation of some negative aspects (Bielik i in. 2012, p. 168-178; Salet, Kreukels 2003; Leslie, Russell 2016, p. 1397-1407; Rujescu i in. 2017, p. 101-106). Some states have succeeded in understanding these differences and focus on eliminating such gaps. However, international statistics show that there are still a series of differences, even major ones (europa.eu 2017). Even when following states with a similar past or a very close geographic position, one could notice that different development policies adopted in the course of time have resulted in certain particularities that make cross-border cooperation difficult to achieve. (Turnock 2002, p. 19-40). This creates impediments particularly in the tourism industry, where partnerships and common development policies are needed. (Bramwell, Lane 2000).

Methodology of the research

Presentation of the questionnaire

The survey was realized using the application provided by Google Docs and in order to complete it the young people had to access the following link: https://docs.google.com/forms/d/e/1FAIpQLSe_bqwx4rrpmJXzrz4LdYc1UAiNMDfLwzA18YP5U8Ufc-mlNA/viewform. The survey was made using the internet. The questionnaire has 17 questions divided in two sections (general information, factors influencing the choice of tourist destinations). The first part of the questionnaire contains the factual questions; the answers to these questions offer information about gender, age, the highest educational level graduated income level, occupation, the estimative budget for holiday in 2017, and the country of participants (I.1.-I.7). The second part of the questionnaire contains 10 questions which are designed to obtain information about what type of tourist destinations young people prefer, how many times a year young people go on holiday, how many days they spend on holiday, how far away from home they travel, how important different sources of information about tourist destinations are for them, different factors or categories of tourist destinations. The 10 questions from this section are closed questions with a single correct answer (II.1, II.2, II.4, II.5, II.7), closed question with multiple answers (II.3) open questions (II.10) and evaluation scale (II.6, II.8, II.9). Not all answers to the questions in the questionnaire were used in the discussion part; some of these are highly formal and indicate particular aspects, as opposed to general ones. The detailed expression of the questions used is to be found in the Results and discussion section, together with the interpretation of the answers.

Statistical method

The elimination of the outliers was made for the data referring to the indicated budget. The differences between groups were highlighted by parametric and non-parametric tests, through the use of SPSS. The study of the normality of the distribution of data series was made by using Kolmogorov-Smirnov tests and Shapiro-Wilk tests, respectively. The differences between series were evaluated through the use of Kruskal Wallis Test, by using the SPSS. More exactly, it will be tested the research hypothesis: the opinions of young people do not differ, regardless of the country of origin. The graphical representations were also made with SPSS.

Results and discussions

Assessing normality of distribution in the answers we found that, more often than not, it differs from the normal distribution. The reason is not easy to find. Sometimes, skewness or kurtosis coefficients indicated deviation from Gauss distribution, which may be due to a tendency to exaggerate the use of answers that got extreme scores. This aspect determined the choice of Kruskal Wallis Test for the study of differences between groups.

Kruskal Wallis Test was applied to items II.1.-II.5, which indicate the number of vacations per year, how long people stay on vacation, how far from home they travel, to what type of location and what options they have regarding costs. The questions asked were 'II.1. How often do you go on vacation during a year?', 'II.3. What type of tourist destination do you prefer when you go on holiday?', 'II.4. Which tourist destinations do you prefer when you go on holiday?', 'II.5. In comparison with your residence area, which tourist destinations do you prefer when you go on holiday?' The answers tourists from different countries gave to the above-mentioned questions differed significantly ($p_{II.1}=0.006$, $p_{II.3}<0.001$, $p_{II.4}=0.036$, $p_{II.5}<0.001$), which indicates the fact that tourists behave differently in regards to the aspects indicated by the four questions.

The mean rank is a value which indicates the order in a classification of the scores given by the respondents. For item II.1, the maximum value of this indicator was obtained in Romania and the minimum was obtained by Macedonia. For item II.3, Slovakia obtained the maximum mean rank value, while Poland presented the minimum value of the same indicator. For II.4, Poland has the maximum value and Slovakia the minimum. For item II.5, Romania is in the first position and Macedonia ranks last.

Question 'II.2. How many days do you spend on holiday?' was the only one where the tourists' answers were similar irrespective of the country of origin ($p=0.09$). In addition to this, we observed that most young people spend between 4 and 7 days on vacation (55%). 24.6% have between 8 and 14 vacation days, 13.79% spend between 1 and 3 days on vacation and those people who spend between 15 and 30 days on holiday account for 6.3% of tourists.

Figure 1 is an Error Bar diagram that presents the distribution of the answers for items II.1.-5 in different countries (**II.1**- once=1, twice=2, three (more)=3, **II.2** - 1-3 days=0, 4-7 days=1, 8-14 days=2, 15-30 days=3, **II.3**- domestic=0, external=1, **II.4**- cheap=0, luxury=1, **II.5**- (0.50)=0, (51,100)=1, >100=2).

In what follows we will present the discussions for the set of questions II.6.1.-4, referring to the importance of the categories of tourist destinations when choosing a tourist destination. The answers were processed with the Kruskal Wallis Test. Concerning the question 'II.6.1 How important are for you, when you choose a tourist destination, the following categories of tourist destinations? [heritage and cultural destinations (places known for history, cultural heritage)]', there were significant differences for the groups under analysis. The potential tourists from different states gave significantly different answers, statistically speaking ($p=0.004$). Thus, it is to be understood that tourists from certain states have different opinions from others about the importance of choosing a tourist destination taking into consideration the historical or cultural aspects or other similar aspects.

For the question 'II.6.2 How important are for you, when you choose a tourist destination, the following categories of tourist destinations? [specially built tourist destinations (theme parks, resorts, camps)]', the answers of tourists from all countries under analysis were similar ($p=0.963$). More exactly, there are no significant differences between groups. In other words, wherever the tourists might come from, they do not have different opinions regarding the choice of destination taking into consideration the tourist destinations built especially for this purpose.

The answers for question 'II.6.3 How important are for you, when you choose a tourist destination, the following categories of tourist destinations? [cities / places known for memorial houses, cathedrals, art galleries, museums, theaters, parks]', indicate significant differences between groups. As it was expected (due to some similarities with question II.6.1), the conclusions are similar: the differences between groups are statistically significant ($p=0.004$). Tourists from different states have different interests linked to the importance of choosing the tourist destination indicated by the fame of the place (in what its cultural potential is concerned).

After analyzing the opinions on choosing a tourist destination in accordance to the particularities of the area, we found that question ‘II.6.4 How important are for you, when you choose a tourist destination, the following categories of tourist destinations? [coastal areas (known for sandy beaches, cliffs, exp. Black Sea, Aegean, Mediterranean, Baltic etc.)]’, drew similar answers. There were no statistically significant differences ($p=0.116$), which means that, irrespective of the country of origin, tourists do not have different opinions.

In the same way, when studying the interest for rural areas and their particularities, shown in the answers to the question ‘II.6.5 How important are for you, when you choose a tourist destination, the following categories of tourist destinations? [rural areas (known for green areas, clean air)]’, no significant differences were observed between groups ($p=0.759$).

For item II.6.1, Albania is on the first place in what the mean rank value is concerned, while Poland is on the last place. For item II.6.3, the highest value of the mean rank was found in Albania, while the lowest appeared in Macedonia.

Figure 2 presents the Boxplot diagram, without outliers, of the distribution of the values for items II.6 in every country.

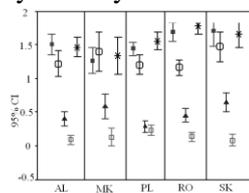


Figure 1. Error Bar diagram presenting the distribution of scores for items II.1--II.5

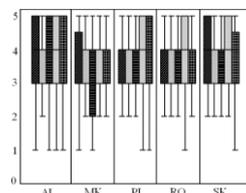


Figure 2. The BoxPlot Diagram for the distribution of scores for items II.6

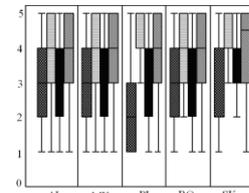


Figure 3. The BoxPlot Diagram for the distribution of the scores for items II.8

Source: own study

For the set of questions II.8.1--5, referring to the importance of the source of information when having the intention to leave on vacation, we also applied the Kruskal Wallis Test and the interpretations are presented below.

For answers to ‘II.8.1 How important are for you following information sources when you intend to go on vacation? [travel agencies]’, there are statistically significant differences ($p=0.009$) between the groups. Thus, tourists from some states believe it is more important for the information to come from a travel agency. For the cases when the sources of information are friends or family, specialized publications or the internet, respectively, tourists gave similar answers. There were no significantly different answers to these questions between groups. More exactly, for ‘II.8.2 How important are for you the following information sources when you intend to go on vacation? [friends / family]’, we obtained the value $p=0.487$. For ‘II.8.3 How important are for you the following information sources when you intend to go on vacation? [specialized publication]’, the value is $p=0.175$. For question ‘II.8.4 How important are for you the following information sources when you intend to go on vacation? [internet]’, the statistical testing indicates $p=0.139$, so the acceptance of the null hypothesis.

The mean rank value for item II.8.1, is maximum for Macedonia and minimal for Poland.

Similarly, figure 3 shows the distribution of the scores for II.8 in the different countries under analysis.

The results below are resulted from the application of the Kruskal Wallis Test for the importance of certain factors for choosing a tourist destination.

The answers to question ‘II.9.1 How important are for you the following factors when you choose a tourist destination? [friends’ or relatives’ recommendation]’ did not present significant differences between countries, $p=0.399$.

Also, for ‘II.9.2 How important are for you the following factors when you choose a tourist destination? [world renowned must-see destination]’, there are no significant differences between the answers given by tourists from different states, $p=0.357$.

In the same way, the answers regarding the information obtained from the internet did not present significant differences between answers ($p=0.155$). This conclusion was drawn after analyzing the question ‘How important are for you the following factors when you choose a tourist destination? [information on the web]’.

For question ‘II.9.4 How important are for you the following factors when you choose a tourist destination? [cheap deal / special offer]’, the answers do not present significant differences, $p=0.998$.

Similarly, ‘II.9.5 How important are for you the following factors when you choose a tourist destination? [geographically close destination]’ did not generate a test value ($p=0.376$) that would indicate significant differences in the opinions of tourists from the analyzed states.

However, we did notice significant differences among answers to the question ‘II.9.6 How important are for you the following factors when you choose a tourist destination? [travel agency recommendations]’, with $p=0.029$.

For item ‘II.9.7 How important are for you the following factors when you choose a tourist destination? [article in a magazine / newspaper]’, there are no significant differences between answers, $p=0.144$.

The same for ‘II.9.8 How important are for you the following factors when you choose a tourist destination? [movie made in the country]’, there are no significant differences between answers, $p=0.051$.

Also, question ‘II.9.9 How important are for you the following factors when you choose a tourist destination? [appealing advertising on it]’ did not draw significantly different answers, $p=0.225$.

Nevertheless, there were significant differences in the answers to II.9.10 ‘How important are for you the following factors when you choose a tourist destination? [heard about in the TV news]’, the certainty value of the test being $p=0.007$.

Much in the same way, significant differences were found in the answers to ‘II.9.11 How important are for you the following factors when you choose a tourist destination? [touristic infrastructure]’, indicated by the value $p=0.003$.

Moreover, to item ‘II.9.12 How important are for you the following factors when you choose a tourist destination? [accessibility]’, tourists answered differently depending on their country of origin. This means that there are significant differences among the answers of tourists in accordance to what countries they come from, and $p=0.009$.

For the last three questions, tourists gave similar answers, irrespective of the country of origin. For question ‘II.9.13 How important are for you the following factors when you choose a tourist destination? [support services]’, there are no significant differences among the group answers, $p=0.053$. Item ‘II.9.14 How important are for you the following factors when you choose a tourist destination? [ancient flavor of the place]’, did not draw significantly different answers, $p=0.556$.

In the same way, for ‘II.9.15 How important are for you the following factors when you choose a tourist destination? [cultural attributes]’, there are no significant differences among the answers given by the groups under analysis, $p=0.054$.

The highest mean rank value for item II.9.6 was obtained for Macedonia and the lowest for Poland. For II.9.10, Macedonia has the maximum value, while Slovakia has the minimum value. For II.9.11, Macedonia shows the maximum value and Poland the minimum. For II.9.12, the mean rank is maximum for Romania and minimum for Poland. Figure 4 presents two Boxplot diagrams, without outlier values, which show the distribution of the scores for items II.9 in different countries.

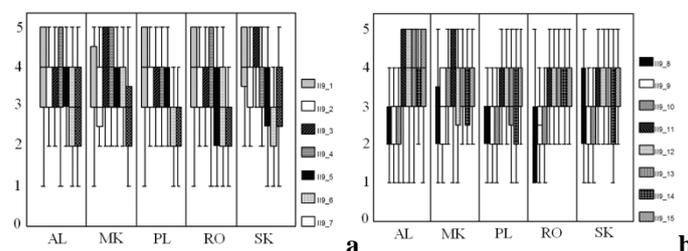


Figure 4. BoxPlot diagram of the score distribution for items II.9.1-7 (a), II.9.8-15 (b), in different countries

Source: own study

Conclusion

The respondents' behaviour in choosing tourist destinations is different in certain aspects: the frequency of vacations in the course of one year, the type of tourist destination, the distance between home and the tourist destination, the importance of the category of tourist destination. At the same time, there are no significant differences in the behaviour of the young concerning the duration of the vacation and the importance of the category of tourist destination.

As for the sources of information that young people tap into when choosing a tourist destination, only in some countries are travel agencies considered to be important sources of information.

Most young people, irrespective of their country of origin, have the same behaviour when taking into consideration the information offered by family, friends, specialized publications or the internet.

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COOPERATION BETWEEN UNIVERSITIES AND SOCIO-ECONOMIC ENVIRONMENT

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Abstract: The authors of this article discuss cooperation between universities and socio-economic environment institutions by giving examples of Polish state technical universities. The quality of this cooperation exerts influence on adapting curricula, courses being offered, as well as scientific, academic, and research activity of the university to the current market needs. The article explores activities of university auxiliary bodies –conventions-which are to be special links between universities and their environment. According to the authors of this paper, this issue is of considerable importance in view of not only the currently conducted works aimed at introducing the new education act, but also the economic challenges being faced in Poland these days.

Keywords: university management, socio-economic environment of higher education institutions, triple helix, convention

Introduction

Effects of economic transformation in Poland, which has been taking place for nearly three decades, can be observed in a wide range of areas. Higher education sector also undergoes major changes - in terms of how universities interact with socio-economic environment in particular. Statistical data indicates that the number of students has been rising since 1990¹⁰, much like the scholarization index itself.¹¹ The said growth, however, translates into decrease in the quality of teaching and, therefore, widens the gap between what graduates learn and what employers expect. Businesses hope that prospective employees will demonstrate more practical skills and be well-prepared for doing professional jobs. (Theime 2009, p. 24)

Universities have noticed changing trends and have been monitoring them, including the ones that involve globalization (Hajduk 2014, pp. 23-33). Therefore, universities' management bodies became aware of the need for changing their view on management strategies being currently applied and, hence, adapting current curricula to market needs.

Given the fact that application of methods and tools originally used in private sector is highly satisfying in the public sector (New Public Management concept), it opens the door to working on New University Management concept based on the same principles. (Zimny 2013, pp. 163-171)

This study aims not only at discussing how important it is for state technical universities in Poland to cooperate with socio-economic environment institutions. It also provides analysis of actual solutions to be applied in this area, including institutionalization of this collaboration and developing scientific, academic, and research offer for businesses.

Phenomena in the literature

Nowadays, higher education institutions are regarded not only as suppliers of knowledge, skills, and qualifications but also-following from basic and, more advanced, professionally applied scientific research studies aimed at improving economy innovativeness-as leaders in knowledge development. Therefore, education sector-higher one in particular-must not be considered in terms of educational services. Instead, it should be supported by ongoing development of research and innovation at Polish universities. Given the above, attention should be paid to how complex the relations between universities and their environment are - not only in terms of education, research, and innovation

¹⁰ Data published by Central Statistical Office shows that the increasing number of students reached 1,953,832 heads in 2005/2006 academic year. Since then, the rate has been decreasing to reach 1,348,822 heads in 2016/2017 academic year (CSO 2017)

¹¹ This data shows that in the period 1990 - 2010/11, scholarization index had grown considerably from 9.8% to 40.8% net and, having reached the peak, it dropped slightly to 36.8% in 2016/2017. (CSO 2017)

development but also in terms of how effectively a modern higher education institution is managed. These relations may involve both cooperation and competition. They may be also reflected in more or less complex reciprocity between a university and entities being run in its environment. (Pluta-Olearnik 2009, p. 11)

What needs to be considered in the contemporary approach to the role that a university plays in its environment is the entire complexity of external relations between the higher education institution itself and entities being run in its environment. This strategy emphasizes that universities' environment is approached subjectively, i.e. both external relations between a university and its immediate and remote environment as well as resource flow between a university and selected institutions are analysed. Equally important is the internal aspect of how a university is run, which involves adapting relations within higher education institution to dynamically changing environment. Technically, it may be reflected, for instance, in bringing university management to professional level, establishing career centres, undertaking research aimed at gaining practical experience, specializing in a certain type of marketing activities, and undertaking initiatives aimed at establishing collaboration with selected entities within university's environment. (Pluta-Olearnik 2009, pp. 12-13)

Higher education institutions must not be considered typical market entities and their scope of activities must not be aimed at making profit only as it would imply that their relations with the environment would translate into market exchanges. This would mean that universities purchase education as well as scientific and research services from scholars, lecturers and scientists and sell them to, for instance: secondary school graduates taking part in admissions and their parents; adults interested in broadening their knowledge; businesses interested in R&D services; public institutions purchasing knowledge as publicly available commodity. (Minkiewicz 2003, pp. 33-34). As selected services offered by universities are provided on payment-free basis (public services), relations between higher education institutions and environment entities are far more complex.

As indicated by A. Minkiewicz (Minkiewicz 2003), the group of stakeholders using services provided by higher education institutions includes both direct and indirect learners as well as intermediaries between universities and state entities. Therefore, partners of higher education institutions include: the state and its bodies responsible for collaboration (the right ministry, public administration bodies operating within confines of a certain region, and local government bodies); customers purchasing education services (learners and persons paying for education), (businesses interested in new technologies, business environment institutions), entities providing financial resources to universities or activities they undertake. Other authors emphasize that professional self-governing bodies, labour market institutions, social institutions, media, other higher education institutions (Polish and international) as well as secondary schools also fall within the said group of stakeholders.

Beneficiaries of collaboration between universities and businesses can be grouped in four fundamental categories, i.e.: academic institutions, students, graduates, and businesses. Given this categorization, there is a great number of various benefits resulting from the cooperation between universities and business environment entities. Advantages of the first group (academic institutions) include-for instance-certain financial benefits, employers and prospective employees being more aware of the university and its brand, quality of teaching and academic/scientific research being enhanced, and legal liabilities being acknowledged. Students, however, benefit from increased chances of being employed after graduation, receiving remuneration for doing commercial jobs, internship and professional training opportunities, as well as establishing and developing business relations. Further, what is useful for graduates is not only personal satisfaction and financial profits but also career development. Finally, last but not least, entities which enjoy most benefits from the collaboration are businesses, falling under the last group of beneficiaries. These advantages include in particular: reducing costs and risks involved in running business, improving quality of human resources being employed, using universities as pools of new ideas, promoting partner's brand image, fostering relations with academic environment and, hence, developing new products and services. (Bryła, Jurczyk, Domański 2013, pp. 14-19)

As the relations are complex and, thus, there is a need for finding optimal conditions for encouraging cooperation between partners (university and socio-economic environment), it is possible to apply the triple helix model. As indicated by L. Leydesdorff and H. Etzkowitz (Leydesdorff, Etkowitz 2001), the triple helix model of innovation refers to a set of complex interactions between

three types of entities: universities, industry, and government. The strength of the cooperation between these entities depends on the interactions between them. In the event of no interactions being present, the flow of knowledge would be impeded.

The triple helix model is based on knowledge infrastructure and it is intertwined with overlapping institutional areas, whereby each area serves different functions and interacts with hybrid institutions. Moreover, as the links of the triple helix can perform their functions interchangeably, it is of great importance to emphasize that it is possible to transform tasks and functions fulfilled by universities, businesses, and government bodies. For instance, a higher education institution can serve an industrial function by supporting new businesses set up in incubators. Further, the government can also fulfil the industrial function by adopting financial programmes and making amendments to the existing legal provisions being in force. Conversely, it is also possible for the industry to serve functions originally fulfilled by an academic institution, i.e. development, training, and research. Networking relations falling within the triple helix model result in its links-although being independent of one another-changing into relatively autonomous institutions. (Bojar, Machnik-Słomka 2014, pp. 99-111)

A possibly widest group of stakeholders should be actively engaged in the economic development process. This, however, requires unanimous and close cooperation.

Research methodology

All state technical universities in Poland have been analysed. They all can be classified as one group. What is characteristic of this group is that technical programmes which are aimed at satisfying certain needs of the industry are predominant in this category.

In Poland, in the 2016/2017 academic year, there were 18 state technical universities supervised by the minister of higher education, 14 of which were referred to as 'polytechnics' and the rest as 'technical university'.

The analysis is divided into three parts:

- analysis of university statutes from the perspective of establishing conventions, their scope of duties and members of staff.
- analysis of statutes in terms of the members of staff of the conventions;
- analysis of cooperation opportunities offered to the economy by technical universities

Results and discussion

In the first place, university statutes were analysed in terms of establishing conventions, their scope of duties and their members. Although under the Polish law it is not obligatory to establish a convention, the principal purpose of this body is to provide strong support in establishing relations with stakeholders, i.e. the socio-economic environment of the university.

Only five out of eighteen technical university statutes fail to provide any regulations governing establishment of conventions. In statutes of three institutions it is provided that convention can be appointed within faculties, whereby two of these statutes stipulate that convention can be appointed not only within the university but also within each faculty separately.

The most common functions that Conventions serve include: expressing opinion on university's development plans (11 statutes), giving advice on which programmes should be launched-including postgraduate ones-to meet employers' needs (7 statutes), expressing opinion on the cooperation between university, businesses, and public administration bodies (8 statutes), expressing the needs for and opinions on carrying out research and innovation activities as well as creating laboratory facilities (6 statutes).

In the statutes having been analysed, the least common function served by conventions is co-participation in organizing and establishing auspices, filing applications for conferring honorary degree (*honoris causa*), as well as undertaking initiatives aimed at development of internship programmes aimed at graduating students (one statute only).

Further, statutes were analysed in terms of the members of the conventions.

Thirteen statutes provide that the members of the conventions can represent the following groups: state and local government administration bodies, businesspeople, representatives of employer organizations and self-regulatory organizations as well as representatives of academic, educational, creative, and trade institutions.

In three statutes, it is set forth that representatives of graduate and university supporter organizations are also permitted to be appointed convention members. This strategy is applied in the United States of America and aims at establishing relations between universities and socio-economic environment entities. The process is additionally stimulated by graduates strongly identifying with their Alma Mater.

It is also worth emphasizing that in six statutes it is set forth that members of staff employed in a given university are permitted to be appointed members of the convention. This not only reduces the possibility for appointing external members from the university's environment, but also results in the same members sitting in the senate.

In the second part of the analysis which was conducted by applying CATI method, i.e. computer-supported telephone interviews with university representatives, the authors collected data on how conventions work and function in each university. In two universities being analysed it turned out that no convention has been appointed, even though the statutes stipulate otherwise. This translates into conventions being run in only 11 universities, out of 18 being analysed in total. In five universities, conventions meet once a year, in four - twice a year and in one higher education institution - once a quarter. Majority of respondents is of the opinion that convention sessions are of symbolic nature and are organized along with regular events taking place, e.g. immatriculation, end of academic year, patron saint's day. Moreover, the sessions frequently boil down to university authorities presenting information on university's standing. Members of the convention do not express their opinion on development directions for the university, even though this is the fundamental function of this body.

The respondents representing universities where apart from university conventions also faculty conventions are being run, expressed positive opinion on faculty conventions. They referred to these bodies as giving professional advice on important matters and providing ongoing support for faculty authorities - both in terms of expressing opinion on opening new programmes meeting employers' needs but also in terms of cooperating with the industry in scientific research and testing technological solutions by faculty experts. This situation is undoubtedly related to the fact that convention members include industry experts whose profiles match specific faculties.

In the third part, the authors studied information available on universities' websites (accessed on 27.03.2018) to analyse cooperation opportunities which technical universities offer to businesses, e.g. expert base, making laboratory facilities available to businesses.

Sixteen higher education institutions offer services to businesses, whereby: 15 universities make their laboratories and research equipment available to businesses, 8 universities have expert platform (members of academic staff) where one can find each scientist's expertise to be used in cooperation between the university and businesses.

Moreover, in majority of universities a special organizational structure was created with the aim of establishing and developing cooperation between the higher education institution and businesses (technology transfer centres and business solutions offices).

The website of Humanist and Technological University in Radom provides, however, no information on business solutions being offered by the higher education institution in question.

Recapitulating the above part of the analysis it must be claimed that business solutions offered by technical universities (expert base, cooperation opportunities, making laboratories available to businesses) are presented in details and, hence, may encourage companies to enter into collaboration.

Conclusion

The presented analysis is of tremendous importance in view of the works on the new act-Higher Education Act-also referred to as the Science Constitution. Pursuant to the provisions of the bill submitted to Senate on 5.04.2018, University Council will be an intermediary body connecting the higher education institution with socio-economic environment entities. It will be seated by members outside the academic milieu who will be responsible for, inter alia: adopting university's strategy, monitoring financial and strategic management of the university as well as nominating candidates for the post of university president.

Certainly, replacing conventions being currently optional bodies with a permanent and obligatory body will foster relations between higher education institutions and socio-economic environment entities. However, benefits of faculty councils must not be forgotten and, therefore, it should be considered in the new act to appoint these bodies on obligatory basis.

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THE ESSENCE AND PREMISES OF CSR DEVELOPMENT IN POLAND

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Abstract: The concept of corporate social responsibility, as well as the concept of social economy, has appeared in public discourse in Poland relatively recently. However, one can make the hypothesis that this is one of the most important issues of modern economics, which has emerged as a result of the challenges currently facing economic and social policy. The aim of the study is to present the theoretical foundations of the CSR concept and review the effectiveness of activities in the field of corporate social responsibility in relation to the employee area in Poland.

Keywords: CSR, management

Introduction

The concept of corporate social responsibility, as well as the concept of social economy, appears in public discourse in Poland relatively recently. However, one can make a thesis that this is one of the most important issues of modern economics, emerging as a result of the challenges currently facing economic and social policy. For both concepts, there are many controversies in both scientific and practical discussions. In the case of CSR and the social economy, the need for a different approach to the role of the economy in social development is emphasized. In Poland, from the very beginning of its transformation in the 1990s, references to the social dimensions of the economy, such as solidarity, dialogue or cooperation, are juxtaposed with economic freedom or private property. In the literature, the idea of a social market economy indicates that it is possible to synthesize the freedom of private business entities to pursue the goals of social justice (Kuraszko, Rok 2007, p. 4). Observed at the beginning of the 21st century, accelerating changes of a social, demographic, technological, IT and globalization nature, caused that a need to redefine the social conditions for the development of the business sector emerged.

The aim of the study is to present the theoretical foundations of the CSR concept and review the effectiveness of activities in the field of corporate social responsibility in relation to the employee area in Poland.

CSR terminological issues

The concept of corporate social responsibility is not a new idea, and its premises can be found in canons of various religions or works of ancient philosophers. This approach was subject to evolution along with the development of civilization and economy. The current perception of CSR was particularly influenced by the crises of the 1930s and 1970s. of the same century and the global financial crisis of 2008, which revealed the importance of CSR as a tool to mitigate deep social inequalities, work-life balance disorders, resulting from the extension of working time and increase in its intensity. (Kuraszko, Rok 2007, p. 4)

For a long time, the issue of corporate social responsibility remained within the marginal interests and activities of enterprises focused on mass production. Over time, it gained importance by increasing the role of mass marketing. The growing importance of individual and group needs of social environments, both outside and inside the business, forced economic organizations to increase sensitivity and responsiveness to changes taking place in the turbulent market. In the definitional sense it is assumed that responsible business is the process of recognizing and incorporating into the management strategy of changing social expectations and monitoring the impact that such a strategy has on increasing the competitiveness of the organization. Thus, CSR is an "art" of meeting the expectations of key stakeholders of the company and seeking a dynamic balance between the interests of all players, while maintaining socially accepted ethical standards, in accordance with the valid law. (Kuraszko, Rok 2007, p. 5)

Corporate social responsibility therefore emphasizes its moral responsibility before: owners, employees, shareholders, clients, creditors, banks, ecological movements, suppliers, cooperators, state administration and its obligation to account before law and society for its activities (Walkowiak, Krukowski 2009, p. 10). Employee satisfaction, building positive relationships and building a mutual trust are important pillars of CSR activities (Hurta and Dunay, 2013; Bylok et al., 2015). It is important that the idea consists in voluntarily incorporation of social and environmental issues into business activities and relations with stakeholders (*Promocja europejskiego projektu ...* 2001). The CSR concept means, therefore, that the organization represents the attitude of sensitivity to the external environment (eg social or ecological sensitivity) (Walkowiak, Krukowski 2009, p. 11). The implementation of CSR activities brings several benefits such as competitive advantage, improving company's image and reputation in the market, increasing loyalty of employees and customers (Ubreziová et al, 2017).

Contemporary approach to the concept of CSR in Poland

The problems of CSR activities carried out by Polish companies after the initial period of the new concept, facing the financial crisis of the first decade of the 21st century, slowed down. The recession of the number of such projects was also undoubtedly influenced by the fact that Polish entrepreneurs expecting that these activities will bring significant PR, image and marketing benefits that will affect the financial results of the organization were not fully aware that the costs of these activities brought in real time, and the effects were to come with a delay. However, despite the pessimistic predictions, responsible business in Poland is developing and even gaining a new pace.

In the last decade, the growing popularity of CSR issues has come to a new dimension. It is undeniable that business activities, especially large ones, have a huge impact on the environment. As a consequence, there are growing numbers of voices that citizens/consumers should not set themselves as clients towards companies, but they should start to require concrete actions on their part and compensation for the adverse effects of their activities instead. So far, a trend has been observed in Poland, in the light of which enterprises defined CSR very freely and depending on their own needs, at the same time imposing their point of view on discussions about business responsibility. However, the debate on standards in this area in the global and European mainstream is far from treating CSR as an element of marketing comparable to PR and reducing the initiatives taken only to charitable activities. In this trend, an increasingly important role is attributed to public institutions and social organizations, without the pressure of which CSR would not take on the current shape, and parliaments set the role of a regulator of CSR activities recognizing the responsibility of enterprises for their impact on society. (*Spoleczna odpowiedzialność biznesu ...* 2015, p. 8-9)

Presenting CSR practices now, especially in relation to listed companies, ceased to be only a voluntary act of proving, but in the light of the amendment to the Accounting Act (*Ustawa o rachunkowości* 2017), which has implemented the provisions of Directive 2014/95 / EU into Polish law (Dyrektywa 2014/95/UE) it became the duty to report non-financial data. Obligations to draw up statements or reports on non-financial information covered about 300 entities in Poland, of which almost half are listed companies, and the remaining are other public interest entities, mainly in the financial sector. The basic criterion for determining whether a given listed company is to report non-financial information is the number of employees - above 500. The second is one of two financial criteria, that is revenues over PLN 170 million or total assets over PLN 85 million. In the light of the Act, the companies were left free to choose the standard or guidelines according to which they would prepare a report, on the other hand, however, the legislator specified a certain minimum content for each report. (Sroka 2017)

Methodology

This part of the study will present an overview of the effectiveness of activities in the area of corporate social responsibility in relation to the employee sphere based on the following surveys and reports:

- CSR Barometer; CSR Consulting, Maison & Partners (<http://csrconsulting.pl/2017/03/07/barometr-csr/>);
- *CSR in practice - a barometer of the French-Polish Chamber of Commerce; French-Polish Chamber of Commerce* (http://www.xbsgroup.pl/press-room/newsy-o-nas/slug.csr-w-praktyce-barometr-francusko-polskiej-izby-gospodarczej-raport,page,1,language_code,pl.html);

- *Evaluation of the program "Increasing the competitiveness of regions through corporate social responsibility (CSR)"; Polish Agency for Enterprise Development (<http://en.parp.gov.pl/research-activity-of-the-polish-agency-for-enterprise-development>);*
- *Investing For a Sustainable Future; MIT Sloan Management Review, The Boston Consulting Group (<https://www.bcg.com/pl-pl/capabilities/sustainability/insights.aspx>);*
- *SRI Study; State of Sustainable Business Survey; BSR, GlobeScan SRI Study; Eurosif, EY (<http://www.ey.com/pl/pl/newsroom/news-releases/news-ey-20161205-badanie-eurosif-i-ey>);*
- *The CR and Sustainability Salary Survey; Acre, Flag, Carnstone (<https://crsalarysurvey.com/home>).*

Results

The survey was conducted by consulting companies EY, the Association of Stock Exchange Issuers (Polish abbreviation: SEG) and Global Engagement Services (GES) titled "Non-financial reporting: requirements of the Accounting Act and market practice. Results of the ESG Companies Analysis in Poland 2017" (Sroka 2017) showed that companies most often omit reporting on issues related to employee rights policy - wages and working hours, and counteracting corruption. In addition, the level of reporting in the areas required by the Accounting Act is still insufficient, which means that the stock exchange companies need to do a gigantic work to reliably meet the requirements of the Act on disclosure of non-financial information and to meet the expectations of investors in this area better. The analysis of non-financial data carried out in June 2017 by EY, SEG and GES included 140 largest companies from eight sectors: fuels and energy, finance, chemicals and raw materials, health care, consumer goods, trade and services, industrial and construction, and technology. The analysis covered five areas: environmental, labour rights, ethics and counteracting corruption, social issues and human rights.

In the area of employee rights, none of the companies reported at a level meeting all the requirements of the Accounting Act. Nearly half of the surveyed companies (48.6%) revealed only a small amount of information or did not report any issues concerning this area at all. The vast majority (82.9%) of companies did not disclose or did not have a policy regarding remuneration and working hours, but only declared that it complied with legal regulations in this respect. Only 12.1% of companies published data on the average monthly salary.

The analyzed companies declared compliance with legal regulations in the field of occupational health and safety, however, as many as 58.6% of them did not disclose any information or disclosed it to a marginal extent. Only 23.6% of companies declared having anti-discrimination policy and as many as 59.3% did not disclose information on diversity or limited themselves to general statements that they do not tolerate discrimination. The situation in the field of trade unions was also very difficult. Most, as much as 77.9% of companies did not disclose any information relating to the freedom of association, or only declared compliance with legal regulations in this field.

In environmental issues, which were initially most strongly identified with CSR, almost half (42.9%) of the surveyed companies did not disclose any information on the subject or referred to them to a minimal extent. Unfortunately, the companies most often declared that they act in accordance with legal regulations in the field of environmental protection. 8.6% of the analyzed companies, in environmental issues, limited themselves to presenting CSR policy or strategy in this aspect.

In the area of counteracting corruption, 72.9% of entities declared no acceptance for bribery. However, only 15% of companies had an anti-corruption policy, and only one company carried out an analysis to determine the risk of corruption.

It was even worse with ethics, because as many as 66.4% of companies did not disclose information in this field or only declared that it operates on the basis of standards. For 6.4% of companies, ethics management reporting was limited to the publication of the Code of Ethics.

The research shows that 62.1% of companies either do not report or disclose to a negligible extent information about social involvement. Almost every fifth company analyzed published only a policy in this field, and 10% of companies reported that: they carried out social consultations, offered internships or offered apprenticeships. Only 5% of companies listed information about system solutions that enable the local community to make complaints about the company's operations or inform about local initiatives undertaken in the area of activity.

As many as 82,1% of the analyzed entities did not provide information on the observance of human rights and employee rights in the supply chain, or merely limited information that from their suppliers requires compliance with the rules on employees' rights and human rights.

In the group of surveyed companies, the activities or policies within the five analyzed areas were most often made available in the form of a separate document or in a tab on the website in the form of: Code of Ethics (41 companies), Environmental Policy (21), Diversity Policy (17), Policy for environmental and ethical issues and requirements for suppliers (16), Integrated Management System Policy (11), Sustainable Development Policy (11), Health and Safety Policy (8), Anti-Corruption Policy (6), and Energy Policy (5) and Sponsorship Policy (5).

Discussion

Corporate social responsibility is a complex and comprehensive management concept, however, its practical maturity is related to the planning and implementation of activities covering various areas of the organization's functioning. CSR is an idea in the light of which organizations in their activities voluntarily take into account social interests, aspects related to environmental protection and relations with various groups of stakeholders (Pęciłło 2011, pp. 19-21), for which all entities that can influence the business of the company are considered, being themselves affected by it in the same time (Pęciłło 2011, pp. 19-21). From the perspective of implementation practice, the International Standard for Corporate Social Responsibility - ISO 26000 - can be considered as specific guideline to the CSR concept (Polska Norma 2012) such as the Agenda for Sustainable Development 2030 and its Sustainable Development Goals. The scope of CSR, in simplified terms, can be reduced to two dimensions: internal directed primarily at the employees of the organization and external directed to the natural environment, society or the broadly understood market. Of course, the division between these dimensions is conventional because, for example, employees are also members of local communities, consumers, users of the natural environment and have a real influence, through electoral rights, on authorities, especially local ones.

Responsible Business Forum, one of the leading think-and-do-tank organizations that is the initiator and partner of key enterprises for Polish CSR, every year in its "Responsible business in Poland. Good practices" report (*Raport: Odpowiedzialny biznes w Polsce 2016*) note the increase in the number of CSR initiatives and practices, especially in the area of employees. However, these reports are prepared based on the verification of notifications made by the organizations themselves. Studies prepared on the basis of research of financial documents indicate numerous deficiencies in the sphere of reporting of undertaken activities as well as disclosure of financial data in this respect. A significant "revolution" in this area is brought by the adopted act on non-financial reporting of Polish companies.

The reports mentioned in the methodological part present good practices in the following areas resulting from ISO 26000: organizational order, human rights, workplace, environment, fair operating practices, consumer issues as well as social involvement and community development. Moreover, in the report prepared by the Responsible Business Forum, in the 2016 edition, the reference to the Sustainable Development Goals was included for the first time (*Agenda 2030*). These goals proposed by the UN in 2015 were also included in the document entitled Strategy for Responsible Development (Polish abbreviation: SOR), which is an instrument of flexible management of the main development processes of the Poland country. The strategy includes a new development model, the so-called "responsible development", which, by building competitive power, uses new growth factors, while ensuring participation and benefits to all social groups living in equal places in our country. The responsible development model also finds its implementation at the organizational level. In the light of the main goals of SROs, efforts are being made to create conditions for an increase in incomes of Polish citizens, while at the same time increasing cohesion in the social, economic, environmental and territorial dimension. The postulate is the postulate of sustainable economic growth, based more and more on knowledge, data and organizational excellence. Human and social capital were considered the key area influencing the achievement of the Strategy's goals. It is no wonder that in the published lists of the most frequently cited practices in the field of corporate social responsibility, the employment dimension is highlighted to an increasing extent. In this context, the CSR idea represents a wider perspective, because it covers the global, European and national trend of economic and social changes.

Conclusion

CSR is an idea which, despite the objections voiced by its opponents, in Poland in the nineties and at the beginning of the 21st century, is gaining more and more popularity. Initial fears that CSR will be in conflict with the economic interest of the organization turned out to be unnecessary. In the light of social and civilizational changes, bringing a growing awareness of human rights, employee rights and the responsibility of the organization towards its stakeholders, CSR practices gain the dimension of long-term investments. Their image-related results are felt by organizations already during their implementation. In the light of the analyzed reports, the discussed concept supporting management of the organization seems to be the right form of action, emphasizing the subjective shaping of the company's relations with the environment. This issue definitely deserves further in-depth analyzes covering the directions of CSR development in Poland and forms of practices that the organizations consider to be the most effective.

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PORTFOLIO LIFECYCLE AS AN OPTIMIZATION METHOD

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Abstract: An interdisciplinary, self-developed model, namely the M&M model, constituted the focus of the research and the present paper, whose model describes the dispersion of portfolio from the achievements of system theory and chaos theory. The model and the procedures would like to show interdisciplinary ways in the field of portfolio management, in which rational decisions can be made in an irrationally changing environment. The entropy of nature as a natural order in the decision-making process seems to be rewarding, as the study demonstrates that you can significantly improve the profitability and asset growth of a restructured portfolio. However, most interestingly, as a result of the research, it has emerged that there is such a rational/ irrational distribution that can be more profitable and recoverable without human (automatic) ordered distributions or even restructuring. The research should contribute to the optimization of decision-making processes and use a heuristic model to break the entropy of nature into investment decisions. Diversification and lifecycle planning are already strategic decisions, while managing a portfolio as a system can contribute to deductibles, self-development and sustainability. In a post-crisis period and simultaneous global interest rate environment, the demand for simultaneously profitable and crisis-proof investments has increased sharply. To this end, it would be desirable to conduct a self-developed heuristic M&M model as a means of optimization and the Rolling Nuts Method based on it as a continuous value-added process.

Keywords: entropy, investment strategies, portfolio lifecycle, portfolio management, system theory

Introduction

Portfolios and portfolio management is an important tool of reducing risks. Portfolios are formulated by the investors to get more alternatives for investments or investment fields, and the combinations of risks and yields will determine the decisions of the investors and how do they diversify their portfolios. One of the most well known theoreticians of portfolio management, Markowitz (1955) was criticized because his theory considers only rational investors. This theory was applied by Sharpe and Lintner (1965), when they described capital asset pricing model (CAPM). This model put the investor, as a human individual, in the focus, as the starting point of the process, and every decision comes from his/her rational basic decision. In the real life, it is not a properly working statement, as since the formulation of these theories, the science of behavioural economics has proved that individuals can make irrational decisions in many fields of their life (Kahneman and Tversky, 1979). It may be caused by different reasons, from emotional factors to forced decision-making or differences in the information flow. This theory is closer to the real life than the former theories, as it considers that the decision maker is a human being, who cannot perform the proper decision every time.

The problem of optimization of portfolios has not been solved until present, and the problem itself is not easy. Optimization of portfolios cannot be general, which is adaptable for all cases, it cannot be used every time, by everyone, as the market risks are different in each cases and the market risk is permanent, but changing from time to time. Proper decisions cannot be made, but one should choose the best available decision for him/her, but the goal should not be profit maximization, as the market cannot be defeated. Therefore, according to the new ideas and strategies, the so-called passive strategy is spreading, where the goal is not the profit maximization, but the reaching or exceeding some given indices, benchmark or requirements. According to successful investors like Warren Buffet, focusing is the best tool for decision making, which, together with diversification, may result more successful portfolios (Hagstrom, 2001). But how could a portfolio be diversified and focused at once? How is it possible to generate money and to be protected at the same time? How could we earn money using the passive strategy? How can optimization methods solve the problem of uncertainty and the lack of time? Is there any crisis-proof strategy? Our research discusses these questions and tries to find an answer for the questions by using a new, own-constructed portfolio model, which tries to give optimal, predictable, plannable and safe solution for focusing, optimization and sorting of portfolios. The aim of this study is to demonstrate the optimization function of the portfolio lifecycle planning.

Methodology

The own-constructed heuristic portfolio model is based on the principles of system theory, organizational development and chaos theory. It is called “M&M model” (see Fig. 1), which name was constructed based on Mintzberg’s theory of the existence of dominances in organizations (Mintzberg, 1979) and the theory of fractal endless of Mandelbrot (1982).

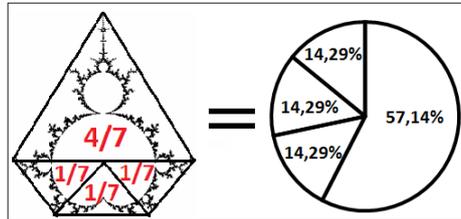


Figure 1. The M&M model and its distribution

Source: own editing

The model was published in 2016 for the first time by Cziráki (2016), and present paper gives a brief outline of the model and its theoretical background of general system theory. According to these theories, a system is more than the simple sum of its components, as systems have more advanced features: spontaneity and self-preservation ability (Bertalanffy, 1957). Present research considers portfolio as a financial system, and makes attempts to explore the system’s spontaneity (ability for change) and sustainability (ability for self-operation). The Nobel prized economist, Thaler, who was the student of Mandelbrot, proved that a more regular checking of one’s portfolio will increase that owner’s expectations and requirements. This, short-term focused behaviour may be found in case of institutional investors, although they follow long-term strategies, they also prefer short term yields, and do not change their portfolios to long-term focused shares, they insist on keeping short-term objectives as well (Benartzi and Thaler, 1995).

Avoiding this short-term focusing behaviour, this research examines that case, when the investors make a decision about the portfolio only once a year, at the first trading day of the year. We analyse how much yield can be generated in certain cases during a 10 year period, and what will happen if the investor changes his/her investments with one decision in the given year. Thus, we can calculate the difference between the yields of different diversifications and we can get an answer on which option is better: to change the portfolios or to leave them according to the optimal distribution. In our research, the modern portfolio theory (MPT) plays an important role, which suggests the distribution of invested assets in 1:1:1:1 ratios. This is used as a benchmark, which is examined without any realignment. In addition, the portfolio lifecycle model was also created, which outlines previously determined portfolio distributions, in order to make the decision-making process easier. The portfolio lifecycle model starts with the growth-oriented portfolio (Growth), which is followed by a balanced and finally it ends with a fixed income portfolio (Figure 2).

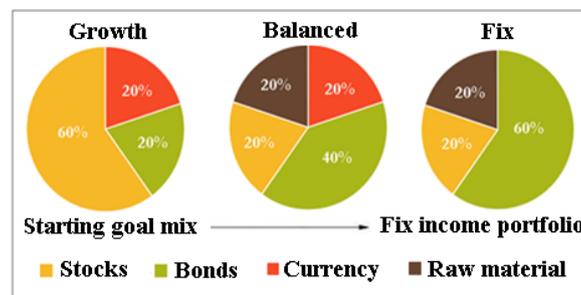


Figure 2. The portfolio lifecycle model

Source: own editing

Portfolio lifecycle is similar to the development of an organization, where the different stages of a company’s lifecycle may be differentiated and the stages will have different features, processes, situations (Illés et al., 2015). The processes in the different lifecycle stages may be generalized, and

may be used in the decision-making process (Illés et al., 2012). Thus, similar to a new organization, a young portfolio in the first lifecycle stage shows interest towards a growing tendency. Later, in the next stage, the main objective will be a less risky and more stable distribution. Accordingly, in the portfolio lifecycle model, the first attempt is to increase the proportion of shares, and in later periods, the investors will prefer the less risky bonds. This process may be applied for the M&M model as well, which assumes a dominant part ((4/7=57,14%), but we can decide, based on which investment categories should we formulate the dominant part itself. This heuristic model-based sorting is called Rolling Nuts method, which assumes that the changes will always keep the structure of 1:1:1:4 investment proportion, only the dominant part is changed one after another (see Fig. 3). The model – with this complimentary procedure – allows to utilize the spontaneity of the systems and thus, to react the changes of the environment or the changes of investors’ requirements.

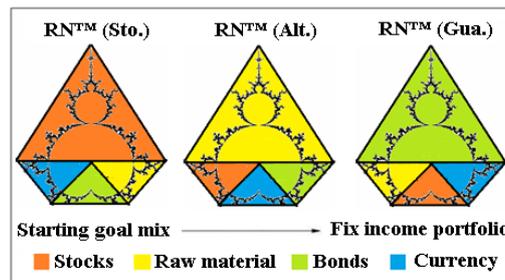


Figure 3. The Rolling Nuts Method

Legend: Sto. = stock, Alt. = alternative, Gua. = guaranteed

Source: own editing

Discussion

Three different decision-making processes are examined by this paper, namely Lifecycle I., II. and III., the plans and planning activities were prepared for 10 years, by using the same investment elements.

In Lifecycle I., after the first growth-oriented year, the portfolio is organized into the balanced structure for one year, and then it enters to the fix period, with fixed yields, and it is left in this construction for the rest of the period. In case of Lifecycle II., the growth stage is longer, it works for two years, then for 2 years it is in the balanced stage and then it is reconstructed to the fixed distribution. The process of Lifecycle III starts with 3 years of growth stage, it is followed by 3 years of balanced stage, and then it enters into the stage of fixed distribution.

This, method, having stages with different decision-making steps, can also be applied for the Rolling Nuts (RN^{TM}) method, where the lifecycle is substituted by different RN^{TM} distributions (Stock, Alternative and Guaranteed), thus, three decision-making processes were created based on the M&M model (Figure 4).

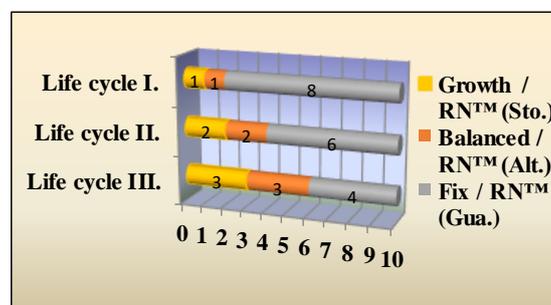


Figure 4. The lifecycle portfolios, in years

Source: own editing

The restructuring of the model means the process of searching for the optimum decision-making process version, and may give answer for the question that is it worth to make the restructuring of portfolios, or not. This analysis should be considered as a strategic management process, as it is connected to long-term decisions, and the optimized investment decisions will bear long-term impacts, and, of course, competitive advantage. In case of investments, special indices are used, such as asset growth and asset return period, but the preferences are given by the investors according to their needs (i.e. faster return period or safer and more stable asset growth).

Four investment elements were chosen, which were applied in each portfolios, and are included in the abovementioned categories: DAX index (Stock), Hungarian government bonds (Bond), gold (Raw material) and EUR/HUF currency (Currency). It is examined that in the 8 or 10 year period which differences may be detected, is it worth to make changes (i.e. restructure the portfolios) and is there any distributions, which makes profit without making any changes (*Table 1*).

Table 1. Comparison of 8 and 10 years asset growth and return, in %

	Asset growth 8 years	Return of assets 8 years	Asset growth 10 years	Return of assets 10 years
MPT	206,51	9,73	213,44	8,12
Growth	175,45	8,12	209,38	8,36
Balanced	199,39	9,18	209,00	7,82
Fix	212,94	10,12	223,97	8,61
<i>Lifecycle I. (1+1)</i>	217,59	10,44	228,87	8,87
<i>Lifecycle II. (2+2)</i>	221,71	10,70	233,20	9,07
<i>Lifecycle III. (3+3)</i>	215,19	10,27	226,35	8,73
RNTM (Stock)	201,06	10,01	226,83	9,26
RNTM (Alternative)	279,35	14,00	247,91	10,08
RNTM (Guaranteed)	191,67	8,58	204,17	7,51
<i>Lifecycle I. RNTM</i>	218,42	10,45	232,66	9,01
<i>Lifecycle II. RNTM</i>	239,68	11,84	255,30	10,08
<i>Lifecycle III. RNTM</i>	258,92	12,92	275,79	11,00

Source: own research

The calculations were made under the circumstances of the past crisis period, in order to find which alternative is the most stable in crisis time. In *Table 1*, the growth and average return of the assets is given for the 8 and 10 year long periods (calculations were made with data of the period between 2005 and 2014).

The columns representing asset growth are related to the basic, initial year (100%), which means, that the point of return is at 200%. As it is shown in *Table 1*, most portfolios reached this point at the end of the 8th year, and it is visible that the restructured portfolios reached higher growth than the not-organized versions. The highest value is achieved by the RNTM (Alt.) portfolio with 279,35% asset growth in 8 years, but it shows lower result in the 10 year period. In all other cases, the restructured portfolios could generate a higher value of assets in 8 years than the not-organized ones, which call attention for that the lifecycle portfolios should be considered as viable and rational decisions, even in the 8 year long period.

The differences between the results of the different diversification decisions may be seen clearly in the ten year run. For example, the impacts of the global interest rate decrease may be seen on average return of assets (Return o.a.), as all portfolio contained government bonds. Nevertheless, it can be stated that restructured portfolios reached better results, than the simple diversified ones, except RNTM (*Alternative*) portfolio, which was not restructured, but in 8 year period it was the record keeping version, and in 10 year run, it was the third. This observation proved that there are such versions that can reach the optimum result without any interventions, as the circumstances, the initial conditions and the natural distribution plays a significant role in all economic processes.

Conclusion

Portfolio restructuring as a second decision-making process is to be suggested for decision-makers, because the impacts of the environment cannot be disclosed by simple diversification. As it is shown in *Fig. 7*, significant differences may be detected in the yields (returns) of assets.

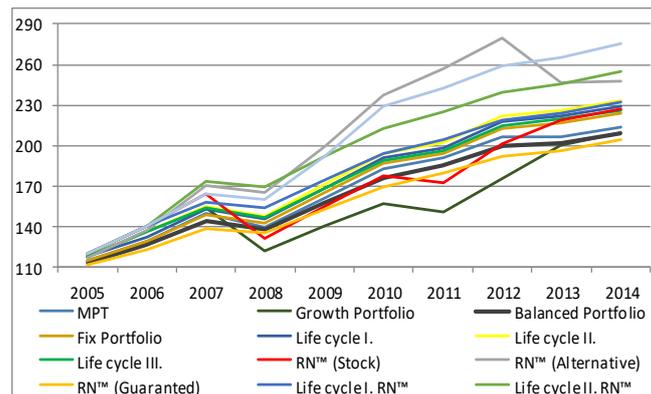


Figure 7. 10 years asset growth of analysed portfolios, in %

Source: own editing

The first and second place is represented by restructured portfolios, and the former recorder is at the third place. They resulted asset growth of 248–276%, all the three portfolios are built on the M&M model, two of them were restructured, one was not-restructured. The next group of portfolios was the group of Lifecycle portfolios (I., II., III.) and RN™ I, producing 230% of growth. At the end of the list one can find the not restructured portfolios, with results between 204–213% asset growths. These results proved that restructuring of portfolios is a process, which max improve the diversified structures, may be used as an optimization method.

Knowing the lifecycle of as portfolios may help in the decision-making process, based on the circumstances and the composition of the portfolios one can choose the more appropriate, optimum decision, which – based on the circumstances and the given lifecycle model – may influence the asset growth and the return of the assets.

As a result of the research it can be stated that the right portfolio selection is more important than the reorganization Portfolios are therefore sensitive to the starting conditions, which must be taken by the planning period of strategic management In addition, the study also found that portfolio lifecycle is such an organizing and controlling tool that improves portfolio performance.

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FACTORS AFFECTING SYRIAN FEMALE RESEARCHERS IN BUSINESS: BUILDING A THEORETICAL MODEL

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Abstract: The purpose of this research paper is to introduce a model which examines potential factors that affect female academic researchers' experience in Syria in the scope of higher education within the faculties of business and economics in public and private sectors in Syria. The subject matter of female academic research performance in the scope of higher education in Syria is not examined thoroughly in the research on female academic researchers in higher education in Syria. The research study follows an inductive approach based on observing phenomena and developing a theory based on the subsequent assumptions. The research study examines micro, meso and macro level factors which are employed in this research. Research methodology employs the focus group approach conducted with female academic researchers in business in Syria. The research develops a theory of female researchers in higher education in order to understand the female academic research experience and production in the scope of business.

Keywords: female researchers, inductive approaches, multi-level analysis, content analysis, higher education, faculties of business

Introduction

The new reality of management emphasizes a shift from stability to change, from competition to collaboration, from uniformity to diversity and from conventional and bureaucratic management to contemporary and team based management (Daft, 2008). Higher education institutions are no exception to this approach, and they need strong leadership in academic environment that can transcend time, place, geography, race, and above all gender. The imperative to empower female academics is accelerating, and as international global businesses rely more and more on the significant roles played by female academics and researchers. Prior academic research indicates that there is requirement for a greater number of female academics in the Middle East region (Sidani, Konrad and Karam, 2015, Itani, Sidani and Baalbaki, 2011, Al Ariss and Sidani, 2016, Frederick Littrell and Bertsch, 2013, Al-Lamky, 2007).

The prevalent and organizational environment of Higher Education industry in the region, particularly Syria could be generally characterized by traditional managerial approaches with strong bureaucratic and male dominated environment, application of relatively outdated or traditional methodologies, lack of individual recognition, and effective encouragement of outstanding performance, limited collaboration with international partnership and networks, and lack of effective empowerment program schemes to develop research centers for female academics (Dalati, Raudeliūnienė and Davidavičienė, 2017, Dalati, 2016). The turbulent political environment in Syria which goes back approximately to the past seven years has created a threat and an opportunity for Syrian female academics to endeavor to take significant roles in various fields of both academic and managerial features within at Universities in Syria.

Research Background

The general argument of this research is that the question of investigating factors affecting female researcher is a not only specific to the Middle East region, rather it is a general phenomenon which is under investigation across both developed and developing regions. The UNESCO Institute for statistics (UIS) presents facts sheets the status of women in science, which indicates that women are identified as a minority of the world's researchers (UNESCO, 2017). Although there is a growing demand for cross –nationally – comparable statistics on female researchers, on a national level the statistics indicate lower percentages. The UNESCO Fact Sheet (2017) indicates that the regional averages of the percentages of female researchers based on available data only for 2014 are 28.8 % for the world, 39.9 % for Arab states, 39.6 % for Central and Eastern Europe, 47.2% for Central Asia, 22.9% for East Asia and the Pacific, 44.7% for Latin America and the Caribbean, 32.2% for North America and Western Europe, 19.0% for South and West Asia and 30.4% for Sub-Saharan Africa.

As indicated earlier, the Arab states accounts for 39.6% for female researcher representation and this is considered as an adequate comparison with other regions. Tunisia accounts for 53.9%, Egypt 42.2%, Sudan 40.0%, Algeria 34.8%, Morocco 32.1%, Libya 24.8%, Bahrain 39.0%, Iraq 37.50%, Kuwait 37.3%, Jordan 22.5%, Qatar 21.9%, Saudi Arabia 4.0%, and no available data on Syria, Lebanon and Yemen. Turkey has 36.9% of the female researchers.

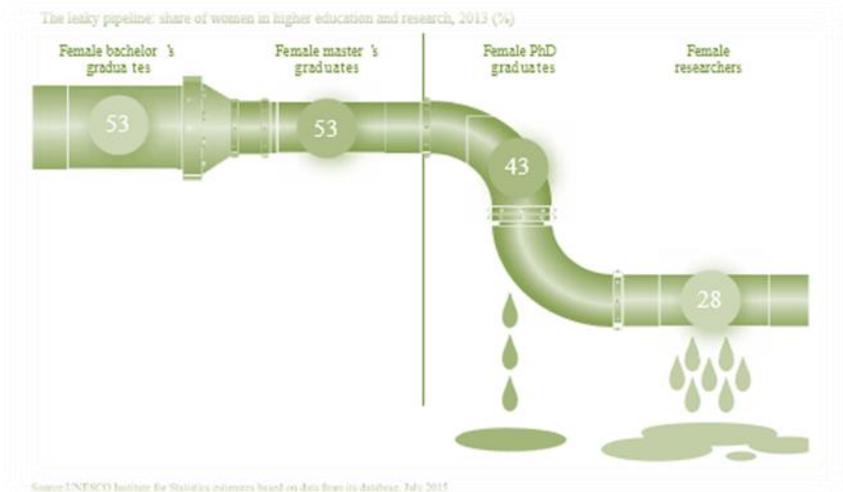


Figure 1. Leaky Pipeline: share of women in higher education and research

Source: The UNESCO Institute for statistics based on data from its database July 2015

Syria is in the Middle East nearby the Mediterranean Sea and in the Middle East region, surrounded by Turkey, Lebanon, Jordan and Iraq. The turbulent political environment in Syria which goes back approximately to the past seven years has created a catastrophic situation on different levels. The population of Syria which was approximately 22.1 million in 2010, is estimated to have decreased by at least 20 percent since March 2011. The crisis in Syria led many people to leave the country seeking better and safer living standards. Many students as well as academics left Syria for better and safer conditions. The current situation in Syria generates an opportunity for Syrian female academics to endeavor to take significant roles in various fields of both academic and managerial features within Universities in Syria (Dalati, S., and Al Hamwi, 2016). A Previous study on “(Syria National Erasmus+ Office, 2015) illustrates that only 8% of top Syrian international researchers are women (p. 23).

The prior literature indicates a set of factors and possible causes for female academics underrepresentation in senior positions in higher education (Gardiner, 2005). Tlais and Kauser(2010) investigated female perception of potential barriers affecting career advancement and progression in Lebanese work environment, including organizational culture, practices and network, and socio – political factors.

The reality in Arab countries is that women struggle with patriarchal, male dominated hierarchies which have a conservative orientation towards women. Moreover, in Arab countries, women have only recently began to join the rank of managers and are grossly underrepresented at the lower, middle and senior levels.

Research Problem and objectives

The purpose of this research is to explore factors affecting Syrian female academic researcher’s perceived experience in scientific research development in the scope of business and economics. The study examines the following research question: **“What are the factors which are affecting female Syrian academic researchers’ experience in scientific research development in business?”** However, the topic of female academic research performance in the scope of higher education in Syria is not examined in the prior literature in the sense that there is no adequate research on female academic researchers in Higher Education in Syria. Developing a robust theoretical framework based on previous literature would not be a feasible approach due to the lack of previous studies which

examine the topics related to barriers or factors related to female academic researchers. Therefore exploring research question is achieved through an inductive approach conducting focus group and semi – structured interviews approach.

Research Methodology

The current research study employs an inductive approach where the research develops a proposition or theory based on observation of particular facts (Zikmund, G., Carr, J.C., Griffin, M., Babin, 2013, Bryman, 2013). For better understanding of inductive approach, a comparison with deductive approach could be helpful. A deductive approach starts with a set of hypotheses, then designs research methodology and instrument for data collection, then considers data analysis and findings of research, then confirmation or rejection of the hypothesis and revision of theory is established. The deductive approach starts with theory formulation and ends with findings and revision of theory. In comparison inductive approach involves the movement in the opposite direction. An inductive approach starts with observation and findings and assumes and infers the implication of their findings that introduced the theory. The findings of research are fed back to the theory. With inductive approach, theory is the outcome of research (Bryman & Bell, 2015). Figure 2 clarifies the difference between deductive and inductive approaches which is thoroughly explained in (Bryman, 2013).

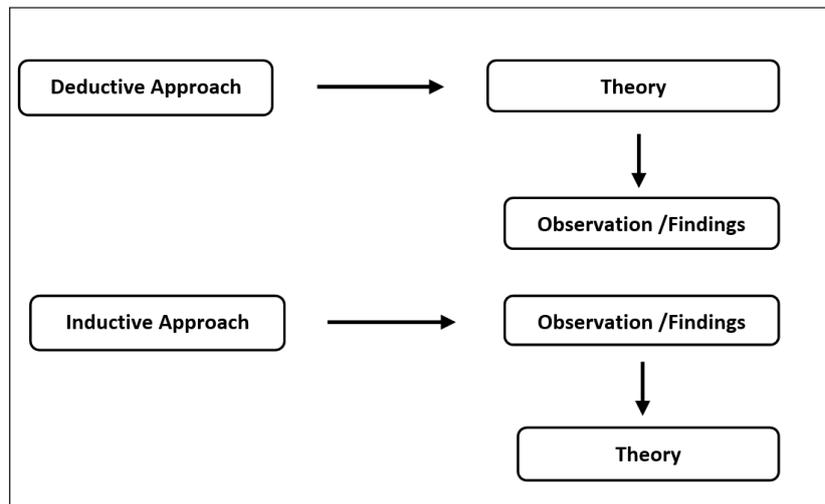


Figure 2. Deductive and Inductive approaches Source: Bryman 2013

Source: own study

This paper follows qualitative approaches through conducting focus group approach. The research methodology is based on conducting focus group which is comprised of female academic researchers selected from public and private higher education institutions operating in Damascus, Syria. The purpose of the focus group is to examine the factors affecting Syrian female academic researchers' perception of research experience in the scope of business research. The focus group participants were selected from private and public universities in Syria. The unit of analysis in this focus group is female academic researcher who has obtained a PhD degree in business or economics. The group consisted of 5 female academics, 2 of which were fulltime academic staff at a private university, and 3 of which are full time staff at a public Higher Education Institution. The focus group is documented by voice recording. No video recording was conducted. Participants' informed consent was obtained regarding recording of the focus group. The focus group was conducted in Arabic language.

The focus group administrator asked participant one general question enquiring what are the factors effecting female academic researchers' experience in research in business and economics studies. The respondents gave different viewpoints and responses on dimensions which could impair female academics from producing research in the field of business.

Research Results

After conducting focus group, a set of factors were identified as affecting Syrian female researchers in the field of business and economics. Participants provided responses which identified multiple factors including marital and maternal status, personality traits, self-confidence, motivation, marriage and husband influence on female academics research activity and productivity; empowerment within the family and support shaping female academic researchers personality. In addition organizational factors are also identified including academic workload and time pressure related to hours of teaching per week for lecturers, research infrastructure including the availability of databases, online library, research labs, and statistical packages, the availability of electricity supply which will affect researcher performance, financial incentives, regulations, networking with stakeholders. Finally socio-cultural factors were also identified highlighting social and cultural perceptions of women and religion and its interpretation.

Personality Traits

Personality were discussed as factor shaping female researcher experience. One respondent emphasized self-confidence as crucial factor. Lack of self-confidence is preventing female academics from conducting research, particularly in a male dominated society.

Motivation

Female researcher motivation was discussed identifying intrinsic and extrinsic motivation. Intrinsic motivation is identified as passion and interest for research, as well as academic promotion. Financial incentives for research was also identified as crucial motivational factor.

Marital Status

Marital status was emphasized among respondents in the focus group. One female respondent pointed out to the marital status factor. The point of view is that single academics are more productive in terms of research than married female researchers. The point of view is that married female academics are producing less research and are being less productive than single female academics. A married female academic is facing family pressure and household work which could impair her from perusing and conducting scientific research. There are household and family pressure a female academic is going through including taking care of the children and housework. The factor related to family demands particularly for married female academics is mentioned by more than respondent.

Family Background and Support

Family background and support is examined in research results. A response is related to family support which plays significant role in supporting female academic researchers to peruse their academic research work.

Academic Workload

Another respondent pointed of to the factor of academic workload and time pressure related to hours of teaching per week for lecturers, in addition to administrative position which could be held by this faculty member (head of department, vice dean, dean). The argument is teaching for 14 hours on a weekly bases, as well as the possibility of administrative work (head of department, vice dean) and teaching as part in other higher education institutions as this is the case of 3 respondents who are working as part time, poses high workload and pressure of female researcher productivity.

Research Infrastructure

One respondent pointed out to the importance of research infrastructure including the availability of data bases, online library, research labs, and statistical packages. Worse than that, there is lack of basic infrastructure such as the availability of electricity supply which will affect researcher performance. The lack of research infrastructure creates a negative effect on development and conducting research for female researchers.

Institution Financial Incentives

Financial incentives provided by higher education institutions are significant motivational factor. One respondent argued that financial incentives are strong driver to motivate female researchers to focus on working on research work.

Social factors

Social factors are discussed identifying barriers stem from the social culture and norms describing general perception of women and perceived roles and responsibilities and assigned to both men and women in the frame of Middle Eastern and patriarchal societies. These factors are identified as social perception of women, and religion and its interpretation.

Social perception of women is discussed by female participants, and is reflected in the perception of women as wives and mothers whose primary duty is to become a housewife and bring children and raise them. Therefore women primary role and responsibility is devoted and directed towards becoming a wife and a mother, not perusing a professional or academic career or becoming a researcher.

Building Theoretical Model of Academic Female Researchers in Syria

This research study explores factors affecting the experience of female academic researchers in business and economics studies in Syria. The methodology employed in this research study is based on an inductive reasoning which examines is the logical process of establishing a general proposition on the basis of observation of particular facts (Zikmund, G., Carr, J.C., Griffin, M., Babin, 2013). This research develops a theory based on observation of phenomenon and pieces of evidence examined through focus groups. Based on the multi-level analysis performed and based on the group interviews, the research builds theoretical model of female researchers in higher education examining micro, meso and macro factors.

The micro level examine intrinsic and individual factors affecting women researchers exploring both intrinsic and extrinsic motivational factors including basic and primary needs (basic needs and financial security) and higher need (social esteem and self-esteem, self-actualization). Researcher personality traits are examined and the study identifies a set of significant qualities including self-esteem and self-confidence. Family background, education and Support is also examined as a crucial dimension in shaping female academic researcher personality and career success.

The meso level examine factors identified as academic work overload, and research infrastructure and male dominated organizational cultures which characterize Higher Education institutions in Syria.

The macro level examines crucial factors influencing and shaping women researchers' experiences and perception of themselves as well as the social culture they exist in. The social culture in Syria which is based on and influenced by Arabic and patriarchal societies assigns roles and responsibilities for women as well as men. Women are still perceived and favored as wives and mothers, rather than high level professional. The interpretation of religion is also interesting to examine as it goes back to more than 1400 years when the Holy book and Quranic verses were interpreted by Muslim scholars who existed at that era. It is interesting to note that different interpretation and understanding of the Quran exist.

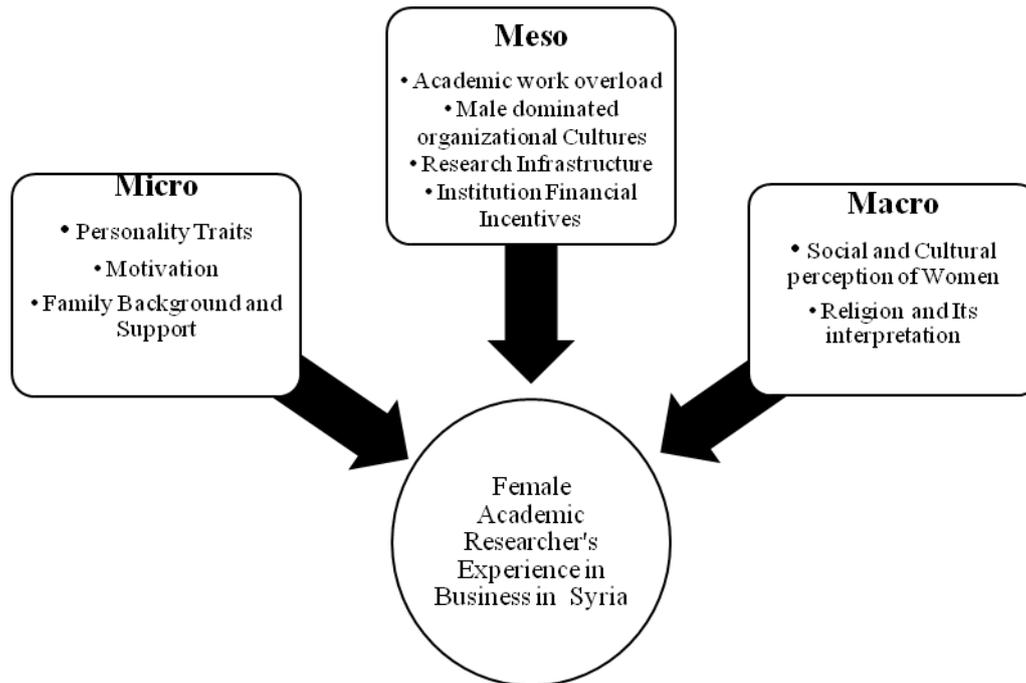


Figure 3. Theoretical Model of Female Academic Researcher's Experience in Business in Syria

Source: own study

Research limitation and future research

The research major limitation is related to methodology which is based on the one focus group approach. Future research should explore an exploratory approach and deeper understanding of the factors affecting women researchers in business in Syria. The research is valuable investigation as it is the first study on female researchers in Syria, however future studies could explore expanding size of research sample of female participants and conduct individual depth interviews with research participants for better understating and development of research theory of factors affecting academic researchers' experience in Business in Syria. Further studies could also employ a deductive approach and test the theory. Quantitative approaches can be employed to test the theory.

Conclusion

In conclusion this research develops a theory which examines factors effecting Syrian female academic researchers in business studies. The theory is based on multi – level factor examining micor, meso and macro levels. The importance of this study is that it is pioneer study examining the situation of women in academia in Syria in business studies.

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THE IMPROVING OF PRODUCTION ENTERPRISES FUNCTIONING FROM THE PERSPECTIVE OF EMPLOYEES AT DIFFERENT ORGANIZATIONAL LEVELS

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Abstract: An important element that ensures the smooth functioning of a company on the market is its constant improvement. The improvement processes should concern all areas of the company's activity. What's more, all employees should be involved in the improvement processes. A certain dissonance appears in the assessment of the need to improve the functioning of the enterprise among employees at various organizational levels. Therefore, the main aim of the research was to analyze factors affecting the improvement processes occurring in enterprises from the perspectives of different employees (from supervisors directly to production employees). The research was carried out by means of a questionnaire addressed to selected employee groups. The differences and similarities were shown in the assessment of the respondents. On the basis of the research results, a model of procedure in the process of improving the functioning of enterprises was proposed.

Keywords: functioning organization, organization levels, process improvement

Introduction

Nowadays, all economic entities can be included in the so-called learners' organizations. This involves the need to respond to changes occurring in a turbulent environment. Therefore, enterprises, in order to meet market requirements, are forced to constantly improve every sphere of their activity. As practice shows, the way that ensures continuous and stable development is to implement the Kaizen philosophy to the business management system. Moreover, continuous improvement does not cause a significant rise in expenditure (financial outlays), as in the case of innovation. In addition, all employees of a given company should be involved in this process, regardless of their level in the organization. However, attention is drawn to the fact that employees at various organizational levels may have different opinions regarding the functioning of the enterprise (its various spheres and processes) and look from different perspectives to improve company's functioning, in accordance to various objectives. The authors of the study considered this an interesting research problem. Therefore, the aim of this work was to analyze the factors perceived from different perspectives (supervisors and directly production employees), affecting the improvement processes taking place in production area of enterprises.

Therefore, a survey was conducted in selected units (manufacturing enterprises) addressed to both first-line employees and senior managers. Based on the results, the problem was analyzed and a model of proceedings for manufacturing enterprises was proposed. The model takes into account the differences in the perception of the process of improving the functioning of the manufacturing units, recorded at specific organizational levels.

The work has been divided into several parts: introduction, review of the literature concerning the problem under examination, description of the research methodology, main results of the research together with an indication of the behavioral model of improvement in functioning as well as final conclusions.

Premises for improving production enterprises in the context of their organizational structure

The organizational structure has been described in literature many times, using different approaches. For example, A. Hamrol and W. Mantura, relate the importance of the organizational structure to quality management, defining it as a structured set of relations between organizational units, as components of organizations capable of operating (Hamrol, Mantura, 2004, s. 74). They distinguish management organizational structure and executive organizational structure. The management organizational structure presents relations between units performing management

functions. The executive organizational structure presents relations between organizational units implementing executive functions (Hamrol, Mantura, 2004, s. 104).

This article uses this division, focusing on the assessment of the chosen area of the company's operation from the point of view of the management staff and the executive organizational structure.

In the literature, there are a number of studies related to the implementation of continuous improvement (see Fryer, Antony, Douglas 2007, Alhaqbani et al. 2016) and factors affecting them. Moreover, it has been proven that leadership and commitment of managers in continuous improvement should be visible at all levels of management (Kaye and Anderson 1999; Prajogo and Sohal 2004; Grover et al. 2006; Sila 2007).

Manufacturing enterprises use various methods and concepts that aim to improve and, hence, increase the efficiency of production processes. At the same time, production process improvement is possible only when processes are identified, measures are established to assess them and systematically verified (Baskiewicz, Kadłubek 2017). One of such methods is Total Productive Maintenance (TPM), where this goal is achieved through the involvement of operational employees at various levels in assigned tasks. Nowadays, the application of the TPM concept in the area of primary processes may be insufficient to achieve the set production goals. There is a need for looking for new solutions that aim to minimize losses on the scale of the entire company, not just production losses (see Kot, Grondys 2013). Thus, there is a need to improve all areas of the company's operation.

By treating the process / area of the company's operation as a service, it can be assessed in the context of broadly understood quality (internal and external). As examples of research methods relating to quality issues, Servqual or Importance-Performance Analysis can be mentioned (Parasuraman, Berry, Zeithaml 1985; Martilla, James 1977). These methods relate to the sphere of customer service and can be used by all types of companies - production and service. Based on them, it is possible to identify key areas for improving the customer service process, e.g. in the entertainment industry (Klimecka-Tatar, Kowalik 2017). It should be noted that the service quality models can be divided into those that are mostly based on the Parasuraman model quality gaps (ex. Grönroos 1984, Brogowicz et al. 1990, Dabholkar 2000, Frost and Kumar 2000) and those that differ from the vulnerability model (Bielawa 2011, p.18).

The need for improvement in various organizational divisions is usually different. In such organizational departments as production, finances or operational departments, improvement usually takes place quite well. It is connected with the fact that these departments are focused on achieving such goals as cohesion, reliability and efficiency. Employees of these departments should not have a problem to face the process of improvement. In turn, employed people, for example in the marketing department, which focus on relationships and innovation, may already have some difficulties in processes improving (Knop, Mielczarek 2015, p.73).

What's more, the same process may be assessed differently from outside (perspective of clients or other stakeholders), and inside (evaluation of employees being executive or auxiliary links of the process). These two types of entities (external and internal) may indicate the need to improve other areas of a given process or propose a different scope. Therefore, the assessment of a specific process / area of the company's operation should be made from these two perspectives. Only this allows the implementation of activities that actually improve the quality or effectiveness of a given business process / area of operation.

Methodology

The achievement of the goal set at work was progressing in several stages. In the first stage, it was connected with the collection of data considering factors that affect the improvement processes. The applied research tool was a questionnaire addressed to both: superiors (managers) and operational employees (so-called first line employees). The questionnaire consisted of closed, semi-open and open questions. In some of the questions the Likert scale was used, that allows to determine the strength of a given phenomenon. It was possible to mark many answers in some questions. The questionnaire was used to get to know the insights and opinions of employees regarding the functioning of a given enterprise. Its aim was to identify the factors that have the greatest impact not only on the functioning of a given company, but also on areas related to the improvement of production processes. The survey was divided into four parts:

- part I concerning the evaluation of improvement activities throughout the enterprise,
- part II concerning the evaluation of the functioning of the selected production process,
- part III concerning the evaluation of the applied tools and methods of improvement,
- part IV concerning the assessment of factors improving the selected production process.

The survey was conducted in three purposefully selected business units - production-type enterprises with headquarters in the Silesian Voivodeship, employing over 100 employees.

The second stage of the research is the analysis of the collected information. In this study there were presented only selected results obtained during the research. Based on the obtained results, the problem was analyzed and a model of proceedings for manufacturing enterprises was proposed, regarding the differences in perception of the process of improving the functioning of these units, observed at specific organizational levels.

Main results

As a result of the survey, 144 questionnaires were obtained, including 120 from employees of the so-called lower level and 24 from superiors (manager level and higher). In table 1 there are presented a summary of the respondents' answers to the question about the purpose of process improvement. It was possible to select several answers from the given variants or add their own answer. At the same time, a few of the answers provided could be combined thematically with the proposed variants.

Table 1. Needs to improve processes in the surveyed enterprises

Determination of the factor	Research group		
	Superiors [%]	Employees [%]	Total [%]
Increased process efficiency	76	21	30
Increasing the company's profits	68	3	14
Implementation of the company's development strategy	45	3	10
Lowering costs	87	15	27
Product quality improvement	65	24	31
Increased work safety	35	27	28
Product improvements	46	9	15
Method of maintenance and servicing of machines	35	74	67

Source: own study

The analysis of the obtained results allowed to state that there are several factors (premises for implementing improvement measures), which obtained the highest number of indications (the "maintenance and servicing of machinery" factor, "product quality improvement" and "increase of process efficiency"). It is worth noting that there are differences in the indications of these factors depending on groups of respondents. For example, in the area of "maintenance and servicing of machines", employees' indications were more than twice as high as superiors, while in the area of "increased process efficiency", supervisors chose this response more than three times as often as operating employees.

In the further part of the research, the respondents were also asked to indicate the factors affecting the improvement of the selected production process in their companies (Table 2).

Table 2. Factors affecting the improvement of the production process

Determination of the factor	Research group		
	Superiors [%]	Employees [%]	Total [%]
Applied technology	75	20	29
Staff qualification level	92	48	56
Quality control of the finished product	50	45	46
Machines, devices and tools used	42	72	67
Quality of raw materials and materials	25	22	22
The speed of detecting discrepancies in the finished product	29	15	17

Source: own study

The most often indicated factor by the respondents as a feature influencing the studied process in the context of its improvement is possessing the appropriate technological base (67% of responses). At the same time, this factor was more often indicated by employees than by superiors. Another factor

necessary to implement improvement actions is the possession of suitably qualified staff (56% of indications). This factor was indicated by over 90% of superiors, while in the group of linear employees this factor was chosen by 48% of respondents.

In addition, respondents were asked to list barriers that, in their opinion, negatively affect the implementation of improvement measures. Among the answers listed in the study (ie: lack of investment and product incentives, difficult access to specialists and advisers, difficulties in accessing information on technical innovations, lack of suitably qualified staff, lack of time, insufficient technical base, no need to implement improvement actions, lack or incomprehension of procedures for reporting improvement actions), the largest number (58%) of the respondents said that there are no clearly formulated notification / selection / implementation procedures for the proposed improvement actions. Another barrier often indicated by the surveyed is difficult access to specialists and advisers in the field of process improvement (49%). In turn, only 18% said that there is insufficient technical base.

The model of initiating improvement actions

The processes of the improvement area should be implemented at particular management levels and coordinated by the department designated for this purpose. The key function in initiating improvement activities should be performed by a decision-making body. Its task is to define the organizational areas in which improvements are needed (Fig. 1). The decision to examine the needs of improving the processing process and the conditions for its implementation is in this case the first stage on the way to improving the organization. In searching for new solutions, the key role in the improvement process has both internal and external sources of information.

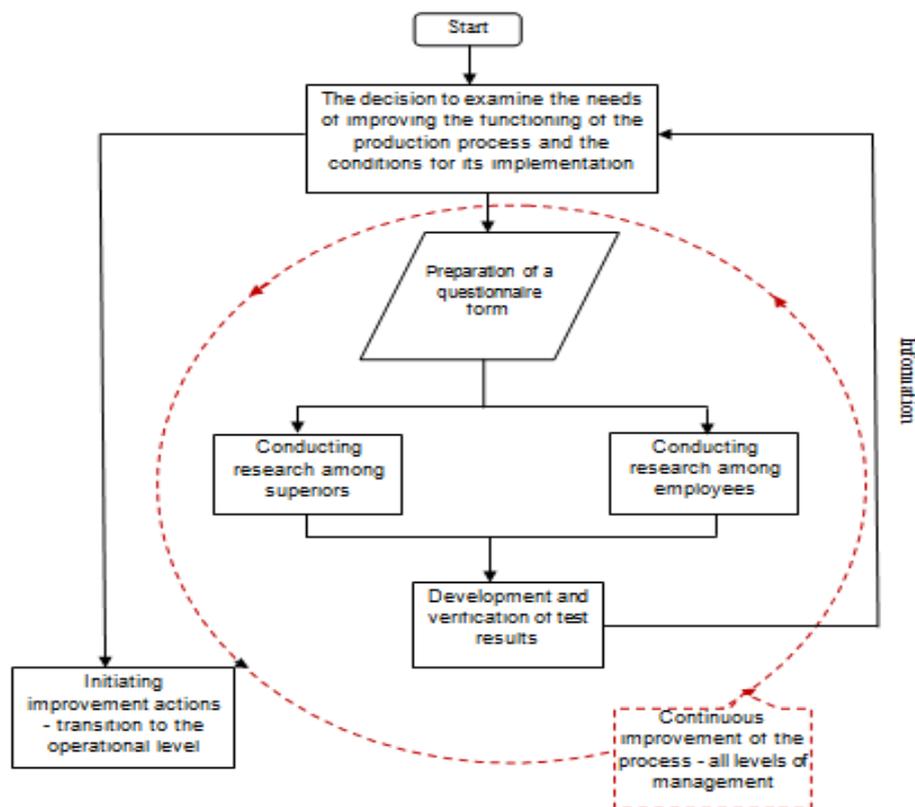


Figure 1. Model of initiating improvement actions

Source: own study

In the case of external sources, customer opinions and assessments play an important role in the improvement process. Internal sources of improvement, such as: knowledge, creativity and, above all, involvement of staff, are also significant. In this case, both knowledge and skills contribute to improving the system of offering products and providing services at the highest level. The search for appropriate methods of obtaining information on the needs of improvement and development in the

area of processing should start with understanding the course of the process and identifying all activities occurring in the production cycle. Those activities that do not contribute to achieving the final effect and do not add value to the client, should be also recognized and then reduced or excluded. To this end, developing a proper set of questions and referring them to operational staff and their supervisors, can be a starting point for improving and enhancing the quality of services offered, in both areas – the processing area and the area of the entire functioning of the company.

Discussion

Undoubtedly, every company striving to improve its improvement activities and a more complete matching to market needs should undergo a detailed analysis of the functioning of the improvement management system itself. In the analyzed case, it is necessary to properly develop appropriate procedures for introducing improvement measures / methods and to give activities in the scope of improving a suitably high priority. The conditions of correctly implemented changes in this area include: setting a team of employees who will be responsible for training in improvement (methods and tools of quality management), understanding the need of improving and implementing it for each workplace, improving the system of information flow between different levels of organization, developing and disseminating a rationalization questionnaire, developing a suitable motivation system for each of the employee groups.

The originality of the introduced changes in the processes of elaborating and implementing research regarding the opinion of the functioning of given areas, may be the basis for achieving a competitive advantage on the market. Therefore, the company must apply such a unique set of tests, adapted to its capabilities and needs, which is not used by its competitors.

Conclusion

Due to the volume framework of the study, only selected results of the study were presented. However, they confirm the dissonance that arises in the perspective of line workers and managers regarding the continuous improvement of selected areas of the company's operation (especially the chosen production process). The confrontation of test results received from two groups of respondents is needed. It gives the basis for initiating improvement activities, which is shown in the form of the proposed model. Of course, the model is quite general, but it takes into account the need to involve management and line employees in the process of continuous improvement tasks.

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ORGANIZATIONAL LIFECYCLE OF CAR DEALERSHIPS IN HUNGARY

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Abstract: The passenger car market was one of the most successful sectors in Hungary after the political transition. After many successful years, it became one of the biggest losers of the economic crisis in Hungary; albeit difficulties in the sector could be seen even before 2008, due to bank loans and overcapacities. The main objective of our research is to introduce the Hungarian passenger car market and describe the lifecycle of different car dealerships in Hungary. In the present publication, we examine lifecycles based on two single-brand car dealers of Hungary and the impact of the crisis on them. We explored and assessed the enterprises based on the lifecycle model of Adizes. Our research was conducted based on in-depth interviews with the managers of dealerships. The first results showed that the lifecycle stages of the dealers in the passenger car market have easily visible stages with special features, and these results showed the differences between different price categories of cars.

Keywords: car dealerships, car sales, lifecycle models, economic crisis

Introduction

The automotive industry plays an important role all over the world, due to its significant importance in transportation and everyday life. The passenger car market of Hungary is not among the best in Europe. According to the latest data (ACEA, 2018) the EU average counts 573 vehicles per 1,000 inhabitants and this number in Hungary is only 377 (Poland: 628, Czech Republic: 559, Slovakia: 438). The number of new passenger car registrations in Hungary was only 10 per 1000 inhabitants in 2016, compared to the EU average of 29, and the Visegrad countries (Czech Republic: 25, Slovakia: 16, Poland: 11).

In Hungary, the development of the automotive sector and the car trade started in the beginning of the 1990s, the tendency of growth was stable and the development of the sector was very fast, due to the changes of the consumers' needs and the very favourable credit constructions.

The basic objective of our research was to explore and analyse the background of the car dealership industry and the lifecycle of the Hungarian car trading enterprises from the beginnings until present, describing the differences and similarities of different car brands and car dealership types. Based on the results of the in-depth interviews interviewing the owners and managers of the car dealerships we described the main stages of the lifecycle of these companies with a special focus on one-brand car dealerships working in Hungary.

Literature review: research background and methodology

For conducting the literature review, we focused on the literature sources from Central and Eastern European countries, as these countries have very similar economic, social and historical background. During the desk survey stage, the keywords and phrases of “car dealership”, “passenger car” “automotive sector of CEE countries” were used for searching in international literature databases and libraries. The literature review has a triple objective: firstly, to describe the economic and social background of the automotive sector and car dealership industry in Hungary, secondly, to give an insight into the used methodology of professor Ichak Adizes, and thirdly, to describe the methodology of the research.

Research background: Hungarian car dealerships

The development of the Hungarian automotive sector – both car production and car trade – started after the political and economic transitions in the beginning of the 1990s. The Suzuki, the Opel and the Audi settled down in Hungary and started the production (Humphrey and Memedovic, 2003, Kemenczei, 2010). In 2012, the Mercedes also started its production in Kecskemét. The foreign direct investments played an important role in the development of the automotive sector in all Central European countries (Radosevic and Rozeik, 2005; Jakubiak et al., 2008; Pavlínek and Zenka, 2011). Besides bringing the technology investments, the international car manufacturers brought their

research and development strategies as well, and the close to the new car manufacturing plants research centers were also established and started their work (Szendi, 2016).

Parallel to the car manufacturers, the big car brands also settled down in the country during the 1990s. Most of the representatives of the different car brands had previous experiences in the automotive sector, as many new car dealership owners worked as car mechanics, therefore they had a good professional background and professional relations.

The number of new passenger car registrations showed an intensive increasing tendency in the 2000s due to the good credit constructions and marketing campaigns (Demeter et al., 2006), the size of the domestic passenger car fleet reached the 3 million in 2009 (Pásztor, 2011), but the economic crisis reached Hungary as well, and the car market collapsed.

Based on the data of the GÉMOSZ (the Hungarian Association of Automobile Dealers) in the middle of the 2000s, before the outbreak of the crisis, 1100 car showrooms dealt with the trading of new cars, the number of their employees was 30-35 thousand heads. This numbers decreased dramatically In 2011 the number of car showrooms was only 722, owned by 329 owners. The biggest loser of this process was the Suzuki, which preformed the highest number of sales and had the most showrooms: from the 160 Suzuki showrooms, only 50 survived and worked in 2011. The crises caused the same impacts in the neighbouring countries as well (Winter, 2010; Van Biesebroeck és Sturgeon, 2010, Fortwengel, 2011).

The decline of the new car registrations is shown by *Figure 1*. As it is visible, a slight but stable development can be detected in the past few years, which indicates a promising and more stable future of the sector (Datahouse unpublished data, 2017).

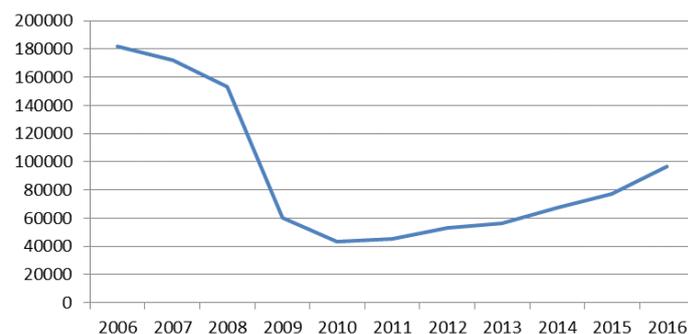


Figure 1. Number of new car registrations (2006-2016)

Source: own work based on Datahouse data (unpublished)

The number of the car showrooms, the brand dealerships and the number of the owners seem to be stabilized after the crisis. In 2017, 688 car showrooms worked in Hungary, (showrooms are traders where only one brand are sold) 399 car dealerships worked, where one, or more brands are sold according to their contracts, and the industry is concentrated in the hands of 234 owners. *Figure 2* shows the stabilization process displaying the main data of the Hungarian automobile trading sector.

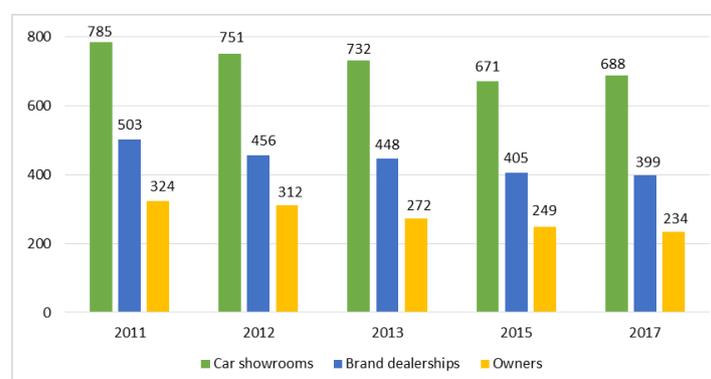


Figure 2. Number of car trade system in Hungary (2011-2017)

Source: own work based on GÉMOSZ (2018)

Top 15 car brands in Hungary are following: Suzuki, with 13% market share, Ford (nearly 10%), Skoda (9%), Opel (8,8%), and Volkswagen with 7,3% market share. The German premium brands (Mercedes, Audi and BMW) show a market share between 2-3%, the Hungarian customers prefer Toyota, Dacia, Renault, Kia, Nissan and Hyundai, which are before the German cars (GÉMOSZ, 2018).

Corporate lifecycle model of Adizes

Lifecycle models describe the different stages of corporate life. All organisations have a lifecycle and they undergo predictable stages as they grow and develop. Lifecycle models show the life stages of the enterprises and organisations as a sequence of different stages, which are absolutely based on each other. These models determine the general features of the different stages, and also summarise the different operational and managing problems of each stage (Illés et al, 2015). The model of Adizes describes the developing and declining stages of the organizations. The model is visualized by *Figure 3*.

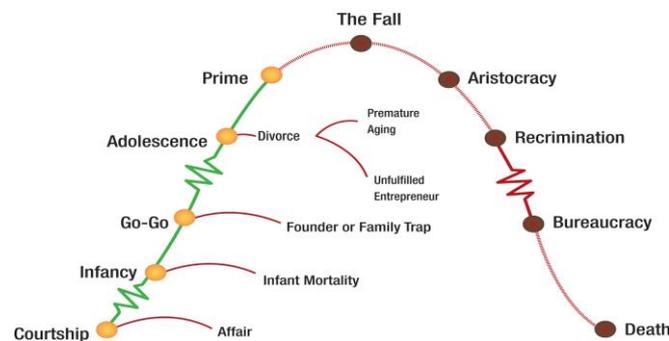


Figure 3. Corporate lifecycle model of Adizes

Source: <http://adizes.com/wp-content/uploads/2014/06/Adizes-Lifecycle-Graphic-300.jpg>

The developing stages of enterprises are visualized alike the life of living organisms, i.e. they refer to and show similarities with the life of human beings. The courtship stage is the period prior to the establishing of the enterprise, where the idea is generated and the preliminary steps are done. The infancy stage is the “new-born” life of the companies, where the constant money flow and continuous care is needed. The go-go stage is the early childhood of companies, when they try different challenges to find their stability. Adolescence is the teen age of enterprises, when the owners should share the responsibility with selected co-workers, who are experienced enough, in order to be more and more stable. The target age is the prime stage, when companies are successful adults, and this stage is the optimum, where they should stay for long period (Adizes, 2004). The managers role and tasks are continuously changing through these stages (Bahrami et al., 2016) as well as their strategic approach (Nosratabadi and Illés, 2016).

Research methods

We conducted in-depth interviews for exploring and analysing the lifecycle stages of Hungarian car dealerships. At first, we differentiated the car dealers according to the number of their brands: one-branded and multi-branded dealership groups. The second grouping was done according to the number of locations. In this paper, we focus on single-branded dealerships with one locations of selling.

After preliminary e-mails and telephone discussions we conducted the personal in-depth interviews with 6 owners of Suzuki brand dealerships and 5 owners of Volkswagen brand dealerships. This represents 20% of Suzuki one-branded locations (31 in total) and 100% of Volkswagen one-branded locations (5 in total). Of course there are more dealerships in the country, but this paper focuses only on single-branded and one-location enterprises.

The questions of the interviews covered the following topics, each questions were based on the characteristics of the different lifecycle stages of the Adizes model.

- Sources of the idea and opportunity, objectives of the owner by establishing the company,
- Tasks and work in the first period, problems and challenges occurred, solutions,

- Tasks and methods in the growing period, problems, challenges and solutions,
- Formalization questions, hierarchy development and structure of the company,
- Impacts of the manufacturers and importers on the managerial decisions and management of the company,
- Impacts of the economic crisis on the company, steps of crisis management, ,
- Present situation, future goals, tasks and challenges.

Results and discussion

The owners of the dealerships (with one exception) have already worked in the automotive sector as car mechanics, so their professional background have made a proper base for starting the enterprise. The high interest of the car manufacturers and importers in the Hungarian market could build the first steps for the common work. Thus, the first stage of Courtship was similar in all examined companies, as the idea and the opportunity was given at the beginning of the 1990s and the former car service provider entrepreneurs started their new role as car dealers. The main problem of the first stage (Infancy) is the lack of capital and cash-flow problems. This problem could be detected in all companies. Entrepreneurs needed high level of investments and high amount of money for establishing the showrooms and the brand services. For financing the investments at the location, the entrepreneurs used development loans and other credit constructions. Because of the intensive interest of the customers, they easily reached the first step of success: the realization of their idea. The main goal of starting the business was to provide costs for their and their families' living.

In the Infancy stage the number of sold new cars increased dynamically, the group of consumers was given, because of the former professional and consumer network of the entrepreneurs. The biggest challenge for them was to find the proper brand, and some of the entrepreneurs started with trading more brands in the first years. The other general problem was the problem of financial liquidity.

A special feature of the car dealerships is that they started the formalization of the company in the infancy stage, as the functional fields (i.e. trade and service provision) in this industry are basically separated. The management was led by the owner, and only small responsibility was given to the co-workers.

After the first hard year, the opportunity for growing was opened, and companies started to expand and increase the number of sales. The higher speed of growth means that the enterprise enters to the next stage, the go-go stage, which main features are the high speed of growth, the improved self-confidence. The most serious problem of this stage is that the management with all tasks are built on one person, the owner itself. Extra challenges occurred for the car dealerships in the beginning of the 2000s: the dramatic increase of sales drove the companies into a chaos situation, which became a key problem in each examined companies.

In 2008, the economic crisis appeared in Hungary as well, and the whole car trade industry collapsed because of a threat coming from the external environment. The number of sales decreased dramatically, the showrooms were closed and the enterprises should find new market for themselves, e.g. service providing as a path of survival.

Nowadays the signs of slight increase can be seen, and the companies may follow their development path under normalized circumstances. New challenges that they have to face are the lack of experienced employees, lack of professional education, but the owners are very optimistic about the future.

Conclusion

The results of our research highlighted that the lifecycle of car dealership show a many similarities, because they work under much formalized market conditions, where the characteristics and the opportunities are strongly determined or influenced by the car manufacturers or importers.

There are well visible differences between the examined two brands: Suzuki represents the cheaper price and lower category of cars which is available for a vast number of consumers, while Volkswagen is for consumers with higher needs and more money for spending. At the Volkswagen, which represents the higher price category, the financial investors have also appeared, and there were significant differences in ownership as well. While Suzuki dealerships are represented mostly by

family businesses, behind the Volkswagen dealerships there are more owners in the background. There were differences in the number of employees as well, and significant differences were found in the requirements of importers and producers (for example, the existence of quality assurance systems is a must for Volkswagen dealerships, but it is not compulsory at Suzuki). These features suggest that the lifecycle of the enterprises dealing with different brands may follow different directions in the future.

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MANAGEMENT OF THE PERCEPTION OF SERVICE QUALITY IN RESTAURANT INDUSTRY

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Abstract: Service activities in the restaurant sector assume a high degree of contact and coordination between employees and guests. It is generally considered that many managers aim to avoid the failures and enhance customer perceptions. It follows that the problem of managing service quality perceptions in the restaurant industry is one of the most crucial in the Almaty region. According to the data of the Committee on Statistics of Almaty city of 2017, today up to ten restaurants are registered and opened monthly. The restaurant industry is developing, acquiring new qualitative features and new impulses of its development, essentially expanding the field and the "rules of the game" in the economy of the transition period. Many new enterprises joined the restaurant business, many of whom moved to the higher echelons of activity, organizing individual or complex enterprises. However, the core issue of the tendency of closing the restaurants after 6 months' work is that of poor management.

The purpose of this paper is to identify what the service quality in the restaurant industry is and how to manage the customer perceptions of service quality. The objective of the research was the "Ratatouille" restaurant. The subject of the study was the history of the establishment of the restaurant "Ratatouille" and the corporate culture, forms of quality control of the service; the work of the planning department and the analysis of marketing research.

Keywords: Almaty, customer perceptions, restaurant management, service quality

Introduction

The development of statistical approach to quality control began in 1920 in the USA, when Walter Schuhart (1891-1967) first applied statistical methods of the measurement and quality control (Gass, Assad, 2004, p. 38-39). His research led to the emergence of the concept of statistical quality control. The importance of his work for the general management theory has shown that the key issue for better management is a statistical study process of production (Best, Neuhauser, 2006, p. 142-143).

Another American specialist in quality who is no less famous is an academician of the International Academy of Quality (IAC) Joseph M. Juran. His book "Handbook for Quality Control" was published in 1951 in the United States, that moment has become fundamental beginning of the concept of "quality management". One of the most significant results of his work was a clear understanding that quality has to be concerned not only with workers, but also with top managers and the entire organizational structure of enterprise (Best, Neuhauser, 2006, p. 142-143).

The basic challenges of management are then pointed out as the current enhancement of a quality management plan where for strategic management it contains establishing that these strategies are performed and estimated on a permanent framework whereas for operational management the primary problems refers to the management of moment's of truth as well the management of internal collaboration, internal promotion of the worker capabilities and experience and the internal connection (Fitzsimmons, Fitzsimmons, 1994, p. 14-17).

As it is presently clear, from the client viewpoint, service quality is decided by the result between client desires and client encounter amid service delivery, what is not however clear is what is influencing the two. Grönroos demonstrated that for each component of seen service quality (Expectations vs. Encounter) there are basic variables influencing the result of the two; seen service quality.

To begin with of all, as can be seen from Figure 3, anticipated quality is determined from external factors which together make a picture of what is to be anticipated and how this is to be expected. As seen, these components infer from outside communication from a company to the client through showcasing campaigns and programs, the picture make by communication from peers from word to mouth counting social platform communication and in conclusion completed by the needs of the client itself.

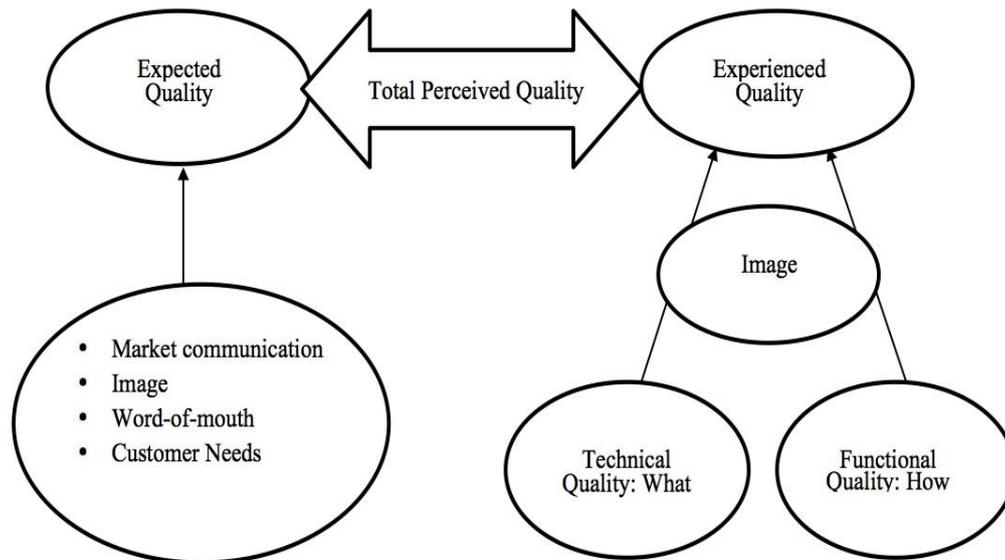


Figure 1 - Total perceived quality

Source: Grönroos, 1990, p. 101

As illustrated in the (Figure 1) total perceived quality derives from expected and experienced quality. Market communication, image, word-of-mouth communications and customer needs are crucial in to form the expected quality, while experienced quality is determined by technical and functional quality, meaning what and how of the quality. Experienced quality will ultimately create an image of the company, which in turn would be expected from the customers.

Customer expectation and customer experience occurring because of service delivery determine the perceived service quality. However, it is not quite clear what factors affect expectation and experience of the customer.

As it was mentioned before, customer experience is one of the determinants of perceived service quality. Quality experience depends on two interrelated factors or dimensions, which are Technical and Functional dimensions. The technical service is defined as the process of interaction and the consequent outcome between the company and the customer. The quality of the product during the service encounter can also be perceived as part of the technical dimension (Panwar, Upendra Singh. 2016, p. 33-35). The technical aspect during the service encounter in restaurant sector might be how maitre d'hotel encountered with the customer and what kind of impression was left after the encounter can affect the overall experience (Rayner & Lewis. 2016).

How customer received a particular service represent the quality of the process. For instance, did maitre d'hotel know precisely what to do and how to encounter with the customer? Was he or she polite? These are some of the factors, which can strongly influence a perceived customer experience. It is worth mentioning, that it is not clear which factors influence the expected quality the most among other related factors. More research is needed in order to find out these factors.

Parasuraman made a proposal of some crucial determinants where customers base their assumptions about the service quality, which are:

- Tangibles: equipment, physical facilities and the appearance of the personnel
- Reliability: the capability to deliver the service accurately;
- Responsiveness: the readiness to help and assist the customer;
- Assurance: mutual trust and confidence between the employers;
- Empathy: individual approach to the customer (Hayes, 2008, p. 12-15).

The factors of reliability, responsiveness, assurance and empathy can only be determined during the process of service encounter. While tangibles are, the determinants related to the technical quality. Technical aspect of service quality in tangible determinants is also complemented by external or social communication.

There are also some additional standards and criteria for the assessment of service quality (Kimber, 1997, p. 154):

- Skills and professionalism: the professional knowledge and appropriate skills possessed by the employees as well as various important intangible resources needed for solving different issues that may arise while satisfying the customer;
- Reliability and trustworthiness: in order to meet the expectations of the customer, promises need to be kept and the good image of the company to be maintained (Kimber, 1997, p. 15).

Expectations are measured in comparison with the actual service or product being delivered. It is common sense that customers base these assumptions on different technical and functional results or outcomes. Nevertheless, the actual management of customer perceived service quality a sophisticated process, which demands comprehension and understanding of the definition of perceived service quality.

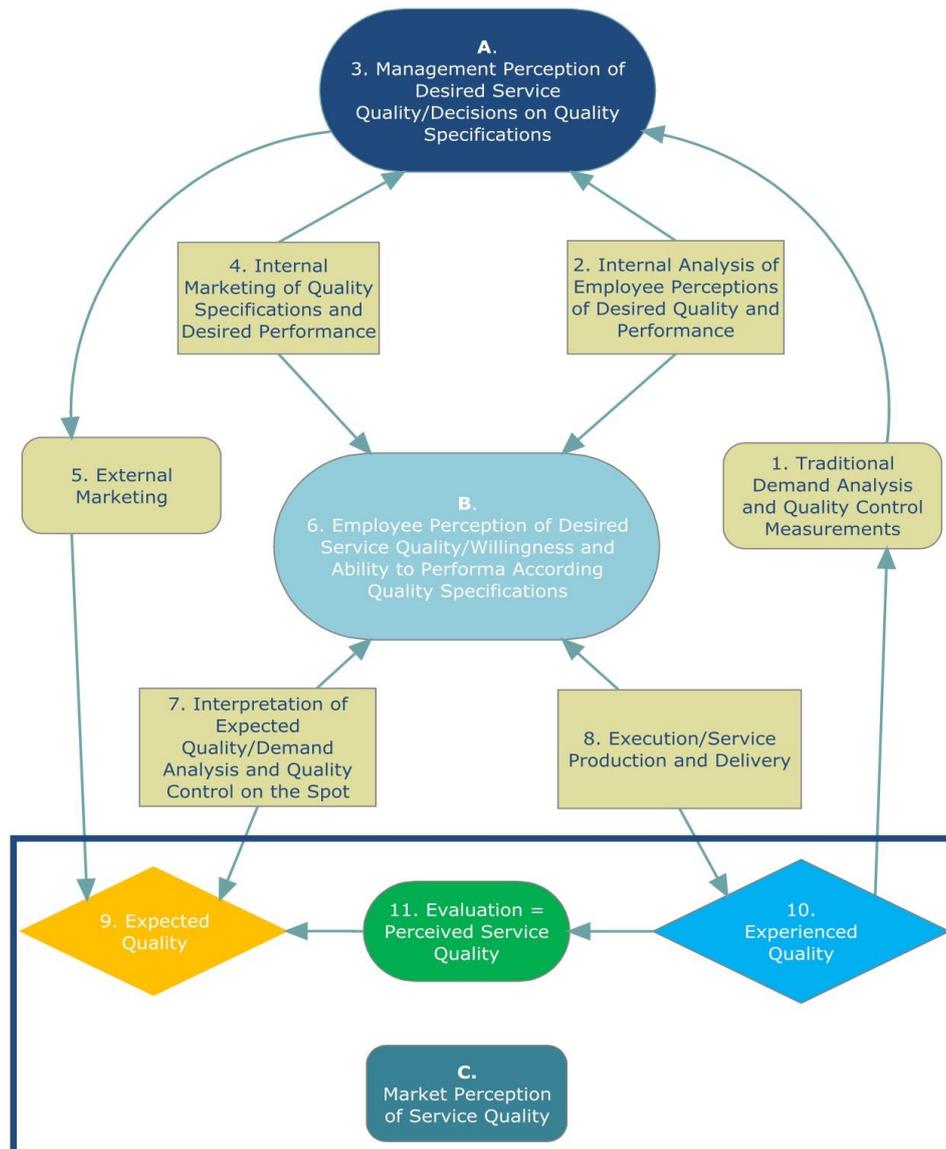


Figure 2. A general framework for managing service quality

Source: Kimber, 1997, p. 101

The above figure indicates the most common framework for managing service quality. As indicated in (Figure 2), management and employee perception of service quality and their willingness and motivation to perform the tasks depend on various interrelated processes or factors. There are different parties, which are involved in the process, which are management, employees and customers. Management sets certain standard, rules and policies, which have to be followed by employees.

Analysis of the market demands takes place after the customer experience, so to understand perception of service quality. Later on management can make a decision on the specifications of quality and management instructions. The next important step is the actual implementation of quality specifications, which come in the form of policies or regulations. All these procedures are reflected during the process of service or product delivery.

Employees are tasked with meeting the standards, which are set by the management. Employees differ based on their skills, motivation and knowledge. As a result, their perception of service quality would also differ. Employees are responsible to react to the wishes and demands of the customer (Oodan, 2003, p. 42-43).

Finally, customers dictate whether their expectations formed by external communication are met or not. Different customers have different expectations of quality, their experiences also differ. This framework involving management, employees and customers presents important vision in the roles assigned to each party and how they interact with each other as well as affect one another.

The impact of external communication and social interaction on the expectations of the customer needs an explanation. External marketing has to be always re-assessed, because all the marketing strategies and quality specifications need to be based on valid and fresh information. The continuous reassessment would indicate if expectations created by the external communication match with the actual service, because over promising would negatively affect the experience outcome (Oodan, 2000, p. 42-43).

Measuring service quality

SERVQUAL is a scale that can be useful to in order to better understand the expectations of the service and perceptions from the point of view of a customer (Oodan, 2000, p.23-26). These findings help to the development of quality service and internal motivation. The scale is mainly based on 10 dimensions relating to service quality as well as two interrelated statements. One statement is measuring and assessing expectations within a service category, in our case, restaurant sector. The second statement is assessing the service quality perception of a specific firm, in our case, specific restaurant. SERVQUAL is to be used to find out underlying weaknesses and strengths of an organization's service quality (Parasuraman, Zeithaml, Berry, 1986, p. 23-26).

It is interesting to notice that; front line staff has no considerable influence on how service specifications are translated or interpreted. There might be a gap between support staff's perception of the task and the expectations of the front line staff (Parasuraman, Zeithaml, Berry, 1986, p. 23-26).

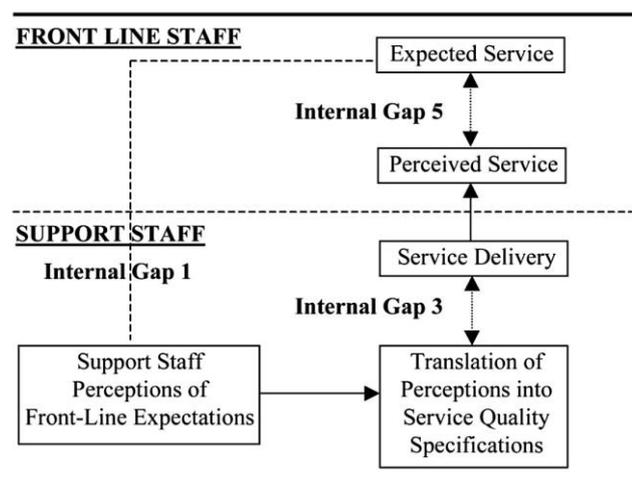


Figure 3. Internal Quality Gap Model

Source: Frost, Kumar, 2000, p. 38-39

Figure 3 shows the internal quality gap model, and it indicates that cooperation between front line staff and support staff is important for the smooth running of the company and execution of the tasks. The gap might arise from between support staff and front line staff in terms of perceptions and expectations (internal gap 1). Interpretation of perceptions into service quality specification and the actual process of service delivery are also not immune to gaps (internal gap 3). There is also might be a difference between the specifications of the service and how service is actually delivered. Key contributing factors to this gap are lack of teamwork, lack of perceived control, inappropriate supervisory control systems, and role conflict and role ambiguity.



Figure 4. Contributing factors to Internal Gap 3

Source: Frost, Kumar, 2000, p. 358-377

The above figure shows some of the key contributing factors to before mentioned Internal Gap 3 between service quality specifications and service delivery. The factors are lack of teamwork, poor employee and technology job fit, lack of perceived control, inappropriate supervisory control systems, conflict and ambiguity in roles

Research methodology

For providing this study used primary data. The object of research was the restaurant "Ratatouille", located in the heart of Almaty city. The questionnaires of research were conducted based on comprehensive literature surveys (Attachments). The authors of the questionnaires ensured and guaranteed absolutely anonymity and confidentiality of each participant. The SERVQUAL model was adopted to design the research questionnaire. This model consists of four factors: Reliability, Responsiveness, Competency, Courtesy and each of these factors involves different variables. The questionnaire includes 36 questions for employees and 12 questions for customers. The answers of respondents were assessed on a six-point Likert scale rating from 1 (strongly disagree) to 5 (strongly agree). Additionally, two more extra questions were used to make questionnaire more detailed. The whole process was separated into 3 stages.

The stage 1 - it was conducted a small survey-questionnaire, in which guests were able to select the most important factors related to service quality of the "Ratatouille" restaurant. The first questionnaire (Appendix 1) was provided including Parasuraman's ten dimensions of service quality. According to this questionnaire there were responded totally 60 people.

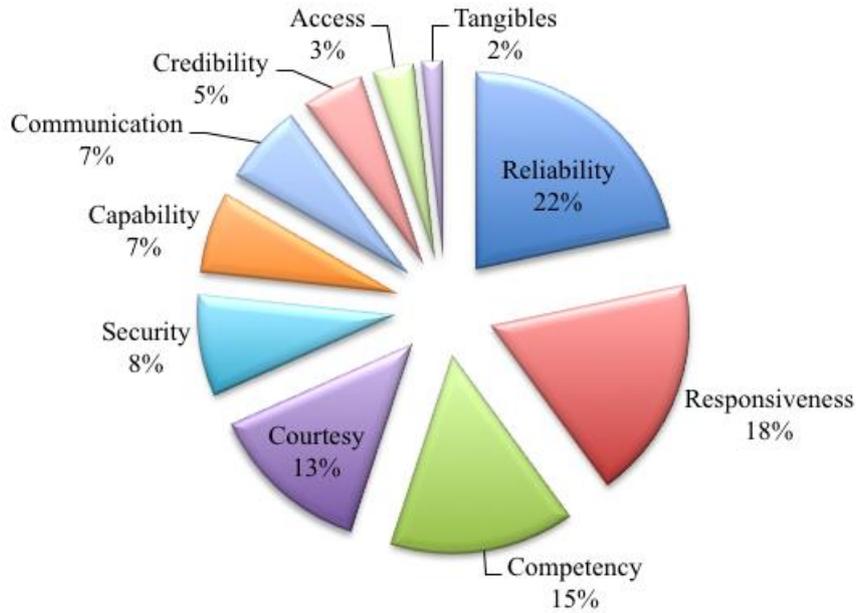


Figure 5. Factors affecting customer perceptions on quality

Source: Own study

The stage 2 - the scope of the study was restricted for a more in-depth scan. The results of first survey have shown that the most significant factors for customers of ‘Ratatouille’ restaurant define courtesy, reliability, competency and responsiveness. Further, according to these 4 main factors there was designed a pair of questionnaires, consisting of various situational questions for employees and customers. Pearson’s correlation was a tool for analyzing direct connection of customer perceptions and service quality perceptions from employee’s perspective. The main objective of this mini-survey was to draw a parallel of two categories of subjects in hospitality industry and compare points of view of service quality. (Figure 6) illustrates the ideal model of service quality through 4 basic factors (Competency-Responsiveness-Courtesy-Reliability).

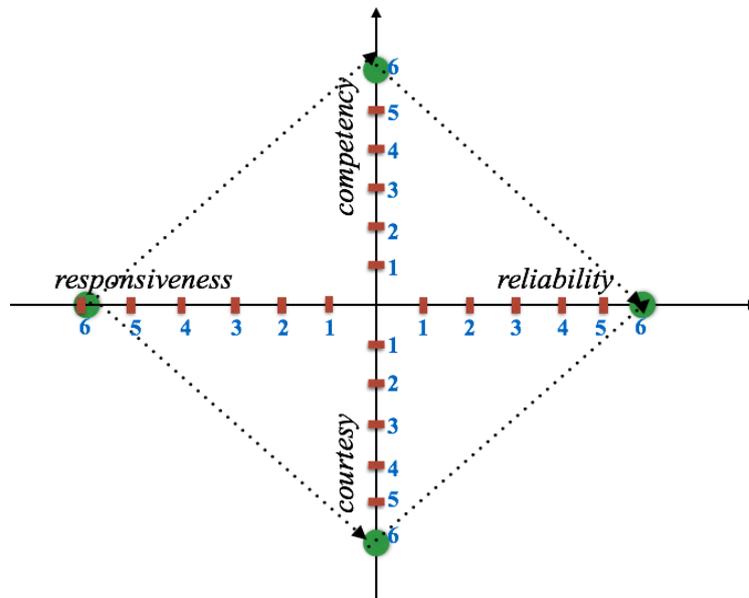


Figure 6 - Ideal SERVQUAL model

Source: Own study

The above (Figure 6) describes the excellent parameters that have to be achieved in the future (example to follow). In addition, Figure _ demonstrates the data of service quality from questionnaire of employees of the “Ratatouille” restaurant at present. The main subjects of this questionnaire were chosen waiters, because particularly they have direct contact with consumers and their performance makes the most important impact on delivery of quality service.

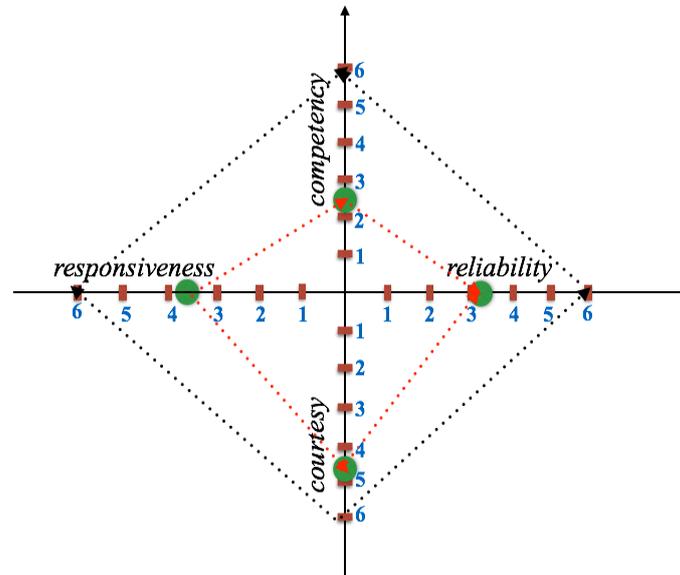


Figure 7 - SERVQUAL model according employees' perspective

Source: Own study

For recent time the restaurant, "Ratatouille" does not match with results of indicators of high quality service of Ideal SERVQUAL model. The difference between ideal and real data illustrated on (Figure 7). To fully demonstrate the proportional changeability of the two variables of customers and workers perspective on service quality, it was decided to use the method of Pearson correlation coefficient. There is a detailed calculation bellow:

Table 1 – Calculation of correlation coefficient

SERVQUAL dimensions	Employee values (EV)	Customer values (CV)	EV	CV	EVxCV	EV ²	CV ²
Reliability	3,33	3,2	3,33	3,2	10,656	11,0889	10,24
Responsiveness	4,33	3,87	4,33	3,87	16,7571	18,7489	14,9769
Competency	3,67	2,68	3,67	2,68	9,8356	13,4689	7,1824
Courtesy	4	4,87	4	4,87	19,48	16	23,7169

$\sum EV$	$\sum EV$	$\sum CV$	$\sum(EV \times CV)$	$\sum EV^2$	$\sum CV^2$
15,33	15,33	14,62	56,7287	59,3067	56,1162

Source: own study

$$\text{Correlation (r)} = \frac{n(\sum(EV \cdot CV)) - (\sum EV)(\sum CV)}{\sqrt{[n\sum EV^2 - (\sum EV)^2][n\sum CV^2 - (\sum CV)^2]}} = 0,57221 \tag{1}$$

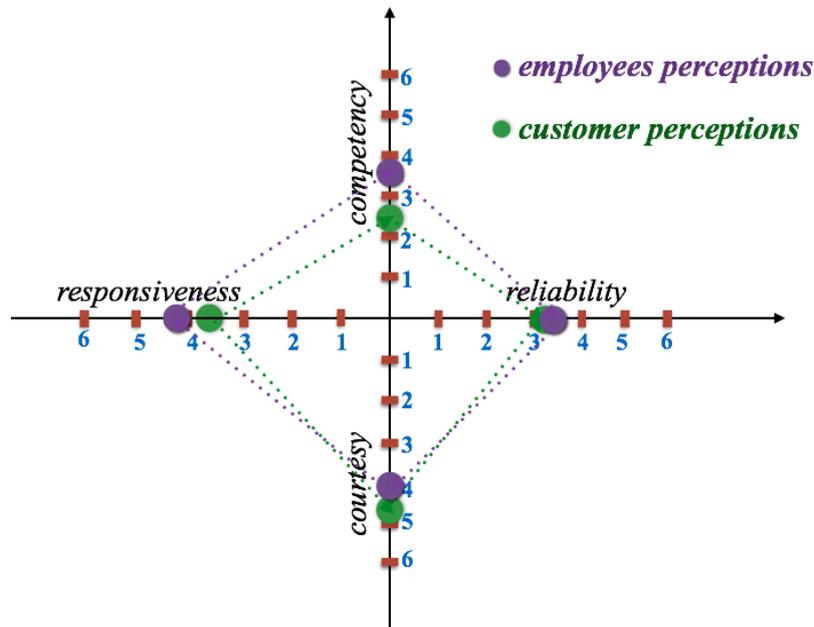


Figure 7. The difference between Customer and Employees perceptions

Source: Own study

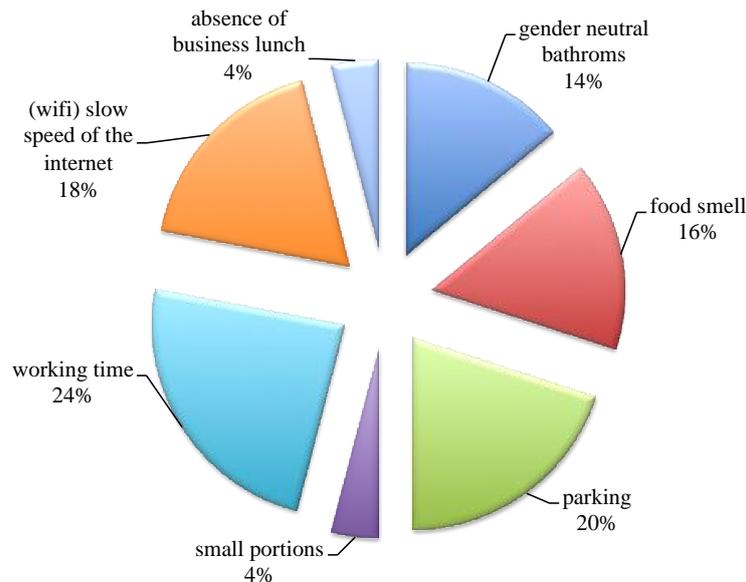
According to obtained data by Pearson's method, which was calculated on (Table 1) by Formula 1, it could be accepted that correlation between customer and employee perceptions of service quality of "Ratatouille" restaurant is strong, which proves the hypothesis that these two variables depend on each other. On (Figure 7) graphically demonstrated distinctions of two variables. Analysis indicates the average of both categories of subjects in hospitality industry regarding quality service is only a little bit above the average and it denotes that it is at long range from required rate. Nevertheless, nowadays hospitality sphere in Almaty city is growing up essentially. In addition, employees highly perceive that they have not been taken into account as extremely as their parts are significant and crucial in company's achievement and headway.

The stage 3 - at the end of the questionnaire, there were two vital open questions for customers, to write positive and negative factors of service of the restaurant "Ratatouille". More detailed information of both positive and negative aspects is presented below.

Implications of management customer perceptions of service quality

Management of customer perception was suggested to be implemented through proposals of solutions for negative and positive aspects related to the quality of service identified from two control questions of the survey. To begin with the process of managing customer perceptions, first needs to find out what are the concrete main issues of the service quality concerning the restaurant.

Negative aspects. The results of the interviewing are shown on (Figure 8), where 12 respondents emphasized on working time as a negative side. Because some people would like to have breakfast in the restaurant, but it opens only at 12 a.m. Another group of people complains about the closing time of the restaurant, because at the weekends they prefer to stay longer.



The Figure 8. Negative aspects of service quality of "Ratatouille" restaurant

Source: Own study

The next dimension that impacts on customer perception is parking near the restaurant. 20% responded customers protest that there is not enough of free space for all guests, particularly at lunchtime. Moreover, the owners of beauty salon next to "Ratatouille" restaurant do not allow leaving the car at their part of parking. 18% of customers are not well pleased with Wi-Fi-connection. Because of the fact that the most frequent guests are businesspersons who often arrange official meetings and dinners in "Ratatouille" restaurant, so their expectations of the Internet quality have to be met. Food smell from the kitchen also influence on guests perceptions, it contains 16% of unsatisfied clients who can not stand with the smell of fried fish or other different flavors that spread throughout the whole restaurant. The next point is related to gender-neutral bathrooms, 14% of the guests complain that women and men zone of the bathroom is not separated, which refers to discomfort of the clients. 4% of the guests would like to have an all included business lunch, which is absent in the restaurant. In addition, 4% of customers require increasing of the meal portions, because accordingly their thoughts small portions on big plates do not satisfy the consumers who pay good money.

All the problems related to the data above were analyzed and processed with the following solutions for managing customer perceptions:

- At the weekends working time can be prolonged for a few hours. And if we compare work time of restaurants, such as "U Afanasicha", "Parmigiano", "Manana", to be competitive with them "Ratatouille" restaurant has to set the same (or mostly the same) timetable like competitors.
- The parking lot should be comfortable both for owners of compact cars, and for owners of solid and oversized cars. To make parking zone wider, it is possible to arrange with the neighbor located firms. For example, with the beauty saloon, which was mentioned in the questionnaire.
- The quality of Wi-Fi must be developed by setting for example 2 routers (for each floor). Guests will be grateful for their communication with the outside world.
- A good public catering company from bad is distinguished not only by a rich choice of dishes and drinks on the menu and the availability of a classy chef. First, it is necessary to find companies that will make the project on ventilation, while taking into account the requirements and wishes of the restaurant's administration.
- The presence of a combined toilet can badly affect the perception of customers. There are two keys of this problem. The first one assumes to share toilet cabins by setting the signs of gender. The second solution for this issue will be making the whole bathroom only for women on the first floor, and for men on the second floor (or vice versa).

Highlighting positive factors or developing and upgrading them can also provide managing customer perceptions. The questionnaire revealed that, the most favorable perception for guests is provided by the presence of a kid's corner, theme parties with famous figures and life music and less

significant factors are promotions, discounts, special offers, hookah quality, comfortable conditions, and the presence of a summer terrace. The least impact on the guests is the ability to carry food with them and the availability of a place for smoking.

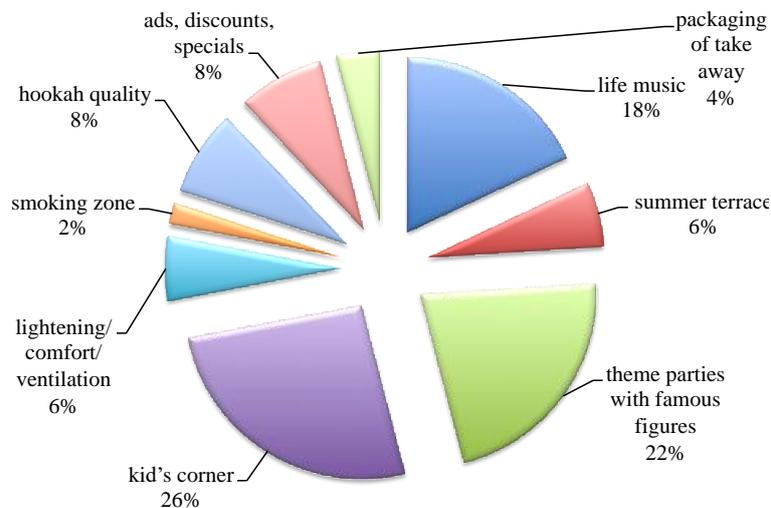


Figure 9. Positive aspects of service quality of "Ratatouille" restaurant

Source: Own study

The kid's corner should have toys for boys and girls, as well as places for creativity where it is possible for a child, for example, to draw. The kid's corner should be safe for children, and be in the visibility of the parents.

Thematic parties with well-known personalities attract visitors much. Nowadays thematic parties are popular and original. The guests noted that they try to keep track of when the thematic events will be held in the restaurant "Ratatouille" to visit, chat with new interesting persons and taste dishes that are not presented in the main menu. Thematic evening is usually held in one direction. It can be the style of a country, a movie, an event, a masquerade, a poetic evening, a culinary, musical themed evening, evening dedicated to some holiday.

For many people visiting a restaurant is not just eating, it is also a general impression and atmosphere, and music plays an important role in this. As a live music, can choose any format - from a string quartet to a modern band. It is important that the style of music and songs fully correspond to the format of the banquet. Live music can accompany guests throughout the evening: from a welcome cocktail party, if it is a banquet or some kind of event until the end of the evening.

Conclusion

In this study was provided and fully analyzed information about customer perceptions of service quality and various instruments of managing them in restaurant industry.

The survey explored that out of ten offered dimensions of Parasuraman SERVQUAL, were identified four the most important for guests of the restaurant "Ratatouille", such as «reliability», «responsiveness», «competency» and «courtesy». In addition, there was conducted comparative analysis of these factors from customers and employees perspective.

By providing a questionnaire for customers and employees with of questions interpreted for each subjects in its own way, was calculated the correlation coefficient of two dependent variables by using Pearson's method. The results showed a strong uphill (positive) linear relationship, which equals - 0, 57221.

The analysis of respondents' feedback suggested that the most crucial positive aspects related to customer perceptions of service quality were "arranging theme parties with famous persons", "nice kid's corner", "weekend nights with life music bands", which differ from other restaurants all over Almaty city. According these positive factors on service quality there were presented and widely described the methods by which it can be emphasized and upgraded.

Furthermore, there were performed solutions for negative aspects that affect service quality. By fixing the problems, such as “lack of room of parking zone”, “inconvenience of gender-neutral bathrooms”, “early closing time”, “smell from the kitchen” and “slow speed of the internet”, it can be radically changed customer perception about service quality for a better side. Additionally, making service quality in “Ratatouille” restaurant better will, in turn, not only enhance satisfaction of the guest, increasing customer loyalty and managing their perceptions, but also enlarge revenue management and improve restaurant’s image.

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LOCAL DEVELOPMENT OF INFRASTRUCTURE COMPETITIVENESS AND LEVEL OF INVESTMENT OUTLAYS OF EASTERN ADMINISTRATIVE DISTRICTS IN POLAND

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Abstract: In the conditions of globalization processes, the polarization of the competitiveness of administrative districts has deepened. Its causes include the lack of financial resources, infrastructure, environmental resources. The aim of the study is to analyze infrastructural competitiveness in relation to investment outlays using a synthetic measurement system. The analyses were carried out in the system of 101 administrative districts of Eastern Poland. The data for the analysis was obtained from the Central Statistical Office for 2010, 2012 and 2016. The investment outlays implemented depend on self-owned revenues and the possibility of covering these incur investment liabilities with the associated revenues. Competitiveness should be considered in terms of the spatial and organizational dimension. Less developed infrastructural regions do not attract much interest. The infrastructure is a unit advantage. Statistical surveys of administrative districts confirm the existence of disproportions in the area of infrastructural competitiveness. Its value ranged from 0.58 to 0.90 in 2010; from 0.60 to 0.90 in 2012 and from 0.60 to 0.90 in 2016.

Keywords: competitiveness, infrastructure, investment expenditures, synthetic measure, administrative district

Introduction

Territorial self-government plays an important role in creating local development. This results from statutory obligations that are imposed on local government units by tasks aimed at shaping the local environment and meeting the needs of local communities. Local development is the process of change - quantitative growth and quality changes of the local government unit and the local community, including the endogenous resources appropriate for this level of organization (Rosińska 2007, pp. 277-286).

The system of the local economy as a multi-element structure is influenced by many factors (including economic, financial, infrastructural, natural environment), dynamically changes over time. The degree of intensity of endogenous values of the region, as well as their structure and interconnections will shape the development process. Territory as an active entity, has its own organizational structure, which effectiveness may stimulate or limit the development of entities operating in it (Przygodzki 2016, pp. 83-97).

Competitiveness of the powiat should be considered at the organizational level as well as natural, economic and social, and infrastructural resources. Poviats less equipped with infrastructure do not arouse much interest, despite having interesting assets.

Infrastructure affects the growth of competitiveness and is an important resource for processes occurring in the local economy. The existence of technical and social infrastructure has a major impact on the quality of life of residents and the development of business entities and areas. The main barrier to infrastructure development is the lack of financial resources (Kocur-Ber 2011, pp. 29-37).

Financial resources are essential for the optimal functioning of local government (Oplotnik 2004). Expenditures of the powiat result from the area of public tasks. We divide them, among others, for expenses on own tasks, commissioned, for material or financial assistance for other local government units, current expenditure (ensuring the functioning of self-government bodies, targeted subsidies) and property (investment, purchase of shares, etc.) (Miszczuk, Miszczuk, Żuk 2007, pp. 62 -100). They are an expression of policy in the implementation of social and economic goals (Parsawek 2010, p. 240-241).

Dim, data, research method

The aim of the study is to analyze infrastructural competitiveness in relation to investment expenditures using a synthetic measure. The investment expenditures implemented depend on own revenues and the possibility of covering these investment liabilities with these revenues. The area of tasks of the powiat includes in particular the supra-communal social infrastructure (social assistance, social care, running hospitals, social houses), technical infrastructure (transport, public roads), public order and safety, construction supervision, spatial planning.

Account has been taken of the availability and comparability of data and the statistical criteria, variables describing infrastructure competitiveness and investment expenditure have been adopted. The analysis was carried out in the system of 101 poviats of Eastern Poland. Data was obtained from the Central Statistical Office for 2010, 2012 and 2016.

The assessment of the infrastructure competitiveness level of poviats was made based on a syntactic measure. The procedure for its construction included in the first stage the selection of diagnostic variables using the coefficient of variation and diagonal values of the reverse correlation matrix (Malina 2004, pp. 96-97, Zeliaś 2000, Dziekański 2017). The standardization of variables was carried out in accordance with the method of zero-universal uniorization for the stimulant:

$$z_{ij} = \frac{x_{ij} - \min_i x_i}{\max_i x_i - \min_i x_i} \quad (1)$$

for the distimulant:

$$z_{ij} = \frac{\max_i x_i - x_{ij}}{\max_i x_i - \min_i x_i} \quad (2)$$

where: $i = 1, 2, \dots, N$; $j = 1, 2, \dots, p$ (N is the number of objects (communes), and p - the number of features); $-$ means the value of the neutralizing feature for the examined unit, x_{ij} - means the value of the j^{th} characteristic for the given unit, \max - the maximum value of the j^{th} characteristic, \min - the minimum value of the j^{th} feature (Wysocki, Lira 2005; Dziekański 2016a)

The synthetic measure was based on the distance in real space with the Euclidean meter in accordance with the formula:

$$OE_{it} = \sqrt{\frac{\sum_{j=1}^p (1 - z_{ijt})^2}{p}} \quad (3)$$

If the value of the indicator was equal to 0, then the given commune would have the maximum value of the measure. The higher the value of this indicator, the worse the situation in the studied area (Tokarski 2005, Młodak 2006, Dziekański 2015, pp. 261-279, Dziekański 2017a).

Finally, the objects were classified, and the results were interpreted and verified (Dziekański 2016, pp. 79-91, Mioduchowska-Jaroszewicz 2013, pp. 127-140).

Investment expenditures and competitiveness

Local government, in order to meet the requirements of transformation and change, should take actions in the area of budget and investment policy (Johnson, Rahman 1992). These activities are becoming an important element of cohesion policy with access to public infrastructure (Clifton, Díaz-Fuentes, Fernández-Gutiérrez 2016).

Investments carried out by local governments directly affect the standard of living of the commune's residents. They enable business to other entities, attract commercial investors, which consequently becomes an impulse for the development of the poviat (Latin 2003). Properly planned, coordinated and efficiently implemented local development is shaped by the local social system (Parysek, 2001, p. 50). Investments in infrastructure improve regional economic performance and competitiveness. They can contribute to the improvement of production potential and support regional income (Cutanda, Paricio 1994; Kara, Taş, Ada 2016).

All expenditures borne by the poviat for the creation or reconstruction of assets are considered to have a positive impact on the development and situation of its residents. The analysis of the expenditure structure allows to assess the degree of involvement of local government resources for investment purposes. The number and scope of infrastructural investments carried out in the poviat depends on the possibility of obtaining financial outlays necessary for their implementation.

The region's competitiveness means its advantage or distance in relation to other regions. It is increasingly the result of a consciously undertaken and conducted strategy of competing with other regions (Klasik, Kuźnik 2001, p. 29; Kocur-Bera 2011).

Results and Discussion

The occurrence of certain elements in the studied area and their distance from the local and regional system as a disability position provides more or less tangible benefits from the location of the poviats in a specific socio-economic environment. The location of the unit in relation to the settlement and communication network is becoming a reality (Ossowska, Poczta 2013, pp. 187-195).

The attractiveness of the poviats of Eastern Poland in the aspect of infrastructure is poor, as shown by the values of the synthetic measure. Its value ranged from 0.58 (poviat city Białystok, the best unit, Podlaskie voivodship) to 0.90 (Parczewski poviat, the weakest unit, lubelskie voivodship) in 2010; from 0.60 (poviat city Lublin, lubelskie voivodship) to 0.90 (Parczewski poviat) in 2012 and from 0.60 (poviat city Białystok) to 0.90 (Parczewski poviat) in 2016. Above average value the measure (in subsequent years 0.82) was group A.

Table 1. Selected poviats of Eastern Poland according to the measure of infrastructural competitiveness in 2010, 2012, 2016

	2010	2012	2016
A very good	p.c Białystok 0,58 p.c. Lublin 0,61 p.c. Kielce 0,64 p. rzeszowski 0,70 p. stalowowolski 0,81	p.c. Lublin 0,60 p.c. Białystok 0,61 p.c. Kielce 0,62 p. rzeszowski 0,69 p. staszowski 0,80	p.c. Białystok 0,60 p.c. Lublin 0,60 p.c. Kielce 0,62 p. rzeszowski 0,69 p. ostrowiecki 0,80
	0,74 / 28	0,73 / 27	0,74 / 29
B good	p. brzozowski 0,82 p.c. Tamobrzeg 0,82 p. zamojski 0,84	p. ostrowiecki 0,81 p.c. Tamobrzeg 0,83 p. zamojski 0,84	p. buski 0,81 p.c. Tamobrzeg 0,83 p. zamojski 0,84
	0,82 / 30	0,83 / 29	0,83 / 28
C weak	p. bielski 0,85 p. zambrowski 0,86	p. biłgorajski 0,85 p. świdnicki 0,87	p. biłgorajski 0,85 p. wysokomazowiecki 0,87
	0,85 / 19	0,86 / 29	0,86 / 21
D bad	p. janowski 0,87 p. parczewski 0,90	p. bieszczadzki 0,88 p. parczewski 0,90	p. bartoszycki 0,88 p. parczewski 0,90
	0,88 / 24	0,29 / 16	0,88 / 23

p.c. – poviat city, p – poviat; three best units in group A and the weakest poviat in the group; in group B, C, D the weakest and best unit; the best and the weakest unit in the group of urban and terrestrial poviats; the average value of the measure in the group and the number of units

Source: own calculations based on data CSO BDL

A well-developed infrastructure favors the proper development of almost all areas of economic and social life. Shortages in infrastructure, on the other hand, reduce the investment attractiveness of a given area, which in turn intensifies the migration of people.

The average value of the synthetic infrastructure measure in the analyzed period is 0.82. The consistency of the synthetic infrastructure measure indicates the coefficient of variation, which was 0.08. During the period considered, the standard deviation slightly increased from 0.06 to 0.07. The slight variation in the surveyed units also confirms the value of the range, which in 2016 was slightly lower in relation to 2010 (0.30 - 0.32).

Table 2. Measures of spatial diversity of poviats of Eastern Poland in 2010, 2012 and 2016.

	synthetic measure infrastructure			investment expenditure / total expenditure		
	2010	2012	2016	2010	2012	2016
average	0,82	0,82	0,82	0,2	0,1	0,1
standard deviation	0,06	0,07	0,07	0,1	0,1	0,1
coefficient of variation	0,08	0,08	0,08	0,4	0,5	0,5
min	0,58	0,60	0,60	0,1	0 ¹	0 ¹
max	0,90	0,90	0,90	0,5	0,4	0,3
gap	0,32	0,30	0,30	0,4	0,4	0,3
slant	-1,71	-1,59	-1,55	0,6	0,7	0,6

¹ the level of measure slightly higher than 0

Source: own calculations based on data CSO BDL

An important factor ensuring both economic activation and an adequate standard of living conditions of society is well-developed infrastructure. From the compiled correlation coefficients, it can be concluded that the spatial diversification of the financial situation was stable in 2010, 2012 and 2016.

Table 3. Coefficient of correlation of the synthetic measure infrastructure of poviats of Eastern Poland in 2010, 2012, 2016

	Coefficient of correlation	
	Pearson's	Spearman's
OE 2010-2012	0,989	0,981
OE 2012-2016	0,993	0,986
OE 2016-2010	0,986	0,979
OE – WI 2010	-0,067	-0,080
OE – WI 2012	-0,315	-0,248
OE – WI 2016	0,009	-0,067

OE - synthetic measure, WI - investment expenditure / total expenditure, correlation coefficient significant with $p < 0.050$

Source: own calculations based on CSO BDL data

Analysis of the measure of the synthetic infrastructure of the poviats of Eastern Poland indicates that in the next years convergence (Pearson correlation coefficient 2010-2012) was 0.989 and 2012-2016 - 0.993. As shown in Figure 1, units are statistically similar to each other in the analyzed area of research, and the level of investment expenditure does not translate directly to the level of infrastructure.

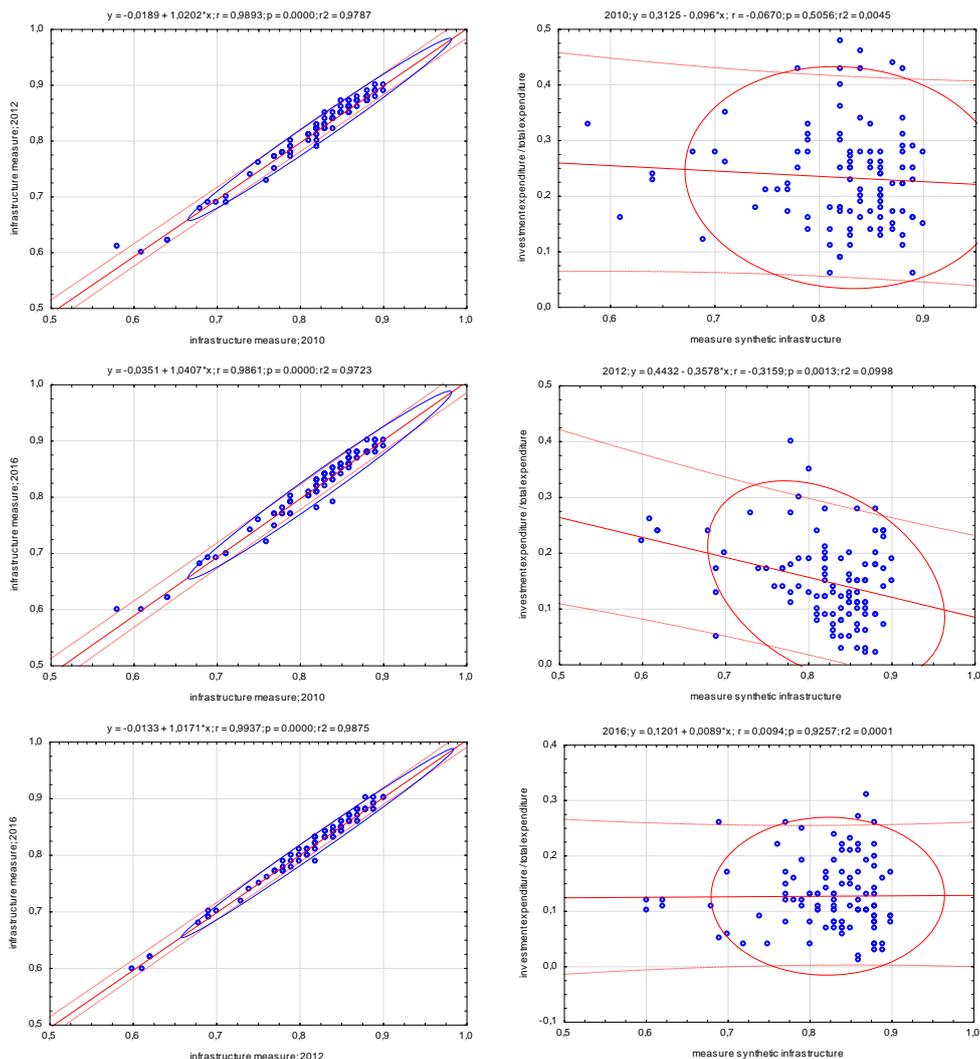


Figure 1. Diagram of the distribution of the synthetic measure infrastructure of poviats of Eastern Poland in 2010, 2012, 2016

Source: own calculations based on CSO BDL data

Conclusion

Investing in infrastructure is conducive to economic development, increases employment, increases social well-being and the safety of the welcoming community. Infrastructure creates a good climate encouraging investment in the regions concerned.

The management of the poviats requires significant changes, bringing the local government's activities closer to the conditions in which the private sector operates and the large amount of information necessary for correct decision-making.

Financial resources are one of the most important foundations of the activities of local government units, implementation by the self-government of public tasks both current and development. Territorial self-government manages resources aiming at satisfying the collective needs of residents. These resources are always limited and therefore should be managed in a rational manner (Adamek et al. 2001, p. 133).

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RISK MANAGEMENT IN AGRICULTURE

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Abstract: The paper deals with risk management in agriculture. It focuses mostly on the issue of viticulture and wine production in the Czech Republic. It describes the current situation and possible solutions. One of the ways to deal with risks is to avail of insurance. That is why special attention will be paid to the agricultural insurance. Different institutions offering this kind of service in the Czech Republic will be compared and evaluated. The results are part of the project dealing with risk management in agriculture in the Czech Republic and they will be used as a starting point of information for the primary research among wine growers and companies offering insurance in the Czech Republic.

Keywords: viticulture, agricultural insurance, risk management, insurance companies, grapevine, grants

Introduction

Although agriculture in the Czech Republic no more forms the essential part of GDP, it has a centuries long tradition here, especially in the area of viticulture. As stated in the report by the Institute of Agricultural Economics and Information, agricultural production formed 1.68% of GDP in 2015. This means a year-on-year decrease of 0.23%. The prices of agricultural products showed a year-on-year decrease of 6% in 2015. (Zpráva o stavu zemědělství ČR za rok 2015 - Zelená zpráva - The Report on the State of Agriculture in the Czech Republic in 2015 - Green Report)

According to the Situational and Perspective Report of the Ministry of Agriculture in 2015, the farmed land of vineyards remained the same in 2015 as in the previous year and had the area of almost 17.7 thousand ha, the production potential was on the level of about 19.6 ha. As of 31 December 2015, 18,300 growers were registered. In 2015, almost 435 ha of new vineyards were planted. 31% of vine growers farm the area smaller than 0.1 ha; these small vineyards have a share of just 4% in the total area of vineyards in the Czech Republic. There are only 1% of wine growers who farm an area bigger than 5 ha among the total number of growers. These growers, however, farm more than 40% of the total area of the Czech Republic. There is a strong increase in the area of vineyards smaller than 0.5 ha and the area of vineyards smaller than 1 ha is also growing. (Situační a výhledová zpráva - Réva vinná a víno: Ministerstvo zemědělství - Situational and Perspective Report - Grapevine and wine: Ministry of agriculture, 2016)

According to Czech Statistical Office, in 2015 90,608 tons of grapes were harvested, which presents an increase of 43% compared to the previous year. Although the volume of harvested production is big, it is considerably eliminated mainly by unfavourable climate effects influencing Czech wine growers. For example, year 2016 was, as is stated in the Situational and Perspective Report on Wine and Grapevine, above average in temperatures with average precipitation on most of the country's area. In some areas, it was freezing throughout all four to five days, which sometimes meant 100% damage to sprouting leaves. In most areas the damage was up to 20%. The wine growers' association estimated the damage caused by this freeze to half a billion Czech crowns. (Situační a výhledová zpráva - Réva vinná a víno: Ministerstvo zemědělství - Situational and Perspective Report - Grapevine and Wine: Ministry of Agriculture, September 2016.)

The frost is not problem only is Czech Republic, but also in other European countries. French winemakers consider frost and hail as the biggest threats. (Salk, Sana Ben et al. *Management of climate risks in the wine sector*. France, GRANEM, University of Angers and INH, 2007) Some authors also say that there is a great impact of global warming on wine. It is the ability of vine to thrive in more poleward locations and pests and infections currently limited by winter cold will expand their ranges poleward. (A. B. Tate (2010) *Global Warming's Impact on Wine*, Journal of Wine Research, 12:2, 95-109, DOI: 10.1080/09571260120095012). Climate change is already affecting most wine-growing regions, with effects on the date of harvest (earlier), the structure of grapes and wine (higher alcohol content), crop development and yield. (Viguie, Vincent et al. *Viticulture and Adaptation to Climate Change*. Journal International des Sciences de la Vigne et du Vin, 2014.)

The aim of this paper is to define the risks in viticulture in the Czech Republic and to evaluate the situation and companies on the insurance market from the winegrowers' point of view.

Literature Review

Ducháčková defines risk as a possibility of the commencement of an event whose result will be diverted from the goal with a certain degree of objective probability. (Ducháčková, Daňhel, 2010) Vladimír Šefčík holds that risk is a probable harm caused to an affected person, the risk holder, which is expressed either in money or in different units, e.g. number of days of working inability, number of human victims. (Šefčík, 2009)

Based on the above-mentioned opinions, risk can be understood as a negative impact on the subject of interest. Here the risk is understood as a negative impact on grapevine plants and their fruit.

There are many parameters used for the division of risks. For this survey, we have chosen only several possible ways of division relevant for the field of wine growing.

Specific risks

Production risks involve damage caused by natural forces, e.g. extreme draughts or extreme precipitation, hailstorm, windstorm, landslide etc. There are more kinds of risks in this group and it is possible to divide them into two subgroups. Insurable risks (cannot be prevented) – they include climate risks - most of these risks are unpredictable and therefore can be insured (these involve e. g. hailstorm, windstorm, freeze, wintering, fire, floods, inundations, landslides). However, this group includes also risks which cannot be insured, e. g. extreme draughts which may be prevented; these days there are even grants for irrigation. Lack of water is now considered the most important but vulnerable resource and wine production depends on sustainable water. (Costa, J. M. et al., 2016.) Non-insurable risks (can be prevented) include environmental risks and production risks. Environmental risks - the agriculturist has a possibility to influence these risks and prevent them. These risks are caused predominantly by a wrong attitude of agriculturists. They can be prevented by stricter laws. (Land erosion, excessive land pollution by pesticides, carting off of slurry after freezing) Production risks - damage caused by pests and crop diseases can be prevented and therefore it is not possible to insure it. Animal diseases can from a major part be prevented and this damage is therefore insured. (Picková, Poláčková, 2003)

Agricultural insurance plays a pivotal role in the elimination of risks. Other options for the elimination of risks include diversification, investment in preventative measures and state-secured system of prevention of risks. Recently, the elimination of risks in the field of wine growing has been far from perfect and its improvement is in process. This article outlines current possibilities of their solution. One of the main ways used for the elimination of risks is insurance.

Insurance of crops

Insurance of crops is characterised as a transfer of a risk to the insurer in return for payment. Insurance companies collect insurance premium and subsequently pay compensation for the damage according to the conditions set in an insurance contract. If the risk is to be insured, it has to meet some conditions. (Špička, 2014) From these conditions it follows that some risks that can affect agriculture are non-insurable, e. g. environmental risks.

Insurance of crops can be divided into three basic types: hailstorm insurance, insurance of crops against selected risks and harvest insurance. (Daňhel, 2005)

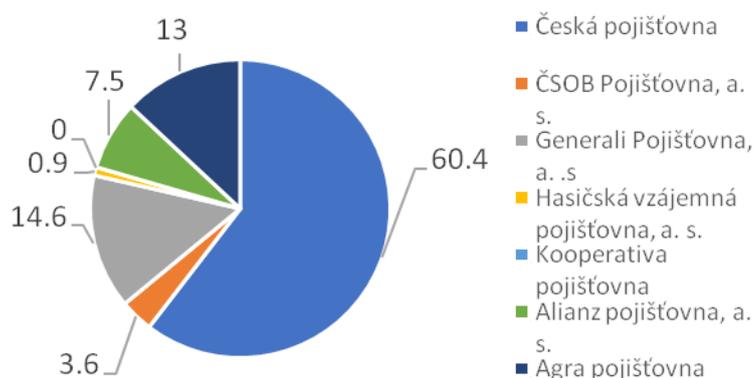
Background

I. Agricultural insurance on the Czech market

According to the Institute of Agricultural Economics and Information, agricultural insurance was offered by 6 commercial insurance companies in 2015. Agriculturists were insured by Česká pojišťovna a. s., Generali a. s., Agra, Allianz, a. s., ČSOB, a. s., Hasičská vzájemná pojišťovna, a. s.,

Kooperativa, a. s.¹² (Zpráva o stavu zemědělství ČR za rok 2015 - Zelená zpráva - The Report on the State of Agriculture in the Czech Republic in 2015 - Green Report)

The following graph shows the shares of agricultural insurance by the above mentioned insurance companies:



companies:

Figure 3: Shares of individual insurance companies in the market of agricultural insurance in 2015 (%)

Source: IAEI 2015

II. Wine sector support

This sector is supported by subsidies from the national budget as well as from the European Union. According to the origin of the financial support, it is divided into:

Support from funds of Czech Republic:

- National subsidies resulting from the Agriculture Act - the state contributes to maintaining the productive potential, agriculture and rural development.
- Support from the Wine Fund - The Wine Fund supports the marketing and sale of wine and the protection of wine labelling according to geographical origin. It supports the development of tourism in the wine-growing areas.
- Support granted by the PGRLF (= Supporting and Guarantee Agricultural and Forestry Fund)
 - Providing support for crop and livestock insurance (Supporting and Guarantee Agricultural and Forestry Fund, 2018.) The minimum aid intensity will be 35 % (originally 25%), the maximum will be increased from 50% to 65% of the demonstrably paid special crop insurance costs for the certain year. (Wine Fund, 2018)

EU funding

- The common organization of the wine market (SOT) - support - Supports the restructuring and conversion of vineyards and investments in new wine-making facilities (EAGRI DOTACE: Common Market Organization for Wine, 2018)
- SAPS support - a single area payment guaranteed to all growers, regardless of what they produce. In 2016, this aid amounted to CZK 3514/ha. (State Agricultural Intervention Fund: Single Area Payment, 2018)

Support from EU and CR funds

- Support under the Rural Development Program - Support for agri-environmental measures, including, inter alia, organic farming and integrated wine production. This program is funded by both the European Union (80% of costs) and the Czech Republic (20% of costs). (EAGRI VENKOV: Rural Development Program 2014 - 2020, 2018.)

Methodology and Results

According to selected criteria for viticulture/wine growers it will be evaluated which insurance now available on the Czech market is the best. Seven insurance companies offering agricultural insurance for wine growers have been selected for the evaluation. In the market survey, two insurers had to be

¹² Kooperativa, a.s., did not offer agricultural insurance in 2015, the request for funding from PGRLF fund concerned only expiring contracts, whose share was just 0.03% in the volume of the insurance premium from all requests for funding.

disqualified, the first being Kooperativa, who previously offered agricultural insurance, but has now dropped it. The second excluded insurance company is ČSOB, which has agricultural insurance with permanent clients from the past and does not plan to expand its client base. Secondary data were drawn from publicly available sources on insurance companies' websites and annual reports. The information was supplemented by a qualitative research carried out in the form of controlled half-structured interviews with representatives of the insurance companies. Data collection took place in February - March 2018.

Criteria for the evaluation of insurance institutions:

Agricultural insurance - insurance companies currently offer insurance for wine growers

Accessibility - includes time needed to gain the basic information and the number of things one needs to be able to arrange insurance at the insurance company. This criterion was evaluated with respect to the demand for time spent between the first contact with the insurance company and final getting of all information available, necessary for arrangement of insurance.

Distribution of points: 5 points - all information given within 24 hours; 3 points - all information given within 7 days; 1 point - information given after more than 7 days or not given at all

Processing time - represents the time from the delivery of all the documentation necessary for the arrangement of insurance to the signing of the insurance contract

Distribution of points: 5 points - the contract worked out within 24 hours; 4 points - the contract worked out within 48 hours; 3 points - the contract worked out within 3 to 4 days; 2 points - the contract worked out within a week; 1 point - the contract worked out after more than one week

Subject of insurance - describes what the insurance company is willing to insure in the insurance contract: a) plant b) fruit.

Distribution of points: 5 points - does insure; 1 point - does not insure.

Insurable risks - risks against which the subject can be insured.

Distribution of points: a) landslide b) climate risks (spring and winter freeze, storm, hail) c) flood or inundation.

5 points - it is possible to insure fruit as well as plant; 3 points - it is possible to insure either fruit or plant; 1 point - it is possible to insure neither fruit nor plant.

Insurance period - the period for which the insurance can be arranged.

Distribution of points: 5 points - annual insurance period with a possibility of extension.

Further distribution of points is not necessary; all insurance companies have the same criterion, as it is a current standard unless the customer expressly wishes otherwise.

Participation - The proportion of how much the wine grower has to pay in case an insured event occurs.

Distribution of points: 5 points - optional percentage share, but it is important to note that the lower the participation, the higher the monthly insurance cost; 1 point - fixed percentage share, the wine grower cannot affect the amount of the monthly insurance and must adapt to the costs associated with the fixed participation.

Time of liquidation - time from the occurrence of the insured event to the payment of funds to the wine grower's account.

Distribution of points: 5 points - payment of the premium within 14 days of the reporting of the insured event; 3 points - payment of the premium after grape harvest; 1 point - payment of the premium after more than one year.

The comparison of insurance companies and their selection was performed in the following way. The main condition which the insurance companies had to meet was the current offer of agricultural insurance for wine growers. A scale of importance of the individual criteria from 10 to 1 was then set. Numbers from 1 to 10 express the significance of individual criteria, 10 being the most significant, symbolising an item which a wine grower is the most interested in. The table also includes points indicating how a particular insurance company meets the criterion, number 5 meaning it does meet the criterion, number 3 meaning it meets the criterion only partially and number 1 meaning the insurance company does not meet the criterion at all. If there are numbers other than the three basic ones, the additional numbers complement the scale and work on the same principle: number 5 means that the insurance company meets the criteria in the best way possible, decreasing numbers indicate worse ability to meet the criteria and number 1 is then the indicator that the company does not meet the criterion at all. The final evaluation was reached by using the following formula:

significance x points = score

Subsequently, the score from all the criteria was counted, where the insurance company with the largest score is the most favourable for the wine grower.

The results of the evaluation show that according to the mentioned indicators, the best insurance company for wine growers is Generali (see Table 1) which is in fact used by only 14.6 % of farmers (see Figure 3). The most favourite insurance company used by 60.4 % of farmers is according to our evaluation on the 4th place. The findings will be complemented by a quantitative research among wine growers; currently, data is being collected. The further qualitative research among wine growers will also target the answer to a question, why farmers choose Česká pojišťovna, what are the reasons and motivators.

Table 1. Evaluation of conditions of individual insurance companies

Criteria	Weight	Agra		Česká pojišťovna		Generali		Hasičská vzájemná		Allianz		
		Points	Score	Points	Score	Points	Score	Points	Score	Points	Score	
Agricultural insurance		✓		✓		✓		✓		✓		
Accessibility	2	5	10	5	10	3	6	5	10	3	6	
Processing time	3	5	15	4	12	3	9	3	9	1	3	
Subject of insurance	Plant	8	5	40	1	8	5	40	1	8	5	40
	Fruit	9	5	45	5	45	5	45	5	45	5	45
Insurable risks	Landslide	5	1	5	3	15	5	25	1	5	5	25
	Climate risks	10	5	50	5	50	5	50	5	50	5	50
	Flood	4	1	4	3	12	5	20	1	4	5	20
Insurance period	1	5	5	5	5	5	5	5	5	5	5	
Participation in %	6	1	6	5	30	5	30	5	30	5	30	
Time of liquidation	7	5	35	3	21	3	21	3	21	3	21	
Total			215		208		251		187		245	

Source: Own study

Discussion and Conclusion

The long tradition of wine growing in Bohemia and Moravia has been severely threatened by climatic influences in recent years. These risks are hard to solve for all parties concerned. The current situation is to a large extent not addressed by agricultural insurance. Agricultural insurance programs are currently being championed by international donors in many developing countries. They are acclaimed as promising instruments for coping with climate risk. (Müller et. al., 2017) Due to the increased amount of climatic risks, the existing insurance has become disadvantageous for insurance companies, and therefore they tightened conditions and increased insurance payments for wine growers. Even though even the state is trying to solve the situation by means of subsidies for insurance in the amount of up to 65% of the PGRLF fund, wine growers' insurance is still too expensive. Insurance companies are trying to adapt their conditions to wine growers' demands, but so far they have not been really successful. The market has been entered by insurance giants that are not primarily focusing only on agricultural insurance, which could be the promise of solving this problem. After comparing the conditions of individual insurance companies and their point rating, according to the above-mentioned indicators, the best seems to be Generali. It would be desirable to use an alternative way of supporting analysis such as the one used by Klaus et.al. (2016). It is the agricultural crop loss model used for crop susceptibility analyses. After interviews with insurance companies, it can be said that agricultural insurance is still new to them and it is not a situation they would normally deal with. In their offers, individual institutions differ in small details, but they always have one thing in common - high insurance costs. For optimum insurance, in the future it is essential to reduce the costs of insurance and to deepen cooperation between insurance companies and winemakers. Nevertheless, as Müller et. al. (2017) mentioned in their paper: „If insurance is to be an appropriate tool for mitigating the impacts of climate change, it needs to be carefully developed with specific local social-ecological contexts and existing risk coping strategies in mind.”

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COMPANY'S SOLVENCY ASSESSMENT METHODS: SIMPLE ASSESSMENT MODEL ADAPTATION

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Abstract: In their research, the authors consider the role of simple models such as Risk Index for assessing the insolvency of companies in the system of significant development of technologies for non-parametric models of assessing bankruptcy. The authors trace the historical development of this class of models from the first steps (Tamari, 1966) up to this day (Bešvir, 2010). The aim of the present study is to expand the range of the simple models applied for assessing the solvency of small and medium-sized enterprises in Latvia through the adaptation of simple solvency assessment model - BONITEST. The authors have performed a statistical study on the adaptation of BONITEST, including the creation of scales for assigning scores to each of the ten indicators and summarising the five-tier rating scale of the company's financial position. The study has been conducted by the authors based on the data of 300 Latvian enterprises operating in the processing industry for the period of 2011–2016. Within the framework of the research, the authors have considered the variant of excluding the three indicators from the initial version of the assessment indicators. This exception in comparison with the primary set of indicators has not reduced the accuracy of the adopted model. In the case study, the authors have evaluated the accuracy of the proposed and adapted BONITEST-LV test using receiver operating characteristic (ROC) curves, and the obtained results were compared to Kralicek's Quick Test.

Keywords: adaptation, Bonitest, Bonitest-LV, solvency, risk index model

Introduction

Solvency prediction is important both for the company's management and for external partners, such as cooperation partners, credit institutions and even employees. The topicality of the research is also largely determined by the need of accounting professionals to assess the implementation of the principle of business continuity. The Law of the Republic of Latvia on the Annual Financial Statements and Consolidated Financial Statements (2015) indicates that one of the objectives of the preparation of financial statements is to ensure the continuation of the company's activities, that means, it must be sure and substantiate its solvency for the next year. The object of the study is the needs of users of financial statements in assessing the solvency of companies. The subject of the study is simple parametric methods of solvency assessment related to the class of primitive methods (Risk Index and Scoring models), including BONITEST (Bešvir 2010, p. 98). The goal of the paper is to investigate the possibility of the proposed BONITEST method adapted to the conditions of Latvian companies.

Ivaca Pervan has asked "Are Risk Index Models Useful for Firm Failure Prediction?" (Pervan, 2016, p. 1), so it is very interesting to assess whether primitive models (Risk Index Model) can compete with modern insolvency forecasting methods (Logistic Regression, Support Vector Machines and Neural Networks). In the research conducted in the Republic of Croatia (Keglević-Kozjak, 2014, pp. 77–78), the BONITEST has proven its accuracy in forecasting bankruptcy.

The article consists of the introduction, three main sections and conclusions. The review of the literature provides a brief overview of the development of the class of simple models (rating and scoring) from their origin to the present day. The methodology of the research provides a description of the BONITEST model (Bešvir 2010, p. 98) and describes the adaptation of the BONITEST model to the conditions of Latvian companies, including the creation of rating scales for all 7 financial indicators. In the Results section, the findings and results are described, and possible implementation of the adapted BONITEST-LV model defined. The accuracy of the adapted BONITEST-LV model is tested based on 300 Latvian enterprises in the Discussion section and the obtained results are compared to Kralicek quick test. In conclusion, a positive answer is given to the question of the suitability of using the adapted BONITEST-LV for the Latvian small and medium-sized enterprises operating in the processing industry for assessing solvency.

Review of Literature

To assess the solvency and creditworthiness of enterprises, models of various classes are used that can be grouped into parametric and nonparametric models or models of data mining. Nonparametric models are used by credit institutions. Parametric models, depending on the technology used, are divided into the three main classes of models: primitive, discriminant, logit and probit.

The first representative of primitive models is the model developed by Meir Tamari (1966). M. Tamari, analysing the performance of failed companies with successful Israeli industrial enterprises, concluded that there were differences in indicators. M. Tamari was one of the first economists who implemented the idea of the usage of financial indicators considering the weighting factors of preference for their impact on the risk assessment of the company. Only two decades later, Moses and Liao (1987) conducted a similar study. However, this model has not been developed and since its inception, verification of its accuracy has not been carried out.

Significant activity in the development of the primitive models was observed in the period from 1993 to 2010. A simple calculation model based on financial indicators, the purpose of which is quick checking the solvency of its business partners, is Kralicek Quick Test (Kralicek, 1993, 2007) that was developed using data from Austria, Germany and Switzerland. This model has been repeatedly tested on the data of enterprises of different countries (Polo, Caca 2014, pp. 150–151; Machek 2014, pp.16-17).

The BONITEST model was developed by Bruno Bešvir (Bešvir 2010, pp. 96–100; Bešvir 2014, p. 98) in such a way as to ensure quick and effective control over the solvency of business partners operating in the Republic of Croatia. The primitive assessment model BONITEST, developed for the Croatian market, operates better than the Quick Test developed for Germany. According to Keglević-Kozjak et al., “Possible reason for that is the fact that it is more elaborate meaning it uses quite more ratios in scoring procedure. But it makes it more complicated.” (Keglević- Kozjak, Šestanji-Perič, Bešvir 2014, p. 9).

The authors have summarised the indicators used in the class of primitive models, which are divided into five groups of financial indicators. The indicators that are included in more than half of the models studied – Current assets/Current liabilities were used in 6 models and Owners’ equity/Total assets, Total liabilities/Total assets, EAT/Total assets were used in 3 models. The same indicators are leaders in the frequency of use in the models of bankruptcy assessment conducted by L.G. Jodi et al. (Jodi, Giacomino, Akers 2007, p. 42).

Methodology of the Research

In order to implement the adaptation of a primitive model, the authors have used statistical methods in the study. The research was carried out using a sample of companies from the Latvian processing industry, whose turnover in the period from 2011 to 2016 was in the range of 1 million EUR to 3 million EUR at least in one of the years. According to the selection criteria in 2016, this group of companies comprised 1111 enterprises, including 26 that became insolvent in 2016. In order to determine the appropriate size of the sample, estimation was made at a confidence level of 95 %, and an algorithm by Roasoft was used (Roasoft, 2017). The calculation was based on the following parameters: the permissible error margin – 5 %; confidence interval – 95 %; the number of companies from which the sample was made – 1111; distribution – 50 %. The estimated sample size was 286 enterprises. Therefore, it was decided to randomly select 300 companies and use their balance sheets, profit and loss accounts and cash flow statements from 2011 to 2015, as well as information on the insolvency status in 2016.

Although all scientific papers mention that there are 10 financial indicators that are used in BONITEST, at the same time in the same papers the tables include 12 indicators (Table 1). Indicators A and B are absolute values and are used to supplement the model with expert judgment and are not used in the test itself. No data are available on the allocation procedure of points, evaluation criteria and coefficient threshold.

In the available articles regarding BONITEST, there is no information about the scales, according to which the coefficients are evaluated with points. Therefore, the authors of the research have decided to create these rating scales based on the calculated statistical values.

Table 1. Financial Indicators Included in BONITEST

Ratio	No.	Formula
Liquidity	A	Net working capital = current assets – current liabilities
	B	Short-term financial position = (current assets – inventories) – current liabilities
	1	Current ratio = current assets/current liabilities
	2	Quick ratio = (current assets – inventories) /current liabilities
	3	Financial stability ratio = fixed assets/(equity + long-term liabilities)
Leverage	4	Debt ratio = total liabilities/total assets in %
	5	Cash flow leverage ratio = total liabilities/ (earnings after tax + amortization)
	6	Financial strength ratio = $5 \cdot (\text{earnings after tax} + \text{amortization} + \text{depreciation})/\text{total liabilities}$
Profitability	7	Net ROA = EAT/total assets in %
	8	ROE = EAT/equity in %
	9	EBIT in %
Activity	10	Asset turnover ratio = Total revenues/total assets

Source: Made by the authors according to Keglević-Kozjak, Šestanji-Perič, Bešvir (2014)

To create the Solvency Model Scale, the following steps were taken. At first 10 financial indicators included in the BONITEST model were calculated for the database of selected companies, the absolute value indicators A and B (Table 1) were not used and for each of the 10 indicators the average value, standard deviation, minimum and maximum value, 20, 40, 60, and 80 percentiles were calculated. Secondly average and standard deviation were defined by dividing each of the ten indicators into two groups in solvent and insolvent enterprises and outliers were excluded from the estimated 10 financial indicator results. After the outlier exclusion, the statistics were calculated without and within splitting into two groups as indicated in first step. Then in all 10 options, scales were created for the evaluation of all financial indicators. In each of the 10 options for all 10 indicators, each company was assessed according to the scale. After that for each of the 10 indicators for all options, the ROC curve was constructed based on the solvency status of enterprises and the value of area under the curves was obtained. The best classification option was specified for each indicator and a new option 11 was created from the results for each indicator by selecting the scale from the option that showed the highest value of area under the curve. Then for all 11 options, the weighted average value from all indicator results was calculated, and the ROC curves were constructed and the area under ROC was determined and the best option was selected according to the highest value of the area under ROC. Later a cut-off point for separating solvent and insolvent companies was determined for the best option, by evaluating all the possible cut points calculated for ROC curve and tests of possible excluding of some indicators were performed. Finally, model validation by Altman (Altman 1968, p. 599) two-error method was performed, i.e., the accuracy of an insolvency prediction model was estimated, by calculating two types of errors related to the incorrectly classified solvent and insolvent companies.

There was not access to all the necessary data of 300 selected businesses, e.g., the information on depreciation allowances; therefore, it was not possible to calculate some of the indicators or there was a mistake of dividing by 0. The selected data did not allow separating amortization and depreciation; therefore, in both 5 and 6 indicators the amortization that was available in the cash flow statements was applied. For this reason, the 6th figure virtually repeats the previous and is a five-fold inverse.

Attention should be drawn to indicators where a higher value is scored with lower indicator values. As an example, total liabilities/(earnings after tax + depreciation) are better with lower values, which means that cash flows can more rapidly cover liabilities, but what happens if there is no profit but there is a loss. Mathematically, this is less than any positive, but it is not better. In these cases, having a negative result is evaluated with 1 point.

Results

According to the implemented methodology, the authors concluded that the worst results were in options where data were used without excluding outliers, but the best results were obtained with excluding outliers, so this decision was correct. One of the classification abilities could be improved

using the inverse variant (Fawcett 2006, p. 863), because an area under ROC was less than 0.5. On the other hand, when evaluating indicators, the best rankings were shown by indicators 5, 6, 7 and 9, so they were significant in solvency prediction, but poor classification abilities were shown by indicators 8 and 10. The indicators are described in Table 1. The indicators that show insufficient classification have similar solvent and insolvent average values. In the best option classification abilities, determined by area under the ROC curve, for the ten financial results ranges are from 0.86 to 0.57, which gives a basis for a good final result.

To determine the best option, all eleven option tests were carried out to find out the most successful of them. It is logical that the 11th variant showed the best classification ability, which was 0.889. The authors believe that the optimal point is 2.6, which ensures that 85.7 % of bankruptcies are classified correctly and 20.1% of the solvent companies are classified incorrectly. If this threshold were lowered to 2.1, only 57.1 % of the insolvent companies would be correctly classified and only 3.7 % of solvent companies would be incorrectly classified. In turn, the cut point 3.1 provides 100 % precise insolvency, but also a greater error for solvent companies – 38.1 %.

The authors checked whether it was possible to exclude from the BONITEST-LV some of the less important indicators with poorer classification ability, as well as the indicator, which was practically included two times. The variants were checked by excluding indicators No. 5, 8 and 10, excluding them one by one, by two, and all three together. As a result of the test, it was found out that 7 indicators out of 10 provided the same accuracy, so the authors proposed BONITEST-LV with seven indicators as described in Table 2.

The model operates in three stages (Keglević-Kozjak, Šestanjanj-Perić 2016, p. 16). The first step is to collect and summarise data from the company's annual report.

Table 2. BONITEST-LV with 7 Indicator Points

Indicator	Points				
	1	2	3	4	5
X1	$X1 < 0.4$	$0.4 \leq X1 < 0.9$	$0.9 \leq X1 < 1.9$	$1.9 \leq X1 < 2.9$	$X1 \geq 2.9$
X2	$X2 < 0.3$	$0.3 \leq X2 < 0.5$	$0.5 \leq X2 < 0.9$	$0.9 \leq X2 < 1.4$	$X2 \geq 1.4$
X3	$X3 < 0.4$	$0.4 \leq X3 < 0.45$	$0.45 \leq X3 < 0.55$	$0.55 \leq X3 < 0.6$	$X3 \geq 0.6$
X4	$X4 > 0.9$	$0.7 < X4 \leq 0.9$	$0.5 < X4 \leq 0.7$	$0.3 < X4 \leq 0.5$	$X4 \leq 0.3$
X5	$X5 < -0.3$	$-0.3 \leq X5 < 0.2$	$0.2 \leq X5 < 0.6$	$0.6 \leq X5 < 1$	$X5 \geq 1$
X6	$X6 < -0.1$	$-0.1 \leq X6 < 0$	$0 \leq X6 < 0.1$	$0.1 \leq X6 < 0.2$	$X6 \geq 0.2$
X7	$X7 < -0.05$	$-0.05 \leq X7 < 0$	$0 \leq X7 < 0.05$	$0.05 \leq X7 < 0.1$	$X7 \geq 0.1$
Indicator description: X1 = current assets / current liabilities; X2 = (current assets – inventories) / current liabilities; X3 = fixed assets / (equity + long-term liabilities); X4 = total liabilities / total assets in %; X5 = 5 · (earnings after tax + amortization + depreciation) / total liabilities; X6 = EAT / total assets in %; X7=EBIT / NET turnover.					
Each indicator is evaluated with points according to the table and the weighted average is calculated. If the result is less than or equal to 2.6, then the company is facing insolvency, on the contrary it will be solvent.					

Source: Created by the authors

The second stage is to calculate financial coefficients. The third stage involves the allocation of points to each coefficient and the calculation of total arithmetic mean. From the perspective of a cooperation partner, the results of the financial position are evaluated as follows and can be divided in six positions. The authors of the research suggest the following scale for a company financial position: less than 1.7 – the worst position, means that there is a high probability of bankruptcy and it is necessary to guard against business relations with this company. Under 2.4 – a weak position shows that there is a possibility of bankruptcy and transactions should be secured: pledge, owner or manager's guarantees. Under 3.1 – an in-between position, states that the company is located between a good and a bad state and business relations should be secured through financial guarantee instruments. Under 3.8 – an average position means that the company operates well, but external negative trends can cause serious business and solvency disruptions and it is necessary to insure transactions against insolvency. Under 4.5 – a very good position, ensures that the company operates well, the probability of insolvency is low. Finally, 4.5 and above – an ideal position means that the company operates perfectly, the risk of insolvency is very low.

Discussion

To approve the usefulness of the adapted BONITEST-LV, its forecasting ability was compared with the results of Kralicek quick test. To assess how the customized BONITEST-LV model is able to predict company's solvency, its validation was done. Test results are summarized in Table 3.

Judging by the aggregated data, the accuracy of the model increases towards the reference point. The error for solvent companies is approximately equal for all years and no more than 20 %. The insolvent error decreases significantly as the insolvency status approaches (e.g., 27 % in 2014 and 14 % in 2015). In general, the accuracy of the last year is good for both solvent and insolvent companies, and it is above 80 %, which is an acceptable indicator. A good accuracy is considered to be above 80 % (Šneidere 2007, p.125). The results were compared to Kralicek quick test that had shown good results. Kralicek test demonstrates a better result in insolvency prediction but, at the same time, the accuracy of prediction of solvent companies is lower.

Table 3. BONITEST-LV and Kralicek Quick Test Validation Results

	BONITEST-LV					Kralicek Quick Test				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Mr	19 %	23 %	22 %	20 %	18 %	26 %	32 %	37 %	33 %	26 %
Ms	13 %	19 %	18 %	20 %	19 %	23 %	30 %	33 %	34 %	26 %
Mi	88 %	67 %	86 %	27 %	14 %	60 %	56 %	73 %	20 %	17 %
Errors: Mr – total; Ms – solvent; Mi – insolvent										

Source: Created by the authors

Conclusion

The object of the study is the needs of users of financial statements in assessing the solvency of companies. The subject of the study is simple parametric methods of solvency assessment related to the class of primitive methods. Solvency prediction is essentially important in company's management. There are more advanced methods as well as simple ones, such as Risk Index and Scoring models. The first representative of primitive models is the model developed by Meir Tamari (1966) followed by models by Moses and Liao (1987), Kralicek quick test. In the present study, a deeper analysis has been performed for BONITEST developed by Bešvir (2010). Simple methods could be used in solvency assessment with satisfactory performance. Kralicek quick test shows the following accuracy for the year prior to the possible insolvency: 74 % for solvent companies, 83 % for insolvent companies and 74% in total.

It is possible to adapt a solvency primitive forecast model using basic statistical values by creating a point scale for it. To achieve better classification results for financial indicators while using statistical values, it is recommended to exclude outliers. In the present research, different options have been performed to assign points to financial indicators, such as percentiles, mean value \pm n standard deviations, dividing and not dividing into groups of solvent or insolvent companies. The results of the study demonstrate that options using different statistical values do not provide equal classification ability; therefore, for each financial indicator the best one should be selected, as there is not the one option for all indicators. The classification abilities for BONITEST-LV financial indicators were in the range from 0.57 to 0.86 (measured by an area under the ROC curves). The adapted BONITEST-LV model shows a significant accuracy in solvency prediction for Latvian companies operating in the processing industry with an annual turnover within the range from 1 million EUR to 3 million EUR. The accuracy of BONITEST-LV for the year prior to the possible insolvency is 80 % for solvent companies, 73 % for insolvent companies and 80 % in total. In the future researches the adapted model BONITEST-LV should be validated on the basis of other data than used in this research to prove the accuracy obtained in this research.

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APPLICATION OF MALMQUIST INDEX IN THE PRODUCTIVITY ASSESSMENT – CASE OF PRODUCTION COMPANIES IN POLAND¹³

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Abstract: This study aims to measure the total factor productivity (TFP) of 128 production companies listed on the Warsaw Stock Exchange (WSE) in Poland. The empirical analysis covers the period of 2013–2016 and uses panel data from financial statements made available by Emerging Markets Information Service (EMIS). Changes in the total productivity of companies are expressed with the use of the Malmquist index and its decomposition into technical efficiency change (TEC) and technical change (TC). The presented results show a 5.0% decrease in TFP on average. The source of TFP deterioration mainly centred on the decrease of the TEC (-4.6% on average). The decrease in TEC was mainly affected by a decrease in the pure technical efficiency change (PTEC) (-5.7% on average). The research suggests the need for improvement of the output-input relationship in the production companies.

Keywords: Malmquist index, productivity, efficiency, competitiveness, company, DEA.

Introduction

Majority of manufacturing enterprises existing in market economic conditions have relatively comparable access to both tangible and intangible factors of production. What primarily differentiates competing companies from one another is, therefore, how they apply various factors in transforming inputs into outputs (Worobjow 2006, p.131). Currently, competitive advantage is enjoyed by companies that achieve planned effects with minimum inputs or those that attain maximum effects with given levels of input. Thus, it is productivity or the efficiency of transforming inputs to outputs (Björkman 1992, p. 203) that constitute the essential factor that impacts the company's competitiveness.

The aim of the article is to present changes in the overall productivity of manufacturing companies in 2013–2016 and also determine the contributing factors. To address this, the Malmquist index for panel data as well as its decomposition into factors of technical efficiency and technical advancement was applied.

Productivity, efficiency – theoretical approach

Productivity and efficiency are two highly important notions in the evaluation of companies' performance (Alimohammadlou, Mohammadi 2016, p. 59). Both concepts pertain to improving production in any company engaged in manufacturing, agriculture or the service sectors of the economy. Productivity shows how much output is obtained from a given set of inputs. As such, it is typically expressed as an output-input ratio (Syverson 2011, p. 329). This ratio is easy to compute if the production unit uses a single input to produce a single output. On the contrary, if the unit uses several inputs to produce several outputs, then the inputs and outputs have to be aggregated so that productivity remains the ratio of two scalars. In this sense, there is an increase in productivity if the quantity of inputs decreases while the quantity of outputs remains constant, or the quantity of outputs increases with the same quantity of inputs (Galarneau, Dumas 1993, p. 39).

At a firm or industry level, the benefits of productivity growth can be distributed in a number of different ways (*Productivity...* 2016, p. 1): to the workforce through better wages and work conditions; to shareholders and superannuation funds through increased profits and dividend distributions; to customers through lower prices; to the environment through more stringent environmental protection; and to governments through increases in tax payments (which can be further used to fund social and environmental programs).

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The productivity concept is intimately tied to the idea of efficiency. Efficiency can be defined as a distance between the quantity of inputs and outputs, and the quantity of inputs and outputs that defines a frontier, the best possible frontier for a firm in its industry (Daraio, Simar 2007, p. 14). It signifies a level of performance that describes a process that uses the lowest amount of inputs to create the greatest amount of outputs. It is strongly correlated with the use of resources, thus it means the ability to avoid wasting materials, energy, efforts, money, and time in producing the desired result.

Traditional ways of classifying productivity identify overall and partial productivity. Partial productivity is a ratio of overall good produced to the quantity of each type of factor of production employed in the manufacturing process. A partial productivity measure relates output to a single input; examples include labour productivity, capital productivity or energy productivity. Total factor productivity (TFP) relates the index of output to a composite index of all inputs (Murray 2016, p. 113). Overall productivity is a certain configuration of factors of production, including their degree of applicability that helps to identify areas and the possibilities of existence of such synergy that is decisive of a company's competitiveness (Kozioł 2004, p. 65; Witek 2017, p. 1121).

The partial productivity measure is of limited use in the context of multiple outputs and multiple inputs. In such cases, TFP is useful which relates aggregate output with aggregate input. TFP is also more suitable for companies' performance comparisons or a company's productivity assessment along with time.

Data and variables

The assessment of productivity changes over time (2013–2016) was carried out in respect of 128 enterprises from Poland's production sector, namely sector 31 according to the North American Industrial Classification System (NAICS). The study covered enterprises listed on the Warsaw Stock Exchange (WSE) in Poland. The empirical data were obtained from the corporate financial statements for the period 2013–2016, available in the Emerging Markets Information Service (EMIS) database. The overall number of enterprises within the sector consisting of 243 was reduced to 128 by eliminating such enterprise that had posted a negative net profit at least once over the 2013–2016 time period.

Assuming that the primary objective of engaging in business by the company is to generate profit for the calculation of productivity indices, the following variables were applied namely, outputs: y_1 – net sales revenues ('000 PLN), y_2 – net profit ('000 PLN), input: x_1 – total assets ('000 PLN). The choice of variables for the study was based on the substantive criterion that took into related literature reviews on research into company efficiency as well as the availability of data.

Method

Malmquist productivity index is one of the frequently used techniques to measure productivity changes between two or more periods. It was first introduced in 1982 by Caves, Christensen, and Diewert who defined the index using Malmquist input and output distance functions (Coelli *et al.* 2005a, p. 67). Distance functions are function representation of multiple-output, multiple-input technology which require data only on input and output quantities (Färe *et al.* 1994, p. 68). Data envelopment analysis (DEA) models can calculate the Malmquist index i.e. the ratio between outputs and inputs at different times (t and $t+1$), relative to a given technology (Tanase and Tidor 2012, p. 1058). Assuming the availability of data on a single input (x) and a single output (y) over two periods (t and $t+1$), the Malmquist index (M) is defined as (Falavigna *et al.* 2018, p. 35):

$$M = \frac{y^{t+1} / x^{t+1}}{y^t / x^t}, \quad (1)$$

where: y^t / x^t – productivity of a decision making unit (DMU) over a period t , y^{t+1} / x^{t+1} – productivity of a DMU over a period $t+1$. Index (1) measures productivity changes over the period t and $t+1$. Its value exceeding 1 means increased productivity, the value of the index less than 1 means declines in productivity, and the value equal 1 indicates lack of change in productivity, compared with the previous time period.

The determination of factors affecting productivity change is made possible via a decomposition of the Malmquist index as follows (2):

$$\begin{aligned}
M = TFP &= \left(\frac{\theta_c^t(x^{t+1}, y^{t+1})}{\theta_c^t(x^t, y^t)} \cdot \frac{\theta_c^{t+1}(x^{t+1}, y^{t+1})}{\theta_c^{t+1}(x^t, y^t)} \right)^{1/2} = \\
&= \frac{\theta_c^{t+1}(x^{t+1}, y^{t+1})}{\theta_c^t(x^t, y^t)} \cdot \left(\frac{\theta_c^t(x^{t+1}, y^{t+1})}{\theta_c^{t+1}(x^{t+1}, y^{t+1})} \cdot \frac{\theta_c^t(x^t, y^t)}{\theta_c^{t+1}(x^t, y^t)} \right)^{1/2} = (TEC) \cdot (TC)
\end{aligned} \tag{2}$$

where: $\theta_c^t(x^t, y^t)$ – efficiency of transformation of x^t inputs into y^t outputs of c DMU in time period t , $\theta_c^{t+1}(x^t, y^t)$ – efficiency of transformation of x^t input into y^t outputs in time period $t+1$, $\theta_c^t(x^{t+1}, y^{t+1})$ – efficiency of transformation of x^{t+1} inputs from the period $t+1$ into y^{t+1} outputs from the period $t+1$ at the time period t , $\theta_c^{t+1}(x^{t+1}, y^{t+1})$ – efficiency of transformation of x^{t+1} inputs into y^{t+1} outputs in time period of $t+1$ as well as $\frac{\theta_c^{t+1}(x^{t+1}, y^{t+1})}{\theta_c^t(x^t, y^t)}$ – change in technical efficiency between

time periods t and $t+1$ (TEC – Technical Efficiency Change), $\left(\frac{\theta_c^t(x^{t+1}, y^{t+1})}{\theta_c^{t+1}(x^{t+1}, y^{t+1})} \cdot \frac{\theta_c^t(x^t, y^t)}{\theta_c^{t+1}(x^t, y^t)} \right)^{1/2}$ –

change in technology (TC – Technical Change). The TEC index of (2) can be decomposed into PTEC (Pure Technical Efficiency Change) and SEC (Scale Efficiency Change), comparing the distance functions under constant and variable returns of scale (Färe *et al.*, 1994, p. 75). The TEC is the result of multiplying SEC and PTEC. Pure technical efficiency refers to the DMU's ability to avoid waste by producing as much output as input usage permits, or by using as little input as output production allows. Scale efficiency refers to the DMU's ability to work at its optimal scale (Bassem 2014, p. 186; Grilo, Santos 2015, p. 9). If PTEC > SEC then an improvement in pure technical efficiency is highly likely to explain most of the efficiency changes. However, if PTEC < SEC, it is highly likely that an improvement in scale efficiency has generated the resulting efficiency changes (Moffat *et al.* 2009, p. 34).

DEA can be either input-oriented or output-oriented. In the input-oriented case, the DEA method defines the frontier by seeking the maximum possible proportional reduction in input usage, with output levels being held constant, for each DMU. While, in the output-oriented case, the DEA method seeks the maximum proportional increase in output production, with input levels held fixed (Coelli, Prasada Rao 2005b, p. 117). This paper assumes the output orientation.

Results and Discussion

The presentation of findings starts with the descriptive statistics of one input and two outputs (Table 1).

Table 1. Descriptive statistics of inputs and outputs

Variable	Year	Mean	Median	Min	Max	SD	CV [%]
y_1 : Net sales revenues [‘000 PLN]	2013	668.96	154.00	4.93	11051.92	1367.75	204.46
	2014	590.55	139.39	3.76	10495.07	1236.66	209.41
	2015	540.66	132.59	3.74	9948.33	1156.76	213.95
	2016	513.01	123.85	2.61	9950.77	1131.26	220.51
y_2 : Net profits [‘000 PLN]	2013	789.06	183.91	0.02	8955.69	1489.71	188.80
	2014	751.40	199.42	0.13	10007.90	1462.52	194.64
	2015	713.42	169.70	0.03	9898.48	1419.22	198.93
	2016	686.66	147.30	0.35	9821.02	1391.23	202.61
x_1 : Total assets [‘000 PLN]	2013	43.13	9.94	0.01	594.14	87.28	202.37
	2014	46.28	10.70	0.01	678.22	100.15	216.38
	2015	34.02	8.46	0.02	481.86	67.11	197.27
	2016	36.80	6.74	0.11	708.77	93.56	254.25

Min – minimum, Max – maximum, SD – standard deviation, CV – coefficient of variation Source: own calculation.

Source: Own study

Values of variables representing both the input and outputs were characterized by high diversity. Both the average net sales revenues and average net profit of the companies surveyed over the period 2013–2016 were characterized by a downward trend. Variability levels of both variables (y_1 , y_2) adopted as outputs were very high, bringing about an additional increase in their variability in subsequent years. A similarly high variability was observed for the total assets (x_1). The average value of the variable for 2013–2016 retained a relatively stable level. Half of the surveyed enterprises had in 2013 achieved revenues that just exceeded 1,54,000 PLN, while in 2016 they just managed to exceed 12,385,000 PLN. With respect to net profits, however, the median value was highest in 2014 when 50% of enterprises achieved profits in excess of 19,942,000 PLN. The enterprises surveyed also exhibited the highest levels of assets in 2014. As much as 50% of them had assets in excess of 1,070,000 PLN.

The findings do point to difficulties associated with assessing the situations of enterprises regarding the use of absolute values, as well as those encountered in the comparison of companies. Such restrictions are not encountered using methods based on relative values and indicators. The use of Malmquist index, for example, additionally allows one to compare productivity changes over time.

Changes in the average value of the productivity, for 2013–2016 are illustrated in *Fig. 1*.

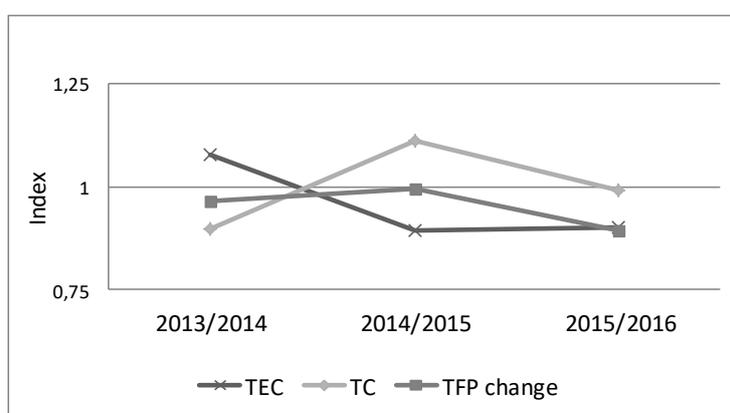


Figure 1. Indices of Technical Efficiency Change (TEC), Technical Change (TC) and TFP Change

Source: own elaboration

A decrease in average productivity was observed in the production sector over the period 2013–2016. The decomposition of the Malmquist index enabled the determination of the source of decrease. This was due to the technical efficiency change (TEC), which decline was particularly noticeable in 2014/2015. Reducing the technical efficiency, which averaged -4.6% (Table 2), had negative impacts on levels of the Malmquist index, which declined by 5% on average. A slight decrease was, in the same period of 2013–2016, also observed in respect of the second index factor, namely technical change (TC). An increase in technical advancement (TC) was observed, in 2014/2015 (Table 2). However, on average, the TC decreased by 0.4% within the analyzed period. This underscores the reason why the companies investigated need to focus on innovative applications while introducing new technologies in various tasks being accomplished.

Table 2. Geometric mean (g) changes in TEC, TC, PTEC, SEC, and TFP

Year	TEC	TC	PTEC	SEC	TFP change
2013/2014	1.077	0.896	0.949	1.134	0.965
2014/2015	0.895	1.111	0.907	0.986	0.994
2015/2016	0.902	0.991	0.974	0.925	0.893
Mean (g)	0.954	0.996	0.943	1.012	0.950

Source: own calculation with the use of DEAP 2.1. computer software.

The outcome indicates that the surveyed enterprises achieved on average (in 2013–2016) a slight decrease of TEC, meaning that companies employed a less favourable combination of inputs and outputs (the unit concerned drifted away from the production possibilities frontiers). This situation could be also the result of less utilization of processing capacities or the increased amount of fixed

assets that did not contribute to increased production capacities of the analyzed enterprises (Jarzębowski 2010, p. 83). Identifying the causes of the lower technical efficiency served the decomposition of TEC into the products of two factors, SEC and PTEC. While the level of PTEC decreased by 5.7% on average of the period, the level of SEC increased on average by about 1.2%.

The comparison of scale efficiency value and pure technical value sheds light on the main source of inefficiency of DMUs, which may be the technical problems associated with the quantity and combination of input and output factors or the whole operational scale (Lee 2009, p. 11161). Thus, the negative technical efficiency change was mainly a consequence of poor pure efficiency change rather than scale efficiency change. This situation may indicate that the DMUs need to improve their output-input relationship by e.g. avoiding wastes.

Conclusions

The research conducted on the productivity of companies in the production sector in 2013–2016 enabled the observation of decreases in companies' total productivity. The decline was mainly the outcome of technical efficiency change. The level of technical efficiency of companies had negative impacts on the average productivity levels of sectoral companies. Its decline of 4.6% was mainly influenced by declines in pure technical efficiency (-5.7% on average). At the same time, a slight increase in scale efficiency (1.2% on average) was observed. The main reasons for the decrease in total productivity (-5.0%) in the production sector turned out to be the unfavourable output-input relationship but also could be a mismatch of the volume of production with the productive capacities at the companies' disposal. The effect of this mismatch was most probably the high level of unit costs, which could have, in turn, been translated into gradual declines in net profits during 2013–2016.

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PROFESSIONAL EXPECTATIONS OF REPRESENTATIVES OF GENERATION Y IN THE LIGHT OF EMPIRICAL RESEARCH

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Abstract: The complexity and uncertainty of the environment in which modern organizations have to function and the ongoing changes in the labour market and employment bring new challenges for people belonging to the young generation of workers described as Generation Y. Identifying and understanding the professional expectations of representatives of this generation may be a contribution to the construction of interesting job offers that will increase employee involvement in fulfilling their professional duties. The first section of this paper focuses on the interpretation of the concept of generation, which was based on the analysis of the literature on this subject. Subsequently, the characteristics of generation Y were discussed and the empirical part of the article contains the survey carried out in the last quarter of 2017 at the Faculty of Management of the Częstochowa University of Technology. The survey was aimed at presenting the expectations of representatives of Generation Y towards professional work.

Keywords: Generation Y, professional expectations

Introduction

People born in 1980-1994, referred to as Generation Y, are one of the generations of employees who have marked their presence in the modern labor market. Modern technologies played an important role in the development of their interests and passions. Their upbringing and everyday functioning in the online world have contributed to the formation of the modern model of Generation Y.

Growing up in a free market economy and the progressing globalization have, on one hand, created a number of opportunities and on the other hand, have become a source of stress and increased competition in every area of life. In order to survive in a difficult and demanding job market, they have developed qualities such as self-confidence and high self-esteem (Stachowska 2012, p. 35).

Due to the conditions in which Generation Y has grown up, they are guided by high expectations towards their professional work and employers. As the research results available in the subject literature and some problems reported by practitioners in the field of management show, sometimes the Generation Y's professional expectations do not match the skills they have (Kopertyńska, Kmiotek 2014, p. 186). It is worth noting that the young generation of employees does not feel fear of presenting their high expectations towards the employer, which is why it is essential to identify the things of importance for this generation and why they prefer said values. Employers who employ representatives of this generation should get acquainted with their expectations regarding professional life and be prepared for the various challenges posed by the most demanding employees (Gajda 2017, p. 159).

The article aims to present the professional expectations of generation Y, based on the surveys conducted in the last quarter of 2017 at the Faculty of Management at the Częstochowa University of Technology.

Generation in a theoretical perspective

The literature of the subject provides many attempts to explain the concept of "generation". Interpreting the concept should be considered in three aspects: socio-cultural, the existence of generational experience and the awareness of representatives of the generation. Referring to the definition of Griese, it should be assumed that the generation is a community consisting of individuals distinguished in terms of belonging to a particular cultural group, people of the same age, who in a specific historical and social situations reveal similarities in attitudes, motivations and value systems (Griese 1996).

As Mannheim notes - the creator of the generation theory - people are influenced by the interactions of historical and social environment (in particular, events related to them) determining the quality of life during the important period of growing up and personality development. It is significant that each generation is characterized by diverse beliefs, features, interests and expectations that are common to all its representatives (Kachniewska, Para 2014, p. 154).

As noted by J. Peterson, as a result of participating in a significant historical event, people shape common experiences that affect the formation of a generational bond (Wyka 1977, p. 50). There are many reflections on this subject in the literature. For example, it is worth quoting the words of aforementioned K. Mannheim, that the necessary condition for recognizing someone as a representative of a given generation is not being born at the same time and in the same cultural area. Common position of members of the group in the social and historical processes is important for the formation of a generation. Considering the concept of "generation" at the individual level, one should point to the possibility of individualism, but all representatives share the formation of a common awareness about the experienced fate, similar attitudes, rules of conduct, perception of reality (Hassa 2015, p. 49).

According to K. Wyka, representatives of generation can be aware of generational separateness resulting from a generational event and the conflict between young and old generations. A different view was expressed by K. Kruszewski, who claims that individuals who are representatives of a given generation do not have to have a formed consciousness, it is enough that they constitute a separate generation group (Hassa 2015, p. 50).

Summing up the considerations on the subject of generations, one can refer to the work of W. Dilthey, in which there is a broad definitional context referring to this concept. This author, focusing on social conditions characteristic of the formation of new generations, notes that the same generation is defined as "all those who, in a sense, are adults together, that is, they have a common childhood, a common youth and for whom the day of maturity is the same. This makes people have a deeper sense of community. Those who during the adolescent years experienced the same influence, make up a generation. Thus understood generation creates a circle of individuals, who due to the experience of the same great events and changes that took place during their adolescence, despite the different factors that later joined in, are connected in a coherent whole" (Wyka 1939).

Characteristics of generation Y

Generation Y are people born in the years 1980-1994. They were raised in prosperity and the spirit of high self-esteem. The result of exaggerated concern for the upbringing and education of children is their focus on success and personal development. The culmination of education and preparation of children to acquire skills in the sphere of their interests was to send them to study in order to obtain a satisfactory job. Obtaining a master's degree contributed to the strengthening of self-confidence. It is assumed that they belong to the best educated generation in comparison to the others (Tulgan 2009, pp. 7-10).

People belonging to this generation grew up in contact with modern technologies. Due to easy access to the Internet, social networking is an inseparable part of their lives. They spend less and less time on using library collections (Jordan 2014). When characterizing the representatives of generation Y, a fragment of A. Gumowska's statement taken from Newsweek is worth quoting: "In Warsaw's Powiśle, they can be looked at closely: they sit in a trendy cafe on the deckchairs - young, beautiful, well-groomed, well-dressed. Relaxed and sipping coffee. One-third talks and simultaneously writes something on smartphones. They take pictures with their phones to instantly post them on Facebook" (Gumowska 2013, pp. 16-19). Thus, the development of this generation was largely influenced by the development of modern computer and information technologies, which contributed to opening new development opportunities to them. The Internet had a decisive influence on their way of looking at the world, solving problems and communicating.

Familiar with the latest technologies, they have an impressive knowledge and many skills that can be useful to a potential employer. The ability to smoothly navigate the Internet makes them familiar with the rules of free market. What distinguishes them from previous generations is their peculiar approach to the workplace (Gajda 2016, p. 219). It shows that they are willing to participate in carrying out major changes, as opposed to their parents who were attached to one position for their entire professional life (Radzięta 2014). They are considered to be excessively self-confident, seeking to attract attention, have a high need to be praised, rewarded, and they have trouble accepting criticism (Waldrop, Grawich, p. 1). Guided by the desire to get better wages, or when they feel unappreciated, they have exorbitant demands of their employers in this area and in matters relating to professional development (Gajda 2017, p. 118). They often have unrealistic expectations towards employers, believing that they can change the world from the very first days of work (Dziopak-Strach 2016, p. 49).

People belonging to generation Y attach great importance to the balance between work and personal life. They are the aftermath of economic crises in 2001 and 2008. It was a special period in their lives when they were acquiring knowledge and skills during their studies or beginning their professional career. Placed at the lowest levels in the hierarchy of positions, they were intended to be dismissed any day. From observations, information obtained from colleagues or from their individual experiences they realized that devotion to work did not allow to enjoy the benefits of life. This situation meant that they do not attach importance to collecting money with the assumption that in the future they will be able to use it. They worship the principle of being, not having (Bors 2016, p. 78).

The purpose of research

The aim of the research was to examine the professional expectations of representatives of Generation Y. For the purpose of this article, fragments of research based on a paper survey were presented. The study was conducted in the last quarter of 2017 among first-cycle full-time students at the Faculty of Management at the Czestochowa University of Technology. The study involved 208 students who attended the author's lectures on finances and accounting, public health and pedagogy of health and safety training. With knowledge of the age structure, it was found that 40% of respondents were employed.

Analysis of the obtained research results

In the first part of the research, the author's aim was to verify the approach of young people to work. On the basis of their interpretation of the essence of work, the level of understanding of this issue was determined. In order to achieve this, the respondents were asked a question, thus giving an image of their attitude towards work and its place in the hierarchy of values. The surveys were multiple-choice, therefore the sum of the total value in each figure is not equal to 100%. The collected data is shown in Figures 1 and 2.

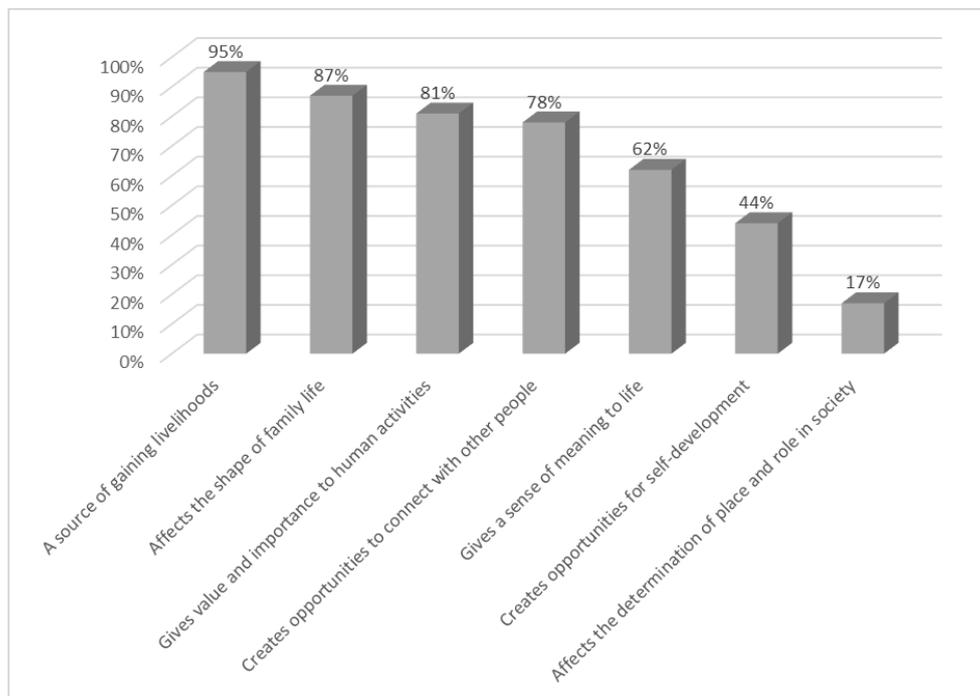


Figure 1. Attitudes of generation Y towards professional work

Source: own study

The analysis of the collected answers leads to the conclusion that young people emphasize the economic aspect of work. The highest number of indications (95%) obtained the view that work is a source of gaining livelihoods. 62% of respondents clearly state that work is a source of joy and satisfaction because it allows to secure a decent life. 87% of the respondents say that their professional

work influences the shape of family life and the scope of needs met by family members. Many people perceive a deep sense of work associated with the possibility of implementing activities that facilitate entering the career path, which gives a sense of fulfillment and satisfaction, thus making professional life successful (81%). In addition, they associate work with opportunities for further professional development (69%). As a part of their job, they can deepen their knowledge and interests, acquire or improve their skills, learn new things useful in life. Work gives young workers a chance to meet the need of self-development within their job position, as indicated by 44% of respondents. For 78% of young people, the social aspect is important, as it is expressed in the possibilities of establishing contacts with other people. At the workplace, they meet new people and often make friends. As research analysis has shown, 17% of respondents see the impact of work on determining their position in society. They believe that through professional performance they achieve a high level of satisfaction, a sense of accomplishment which affects the growth of their sense of belonging in the group and an increase in social recognition.

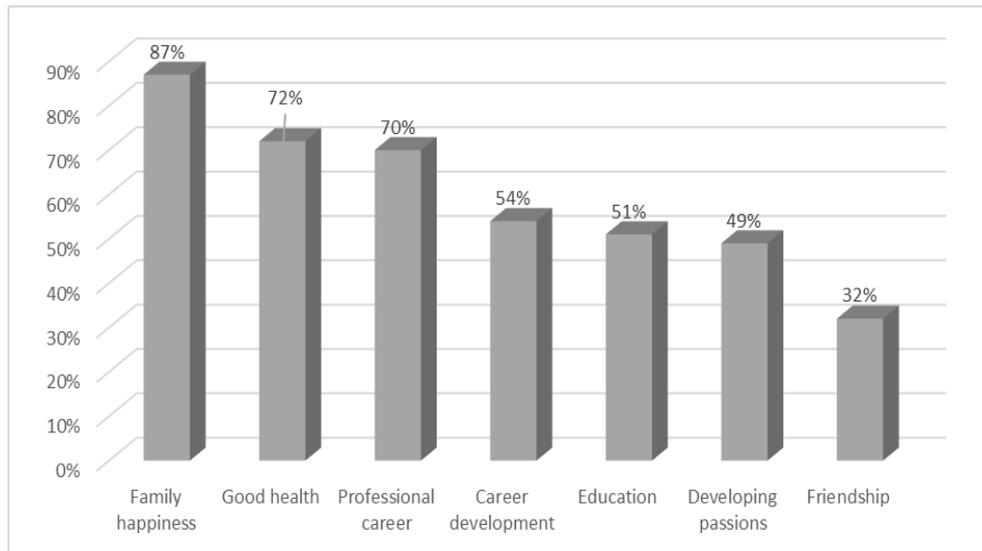


Figure 2. Place of work in the hierarchy of values

Source: own study

According to this research,, among the most important of the values of the representatives of generation Y were: family happiness (87%), good health (72%) and professional career (70%). More than half of respondents said that work gives meaning to their lives if it creates opportunities for making a career (54%). Young people also value education (51%) and developing their own passions (49%), which affect the ability to develop their potential. The least valued is forming friendships (32%).

This study aimed to determine the approach of representatives of generation Y to their own careers. The focus was on obtaining information on the reasons why they made the decision to start a professional activity. The results of this part of research are presented in Figure 3.

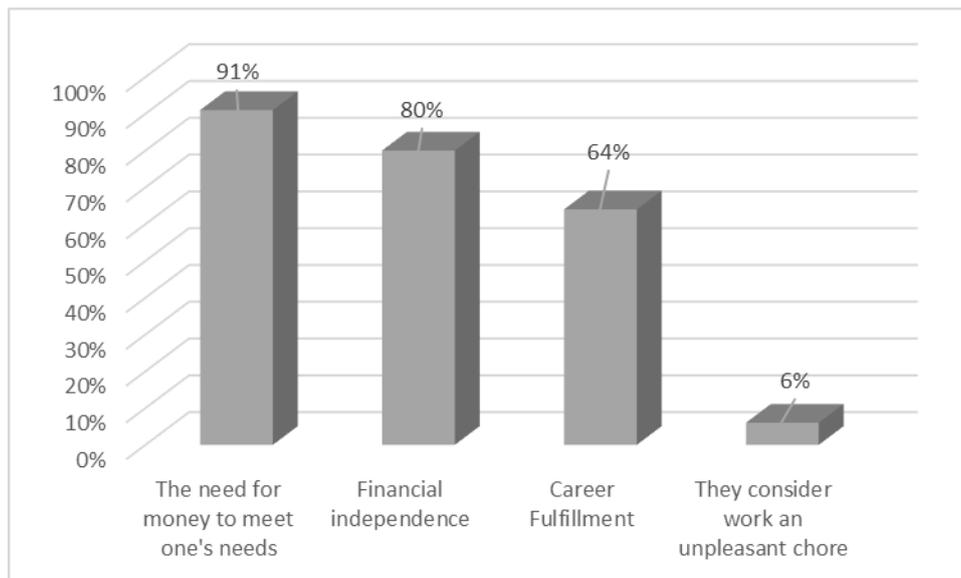


Figure 3. Reasons why representatives of generation Y have taken up a job

Source: own study

Young people participating in the survey indicate a desire to become financially independent (80%). The trend towards independence may stem from the fact that a considerable part of representatives of generation Y still lives with their parents. Another strong reason (64%) is the opportunity of self-development and collecting new experiences, which affects the desire to pursue a professional career. They feel satisfied with life situation in the professional sphere. They want to work, even if it is not necessary. 91% of respondents consider the prospect of earning money as a reason for professional activity, the collection of which allows them to fulfill their dreams and satisfy their needs. Only 6% of respondents consider work an unpleasant chore.

People belonging to generation Y were raised by their parents with a sense of responsibility for their actions. They were encouraged to believe in their own abilities so that they could give a lot of themselves. This allows them to increase their self-awareness about the effectiveness of their choices, which, combined with courage, self-confidence, and the ability to achieve goals, makes them look for work that gives them a chance to fulfill their professional dreams. Respondents asked what criteria they are guided by when choosing an employer indicated a few key aspects presented in the figure below.

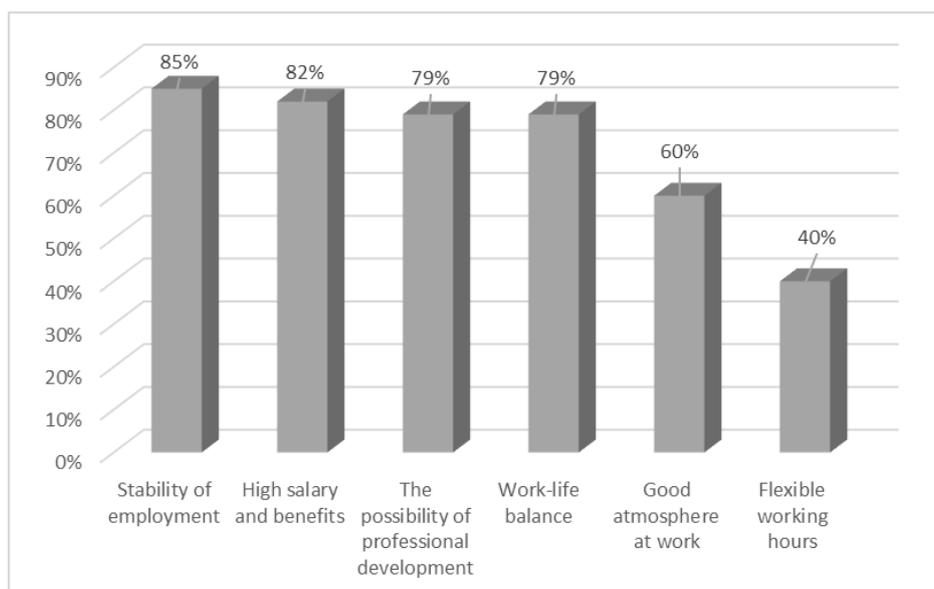


Figure 4. Expectations of generation Y towards the employer

Source: own study

Research shows that 85% of respondents want stable employment and hope that they will be able to sign an employment contract. An important factor determining the choice of employer (82%) is also high salary and additional benefits. It is connected with the desire to improve the quality of life - satisfying many needs and leading a comfortable private life.

Another factor is the support from the company and its ability to offer an opportunity for professional development, which is important for 79% of respondents. The respondents strive for successes while maintaining work-life balance (79%), so that the work does not force them to give up important matters in their lives, but allows them free time to carry out many activities outside of work. Of great importance for 60% of respondents is positive atmosphere in the workplace. The young generation pays attention to flexible working hours - 40% of respondents indicate this answer.

Conclusion

The conducted research proves that the representatives of Generation Y are confident young people who are able to specify their expectations towards their professional work. An important conclusion is that occupational work has an important place in their lives, because, on one hand, it determines their ability to achieve financial independence and, on the other, allows them to implement personal and professional plans. It is important for them that professional work should give importance to their activities, influence the shape of their family life, give them the opportunity to develop and self-fulfill and make contacts with other people. This research has made it possible to get acquainted with the views of the young people on the reasons for which they have taken up a job. The vast majority of respondents started working because they needed money to meet their needs. Another decisive motive that encourages young people to look for a job is their desire to achieve financial independence and professional fulfillment.

It is worth emphasizing that work is neither the only nor the most important value for representatives of Generation Y. The research shows that family happiness and maintaining good health turned out to be the highest value, while professional work was in third place. The following were also important: planning a professional path, getting a satisfying education, developing passions.

Representatives of this young generation bring new challenges with which employers must cope. Therefore, the expectations of this generation towards employers arouse interest. They expect stable employment, which they consider to be an attractive feature of an employer. The respondents' declarations show that they focus their attention on professional development, the possibilities of self-realization, which will lead to an increase in their sense of job satisfaction. Employees also expect high salary and additional benefits offered by the employer. Research has shown that flexible forms of employment that could facilitate the work-life balance are popular among respondents. The comfortable atmosphere is not without significance for job satisfaction.

Understanding the expectations of Generation Y towards work is valuable from the employers' point of view, as it enables organizations to prepare attractive employment offers aimed at increasing their commitment to efficient work. Due to the fact that Generation Y is the first group in Poland brought up in the new political and economic conditions, their needs and expectations require a change in the approach to them as employees and different forms of managing them.

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EVOLUTION OF THE SOCIAL SECURITY SYSTEM IN POLAND

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Abstract: Social security is one of the most important elements of each state's social policy. The state government, being the system creator, develops adequate legislation, implements the laws and provides financial resources for the system operations. The scope and structure of the system financing is, however, non-uniform and vary in terms of volume and principles of co-funding. The aim of this paper is to present and discuss possible options for the restructuring of the system to make it more homogenous and based on a rule of individualization of the funding. Firstly, the study describes the characteristics of each element of the social security scheme in Poland. In the next section of the paper, the rules of financing the system are outlined with a breakdown of costs incurred by the state for each element of the system. In the last section of the paper, a concept of evolution of the elements of the Polish social security scheme, with a particular emphasis on the rules of financing is presented.

Keywords: individual social security account, insurance technique, social security, system funding techniques, system reforming

Introduction

Social security, as an element of the government's social policy, is a very important aspect contributing to the efficient functioning of the concept of so called "welfare state". One of the assumptions of this concept is to ensure the provision of adequate standard of living for those citizens who are unable to support themselves through work or savings. The level of social services and model of financing of social benefits always depend on the state policy and sovereign decisions of its government. Poland, a new Member State of the EU, should adjust the rules of its social security system so that the solutions used to date do not cause an increase of the poverty rates in our country, and also to prevent migration of workers who seek employment opportunities in the EU countries with higher welfare benefits.

Methodology of the research

In accordance with applicable laws relating to the social security program, social protection in Poland includes: social insurance, health insurance, redundancy insurance, rehabilitation of the disabled, public assistance, public family support, welfare coverage for uniformed services, and, as some authors state, welfare provisions for farmers. The table below presents the current model of the Polish social security program.

Table 1. Elements of social protection in Poland

Component of social security scheme	Types of social risk	Types of benefits/assistance measures	Responsible entity
Social insurance	old age, sickness, maternity, death of the breadwinner, work-related injuries and diseases	cash transfers and in-kind benefits	Social Security Administration, state-owned insurance companies, banks, brokerage offices, insurance companies
Health insurance	health, life	in-kind benefits	National Health Fund and subordinate entities in each voivodeship
Redundancy insurance	unemployment	cash transfers and in-kind benefits	National, voivodeship and regional labor offices
Disability benefits	disability	cash transfers and in-kind benefits	State Fund for Rehabilitation of the Disabled Persons and subordinate entities in self-governed circuits
Social welfare	poverty	cash transfers and in-kind benefits	Voivodeship and regional social welfare centers

Family assistance	child poverty	cash transfers	Voivodeship and regional social welfare centers
Provisions for uniformed services ¹	old age, sickness, maternity, death of the breadwinner, work-related injuries and diseases	cash transfers	Disability benefit authorities in the Ministry of Interior Affairs, Ministry of National Security, Prison Services, State Fire Services
Provisions for farmers	old age, sickness, maternity, death of the breadwinner, work-related injuries and diseases	cash transfers and in-kind benefits	Farmer's Social Security Trust Fund

1-The police, armed forces, prison services, fire services

Source: In-house study (Garbiec 2017, p. 533)

The data presented in the table show that the social security system in Poland is not homogeneous (the revenues come from different government, or private, sources, and the benefits fall into two categories: cash transfers and in-kind support). The social risks are duplicated throughout the system components, which increases the overall cost of system handling (many sources of funding the same tasks). Thus, some comprehensive measures must be taken to adjust, or thoroughly reform the mode of financing of the components of social protection scheme.

This paper has been prepared on the basis of financial data of public institutions implementing social security in Poland and own research in this area.

The aim of this paper is to present a scale of the government's contributions to social welfare, and to discuss options for changing the system to reduce the state's contribution rate in the funding of social security programs and to allocate leftover funds for economic development or other purposes beyond the social security system. The analysis was based on the financial performance result calculated by dividing total spending on social welfare by incoming revenues (grants excluded). The analysis was made in regard to the last five years (2012-2016).

Results

The theory of social security defines three basic techniques (methods) of social benefit financing: pay-as-you-go financing (insurance), public funding (provision) and non-contributory, subsidy funding (poverty-relief). Alternatively, capital-accumulation and savings scheme can also be distinguished in financing of social security. The characteristics of different financing techniques in the Polish social security system are presented in the table 2 below.

Table 2. Types and conditions of different financing techniques in the social security system

Financing technique	Requirements	System type ¹	Location in the Polish social security system	Benefit type	Source of funding (entity)
Public funding (provision)	People belonging to a certain group are eligible for these benefits, with no boundary requirements	DB	Social security for farmers	Cash transfers	Public funding (93-95%) + contributions (5-7%)
		DB	Social security for uniformed services	Cash transfers	Public funding (100%)
Subsidy funding (social grants)	A means-tested technique, people who belong to a certain social group must satisfy specific personal and financial circumstances to qualify, e.g. if income per member of household falls below the lower earning limit	DB	Social aid	Cash transfers+ in-kind benefits	Public funding (100%)
		DB	Family support	Cash transfers	Public funding (100%)

Pay-as-you-go plan	Benefits depend on accumulated assets, based on a principle of national solidarity ²	DB	Unemployment benefits	Cash transfers+ in-kind benefits	Employer (100%)
		DB	Disability benefits	Cash transfers+ in-kind benefits	Employer (100%)
Savings (individual-account) plan	Benefits depend on accumulated assets, principle of national solidarity is not applied ³	DC	Pillar 1 (redistributive pension)	Cash transfers	Employee (insured) + employer (~70% + ~30% public funding)
Capital-accumulation and investment plan	Benefits depend on accumulated assets, (principle of national solidarity is not applied), assets are invested on stock markets	FDC	Pillar 2	Cash transfers	Employee (insured) (100%)
		FDC or DB	Pillar 3	Cash transfers	Employee (insured) + employer (100%)

1- There are a few primary social security financing systems:

DB - defined benefit plan, DC - defined contribution plan, FDC - financial defined contribution,

2- The formula of redistribution of the income from the rich to the poor,

3- It is based on a principle: "The more you accumulate, the larger will be the benefit".

Source: *In-house study*

The reform of the Polish social security system in 1999 replaced one general insurance (social and, indirectly, health) contribution by several contributions for each type of the protected risk covered by the system. The amounts of the contributions including health and redundancy insurance are presented in the table 3 below.

Table 3. Amounts of the social security contributions and redundancy insurance contributions in the years 2012-2017

Year	CONTRIBUTIONS TO SOCIAL SECURITY TRUST FUND [%]					Health Insurance contribution [%]	Labor Fund contribution [%]
	Pension	Disability	Sickness	Work-related accident or injury	Total contribution amount		
2012	19.52 (12.22) ¹	8.00	2.45	1.67/ 1.93 ²	31.83 (24.53)	9.00	2.45
2013	19.52 (12.22)	8.00	2.45	1.93	31.90 (24.60)	9.00	2.45
2014	19.52 (16.60)	8.00	2.45	1.93	31.90 (28.98)	9.00	2.45
2015	19.52 (16.60)	8.00	2.45	1.93/ 1.80 ¹	31.80 (28.88)	9.00	2.45
2016	19.52 (16.60)	8.00	2.45	1.80	31.77 (28.85)	9.00	2.45

1- Total contribution without contribution to the second pension pillar.

2- The contribution was 1.80% from 1 April,

Source: *In-house study on the basis of (<http://www.zus.pl/>)*

Social security contributions (pension, disability, sickness) are insufficient, and the mere system has been financially inefficient since the very beginning of the funding reform, i.e. since 1999. ¹⁴ The table 4 below presents the measures of efficiency of the social security system.

¹⁴ A decrease of social security system efficiency was discussed at the conference „**Social Security Administration – Entrepreneurs, Improvement of relationships and Good Practices**”, 14 September 2017 r., Szczecin, University of Szczecin, Faculty of Economic Sciences and Management,

Table 4. Financial efficiency of the Social Security Trust Fund (in millions PLN)

Type of transfer/ Financial efficiency	YEAR				
	2012	2013	2014	2015	2016
Total revenue (including subsidies)	174123	191481	186577	196115	208678
Subsidies from the state budget	39521	75689	30363	42066	44848
Revenue excluding subsidies (contributions and related receivables)	134602	115792	156214	154049	163830
Total expenditure	176440	204381	195014	201717	208075
Financial effectiveness ¹	0.7628	0.5665	0.8010	0.7636	0.7873

¹The effectiveness ratio is calculated by dividing total cash flowing in (revenue excluding subsidies) by expenditure

Source: In-house study on the basis of the Annual Statistical Bulletin of the Republic of Poland (<https://stat.gov.pl/obszary-tematyczne/roczniki-statystyczne/roczniki-statystyczne/rocznik-statystyczny-rzeczypospolitej-polskiej-2017,2,17.html>)

The data presented above show that the Polish social security system is inefficient, as it is not financed through insurance contributions, but it uses a hybrid model combining the contribution trust fund and state budget subsidies. If the current model of the system continues to be operated, it will inevitably cause social security's financial crisis, which in turn will ruin the state budget - its financial guarantor.

One of the components of the social security system is health insurance financed by contributions at a rate of 9% of the total social security contribution assessment basis, of which 1.25% is paid by the individual and the remaining part (7.75%) is deductible from the individual's tax as a credit, so in practice it is financed by the state fund. The table 6 below shows the effectiveness of this system.

Table 5. Financial effectiveness of the National Health Fund (NFZ) (in millions PLN)

Type of transfer/ Financial efficiency	YEAR				
	2012	2013	2014	2015	2016
Contributions	60 312	62 084	64 388	67 090	70074
Other revenue including state subsidies	2 241	2 122	21164	2718	3236
Total operating cost	62 005	64 216	65790	70109	73600
Health benefit cost	59458	61652	63198	67502	70854
Financial effectiveness ¹	0.9726	0.9667	0.9786	0.9569	0.9520

¹The effectiveness ratio is calculated by dividing total cash flowing in (revenue excluding subsidies) by expenditure

Source: In-house study on the basis of (<http://www.nfz.gov.pl/bip/finanse-nfz/>)

From a financial perspective, the operation of the National Health Fund is close to perfection, with effectiveness indices of more than 95% and almost zero participation of the state. However, a major problem of this part of the social security system is quality of, and waiting time for services. These indicators are worsening year by year. Some health care services require waiting times of several years and sometimes elderly people die before they get treatment (a service is never delivered then). This system organization was implemented by the reform in 1999. From a perspective of time, it became apparent that the quality of the system had been much better, and the administrative expenditures (operating cost) much lower before the reform. In the pre-reform system, all individuals covered by the social insurance scheme were entitled to receive free health care services and no extra contributions were collected. In the new model of social security, huge administrative structures funded by the participants were created, which not only failed to improve, but in fact caused the deterioration of the services provided. Because this component of the social security deals only with in-kind benefits, it will not be discussed in the following part of the paper.

Another component of the social security system is redundancy insurance financed through separate premiums paid to the labor trust fund. The effectiveness of this component is presented in the table 5 below.

Table 6. Financial effectiveness of the Labor Trust Fund (millions PLN)

Type of transfer/ Financial efficiency	YEAR				
	2012	2013	2014	2015	2016
Total revenue (including subsidies)	11234	10140	10924	10888	12121
Subsidies from the state budget	-	-	-	-	-
Revenue excluding subsidies (contributions and related receivables)	-	-	-	-	-
Total expenditure	9634	11057	11080	10934	11052
Financial effectiveness ¹	1.1660	0.9170	0.9859	0.9957	1.0967

¹The effectiveness ratio is calculated by dividing total cash flowing in (revenue excluding subsidies) by expenditure

Source: In-house study on the basis of the Annual Statistical Bulletin of the Republic of Poland (<https://stat.gov.pl/obszary-tematyczne/roczniki-statystyczne/roczniki-statystyczne/rocznik-statystyczny-rzeczypospolitej-polskiej-2017,2,17.html>)

This component of social security meets the standard requirements to be referred to as insurance. The percentage of grants from federal funds to this security element is minor and negligible, it is financed almost entirely by taxes from employers.

The last component of the social security system in Poland includes benefits for the disabled people. These benefits are financed through contributions calculated using an algorithm depending on the number of total number of employees in a company and the percentage of people with disabilities.¹⁵ The table 7 below shows the aggregate incoming revenue and expenditure of the State Fund for Rehabilitation of the Disabled Persons.

Table 7. Financial effectiveness of the State Fund for Rehabilitation of the Disabled Persons

Type of transfer/ Financial efficiency	YEAR				
	2012	2013	2014	2015	2016
Total revenue (including subsidies)	4889	4618	4669	4677	4705
Subsidies from the state budget	748	745	745	742	742
Revenue excluding subsidies (contributions and related receivables)	4141	3873	3924	3935	3963
Total expenditure	4836	4872	4760	4600	4720
Disability benefit expenditure ¹	2080.2	2199.6	2267.3	2385.1	2427.3
Financial effectiveness ²	0.8562	0.7949	0.8243	0.8554	0.8396

1- Fully funded from the state budget

2 -The effectiveness ratio is calculated by dividing total cash flowing in (revenue excluding subsidies) by expenditure

Source: In-house study on the basis of the Annual Statistical Bulletin of the Republic of Poland (<https://stat.gov.pl/obszary-tematyczne/roczniki-statystyczne/roczniki-statystyczne/rocznik-statystyczny-rzeczypospolitej-polskiej-2017,2,17.html>)

This insurance component of social security system is a misconception, or in fact an attempt to conceal another tax for businesses. All allowances and benefits available to people with disabilities should be government- sponsored in full. If social benefits paid to these people are funded by the state, any in-kind allowances provided by the State Fund for Rehabilitation of the Disabled Persons should also (or first of all) be financed using this technique

Discussion

Because of demographic and financial aspects, the social security system in Poland requires improvement, in particular as far as its insurance elements are concerned. One of the most important reasons for the amendments of the system is a significant funding shortfall of the Social Insurance

¹⁵ Any employer employing at least 25 full-time employees must pay monthly contributions to the State Fund for Rehabilitation of the Disabled Persons in the amount calculated as 40.65% of an average salary divided by the number of employees equal to a difference between the employment rate allowing to achieve the disabled employment index of 6% and the actual percentage of the disabled people employed, which is expressed by an equation. The calculations are made using the equation: $Kz = 40.65\% \times Pw \times (Zo \times 6\% - Zn)$; where: Kz - amount committed, Pw - average salary in the previous quarter, Zo - total number of full-time employees, Zn - number of full-time disabled employees .

Trust Fund. If the existing system is preserved, the state budget will soon face a huge deficit. Such phenomena as ageing population and declining birth rates (compared with the 1950s - 1980s of the last century) are demographic challenges to cope with in the future: they mean less people to pay taxes and contribute to the social security and relatively more people to claim pension and qualify for other benefits. The structural reform of the social security implemented in 1999 caused a regular increase in the deficit of the Social Insurance Trust Fund. The reform assumptions and efforts aiming to improve the system efficiency have so far caused a rapid deterioration of its financial condition and, on the other hand, increased number of people who live at, or below the poverty level (i.e. social security beneficiaries). Over time, this reality will encompass most of the retired people in Poland.¹⁶ The table below shows a scale of the financial downturn the Social Insurance Trust Fund will face very soon.

Table 8. Financial prognosis of the Social Insurance Trust Fund for the years 2018-2022 (in millions PLN)

Year	Incoming revenues			Outgoing expenses			Financial effectiveness ¹			
	Variant 1	Variant 2	Variant 3	Variant 1	Variant 2	Variant 3	Variant 1	Variant 2	Variant 3	Mean
2018	176135	169460	181426	232494	234558	229871	0.7575	0.7224	0.7892	0.7563
2019	185543	175474	192820	245294	247460	242285	0.7564	0.7091	0.7958	0.7537
2020	195971	181699	205399	259529	261306	256206	0.7551	0.6953	0.8016	0.7506
2021	206564	187582	218545	274952	272832	271489	0.7512	0.6875	0.8049	0.7478
2022	217704	193754	232579	290988	290330	287641	0.7481	0.6673	0.8085	0.7413

1. The effectiveness ratio is calculated by dividing total cash flowing in by expenditure

Source: In-house study on the basis of: (<http://www.zus.pl/documents/10182/24106/PrognozaFUS20182022.pdf/2cc8d322-f9f2-4bb4-98d2-faef1618a9b9www.zus.pl>)

Since social security system currently faces a number of difficulties arising of changes in the demographic and social structure, there is an undisputed need for a transformation to improve the system efficiency. Technological development will also account for an increase in payment of social benefits. Notwithstanding a foreseeable economic growth or an increase in birth rate, taxpayers will anyway have to face the reality in which social security benefits will guarantee minimum living standards not only to socially excluded individuals, but also to chronically ill, disabled or elderly people. The sooner it is realized and appropriate measures are taken, the less unpleasant will be the reality to be faced with and the better effects of the assistance provided by the state. This study is an attempt to point out the possibilities of changes in the social security system that will improve the efficiency of the system components and will allow better use of the funds in the implementation of the social policy goals in Poland.

Conclusion

The following changes are needed in order to improve social insurance and other components of social security and to secure funds for payment of benefits:

- To relinquish separate health insurance and to reinstate the previous solutions.
- To transfer maternity risk into family benefits. Pursuant to the definition of social protection, maternity risk cannot be considered a social risk comparable with sickness, work-related accident/injury or old-age risks.
- To transfer farmers into social aid. Payment of welfare provisions under the name of social insurance in a manipulation tactic to conceal the fact that social benefits paid to farmers are financed by all taxpayers and not by the beneficiaries (i.e. farmers).
- Financing of in-kind benefits for the disabled using the insurance (contribution) technique burdens the taxpayers with one more tax. These benefits should be financed in a transparent way (correspondingly to social disability benefits) using the provision (public funding) method.

¹⁶ A disgraceful example of the effects of the reformed social security system is the amount of the lowest pension calculated in the "new system", which is 4 groszys per month; this information was provided by the Minister of Labour and Social Policy in a radio program broadcasted by Radio ZET!!! <https://www.wprost.pl/kraj/10038636/Rafalska-Najnizsza-emerytura-wyplacana-dzisiaj-przez-ZUS-wynosi-4-grosze.html>.

- To introduce long-term care insurance as a form of protection in case of functional decline (correspondingly to the German social security solutions).
- To transfer the redundancy insurance into social insurances (correspondingly to the British social security solutions). The ultimate aim is to create individual social security accounts (ISSAs).
- To effect the concept of individual social security accounts (ISSA) which will allow the insured people to fully use the capital accumulated on an individual account when exercising the old-age risk.

All insurance (financial in particular) elements of social protection should be financed with the savings technique (where the monthly benefit depends on the value of the capital accumulated on an individual account) operated as a "communicating vessels system". In the ISSA concept, any amendments and/or adjustments in one component automatically cause amendments in other components (Garbiec 2013, p.6). An Individual Social Security Account should encompass pension, disability, sickness and redundancy insurances. Adoption of this new approach would lead to a reduction of the pension fund deficit, and the insured people could be sure that the contributions paid by them to the disability and sickness funds are not paid out to other beneficiaries whose claims are often groundless or unjustified. The benefit payment scheme operated under the above rules would definitely reduce both number and volume of benefits and disability allowances. Any unused money gathered on an ISSA would be automatically shifted to pension fund to increase the amount of future pension benefits (Garbiec, 2016). Prior experience, for example with respect to the operation of accident insurance in the Polish social security system, has shown that individualization (or beneficiary-orientation) of the contribution payment has positive effects on transparency and reliability of each social system.

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BUSINESS EXCELLENCE IN ROMANIA

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Abstract: Business excellence or company excellence are subjects that are increasingly being addressed in specialized literature on economics and university degree courses on quality management and business management. Much debated and commented, both by the general public and by the academic circles, business excellence has gained new content and taken on a different meaning, depending on the context and on the subjective interpretation of those who approach the subject. In this paper, I will present the situation in Romania regarding the following: how the Romanian firms are evaluated for the title / prize of excellence in business, the competent bodies performing the awarding events. In the beginning, I will present some aspects of the best-known approaches to business excellence developed by the afore-mentioned specialists.

Keywords: business excellence, business management, quality management, principles, criteria

Introduction

According to most of the opinions expressed by experts and professionals in management and business management (Heller, 1997; Collins, 2010; Peters, Waterman, 2011) "being excellent in business" is more than being good or very good in a certain area of activity. Excellence in business means having exceptional long-term results on a range of indicators that measure economic and financial performance and irreproachable behavior on: attitude towards customers, market behavior, attitude and relationships with their employees, relationships with collaborators, etc. By default, these results are achieved/driven by professional people and performant management processes. I consider that it's important that if a company is ranked as having excellence in its field of business, to maintain that title and improve it continuously. It happens that after some companies either receive a prize of excellence in business or get a top position in business excellence start to deviate from these values and behaviors, and then managers ask questions like, "Why are our customers not loyal to us anymore?", "Why suppliers choose other clients/collaborators?" and "Why are we no longer in the top companies in business excellence?". The answer to those questions is simple: because customers and the market in general, sense these differences and because they have a choice. I say these things as a mere observer and maybe even from the position of the client who has noticed these differences.

Therefore, in order to be excellent in business, a company or an enterprise must keep meeting the criteria and principles of excellence throughout its life. So we can say that it is similar to the title with which a person can be honoured and for which he receives the appellation of "excellence".

Methodology of the research

Research methodology is the study of work and research in business management belonging to some authors or institutions in the field, as well as the comparative analysis by: Thomas Peters and Robert Waterman with "Search for Excellence"; Robert Heller, with the work "Looking for European Excellence"; Jim Collins with the work "Excellence in Business", the publications of the European Foundation for Quality Management EFQM - European Foundation for Quality Management from our country: Catuneanu V., Drăgulănescu M., and the information published by The National Council of Small and Medium Sized Private Enterprises in Romania - CNIPMMR.

Some approaches to business excellence

In this chapter, I will briefly outline the most important approaches to business excellence and those which I consider most appropriate. I have presented another paper about these approaches in which I have dealt with this issue more extensively and I have analysed the criteria and models of business excellence in different regions of the world.

So the most representative contributions to the study of how business excellence is attained are those of Peters and Waterman; Heller; Jim Collins. These authors have been studying on a representative sample of companies in America and Europe for several years, looking at several

issues such as: the way in which activities are carried out; the evolution of economic and financial indicators registered over the years; strategic management processes (top management).; the company-level approach to product and / or service quality; attitude and relations with customers, market, collaborators; human resource management issues: motivation and relationship with the employees; aspects of values, ethics and organizational culture.

The results of a first study, conducted by Thomas J. Peters and Robert H. Waterman, were published in the reference paper "In Search of Excellence: Lessons from America's Best-Run Companies (1982)". They studied for two decades (1960-1980), on a sample of 62 American companies, in general terms, the issues stated above. These authors have identified, analysed and commented in their paper the principles through which excellence in business is achieved. In summary these are (Peters and Waterman, 2011, p.8-10):

- *The availability to make something* - to be always active, as the authors said something like "go there and try to do something".
- *Customer closeness* - to be interested and to seek to find out what customers want, to satisfy those desires with a formidable predisposition towards innovation.
- *Productivity through people*: workers are the main engine in obtaining productivity gains and quality in production, and new methods of motivation must therefore always be applied.
- *Autonomy and Entrepreneurship*: always opening up to new ideas, supporting new ideas and entrepreneurs - promoting and supporting innovation, creativity in the company.
- *Practice and motivation of value* - in the sense that excellent firms have a deep-rooted philosophy such as "respect for the individual," "make people winners," "let them stand out".
- *Concentrating on known things* - setting a strategy with clear objects, persist in that long-term strategy; focusing on a particular business strategy.
- *A simple organizational structure and a minimum staff* - simple structures that allow for flexibility and fewer managers at the corporate level.
- *Simultaneous functioning of decentralization and authority* - depending on the decisional situation.

The main conclusion of the paper is that management systems, corporate leadership need to understand that certain components such as: people, employees, customers (in a word - the human factor) are complex in thinking, perception, attitude and behavior. As a result, these components are the most sensitive factors and with the strongest and most powerful influence in the success or failure of a long-term business. That is why the attitude of top management needs to be changed in order to better manage these sensory-emotional factors.

Robert Heller is another author who analysed and presented the criteria of excellence in the paper: *In Search of European Excellence. The 10 Key Strategies of Europe's Top Companies* (1997). In his book he identifies the so-called ten ways that firms, if they apply them, can achieve excellence in business. These can be formulated as follows (Heller, 1997):

- *Decentralization and transmitting authority*: by wide or extended delegation of authority.
- *Turning the enterprise culture into the secret of success* – by practical application of the existing values from the organizational culture of the company.
- *Starting radical changes* - predisposition to radically change projects.
- *Dividing the company in order to achieve success* – by creating subdivisions within the company - subsidiaries, representative offices, local business centers at local level.
- *Exploiting the organization's potential through new leadership methods* – by capitalizing with the highest possible internal potential of the company.
- *Keeping the company at the forefront of the competition* - preserving the company's favorable position on the market.
- *Implementing constant renewal* – by applying redesign and renewal processes.
- *Motivating employees*– by promoting participatory management.
- *Making the working teams* – by establishing functional and efficient working teams.
- *Achieving total quality management* – by implementing the principles of total quality management.

In conclusion, Heller, in describing the ten ways that a company can achieve excellence, emphasizes radical change and permanent renewal of business, which makes us think about the basic principles of reengineering, addressed by specialists such as Michael Hammer and James Champy, Tomas Davenport, H. Johansson. Heller believes that a company must combine two or more strategic

guidelines. Contrary to this view, Peter Drucker is of the opinion that you need to be consistent with a single strategy, as we also find the opinion of Jim Collins.

Jim Collins reveals totally other values and principles through which a company reaches excellence (Collins, 2010) in his book "GOOD THE GREAT: Why Some Companies Make the Lap ... and Others Don't" appeared in 2001.

The study and conclusions are more profound and complex, but in short, these are Jim Collins' main ideas of excellence in business. The determinants identified by this author in his study are:

- *They had the highest level leaders - of the excellent type* - Leaders of the excellent type are leaders of level 5, as Collins calls them, with the following attributes: "silent, humble, kind, modest, reserved, shy, undervalued." Its basic features are:
 - irresistible personal modesty,
 - professional will,
 - ambition for the company firstly and concern for its success more than for wealth or personal reputation,
 - an firm decision to do what needs to be done,
 - strict but not ruthless.
- *First, they choose people and they then act* - First, "who" and then "what" refers to choosing the right people for the right places for them, that is "who" and then determining "what" each has to accomplish individually.
- *Managers must have the strength to deal with real issues and reality as a whole* - confronting the real problems of reality consists of reactions, attitudes and actions that are based on the belief that it can succeed, regardless of difficulties.
- *Focusing on a single strategy through the so-called "hedgehog concept"* - meaning the one thing you do best to produce a profitable market value. The hedgehog concept states that you can attain excellence in the business or any field if you intersect the following three aspects:
 - What you are passionate about?
 - If you can be the best in this passion?
 - If this passion produces added value and can be redeemed on the market?
- *A culture of discipline practiced by disciplined people* - have a culture of discipline within the company. All companies have their own organizational culture, some have discipline, but very few have a culture of discipline. Having a culture of discipline means to find disciplined people who engage in disciplined thinking and then go do a disciplined action.
- *Using the latest technology* - owning and continuously updating of the latest technologies and information technology in the company. Excellent organizations avoid technological flaws and bargains, becoming pioneers in the application of carefully selected technologies.

In conclusion, Collins, through his study, outlined other conditions that lead to long-term business excellence that were not previously known in the literature before.

About Excellence in Business in Romania

In our country, there is no relevant excellence study to identify clear criteria and conditions that lead firms to excellence in business, such as Peters & Waterman, Heller or Collins. There are reports, however, drawn up by a number of institutions qualified in the field by which firms are evaluated as excellent in business according to certain criteria. These criteria are in particular:

- *Applied Management Systems*. These systems are evaluated in terms of credibility, transparency and performance;
- *Finalised products and services*. They are evaluated in term of innovation and the value that matters to the client and market; merging in a whole with the principles of sustainable development;
- *Manufacturing processes*. They are also valued based on their innovation and technological novelty and, of course, integrated with the principles of sustainable and sustainable development;
- *Social Responsibility Projects*. This concept of social responsibility has been extended to new meanings, so it is currently appreciated by criteria involving cooperation projects on the sustainable development of the environment, prosperous economic and social development of a region or area, quality improvement projects life.

Among the institutions that are involved in the analysis business performance and success at national level are: (<http://www.cnipmmr.ro>):

- *The National Council of Small and Medium Sized Private Enterprises in Romania - CNIPMMR* - which was established in 1992 in order to represent the interests of SMEs in Romania at national and international level, and to support the growth and development of their performances.
- *Business Excellence College - CEA* operating within CNIPMMR. In our country, the College of Business Excellence (CEA) which was created in 1997, following the Belgian and Spanish model, with the objective of facilitating: the access of SMEs members of CNIPMMR to specific information; participation in the actions of the organization both internally and internationally; expressing the point of view on legislative initiatives.

These institutions at national level collaborate in the preparation of studies and with international bodies such as: European Union of Crafts and Small and Medium-Sized Enterprises, World Association of Small and Medium Enterprises - WASME, European Commission Directorate-General for Enterprise and Industry.

These institutions as well: CNIPMMR in partnership with the Ministry of Environment, Commerce and Entrepreneurship and National Trade Office and Chamber of Commerce, organizes the annual competition for the best companies in Romania. The first edition was organized in 1993 and since 2005 it has been registered as a trademark at OSIM –State Office for Investments and Trademarks, due to the size and the large number of participants. Among the criteria on which the ranking is based are the following: IPGA - Global Business Performance Indicator; Productivity; Fiscal value; Number of employees; Gross profit; Total assets; Category of enterprise: micro enterprise; small, medium and large enterprise. Several categories of prizes are organized: at the national level, at the branch level of activity, on the regions and on the counties.

Results

In preparing the reports prepared by the above-mentioned institutions, business excellence in Romanian companies is analyzed according to criteria such as:

- Innovation and leadership,
- Business strategy,
- Orientation towards the client and market,
- The quality of products and services proven by international certifications – The innovation chart,
- Promoting an efficient management,
- Organizational culture,
- Flexible services and structures,
- Technological innovation,
- Involvement in social - educational activities (social responsibility). Involvement of the organization in environmental, economic and social development projects.

Discussion

The information and opinions presented in this paper are formulated only on the basis of the research in the bibliographic references presented. My personal views may be limited in this regard, and I think it is useful that research continues or is complemented with other studies on this topic. In this paper there are not presented the awards excellent business or the excellent models in the field of quality corresponding to the models such as: The Deming Japanese Model, The American Baldrige Model, The European Foundation for Quality Management (EFQM) Model.

Conclusion

In Romania, performance assessment and business excellence analysis of enterprises are in the concern of organizations and institutions such as: CNIPMMR, The College of Business Excellence (CEA), The Chamber of Commerce. The evaluation is based on criteria that measure mainly the results and performance in business and secondly the processes that led to these results (the efforts), namely: applied management processes; strategy and strategic planning; customer and market attitude; the quality of products and services; human resources management, social responsibility projects.

In Romania, there has not yet been made a study, such as those conducted by the above-mentioned authors (Collins, Heller or Waterman) to identify the causes that lead to excellence in business. The before mentioned authors have conducted studies on a number of companies for a period of many years of their lives and have come to amazing conclusions, like Collins. Studies on business excellence in Romania are just evaluations of business excellence, so a measure of the results obtained according to certain criteria.

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EVALUATION OF THE SOCIAL IRRESPONSIBILITY OF A COMPANY: THEORETICAL SCHEME

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Abstract: In the last decade, especially since the financial crisis of 2008, the notion of corporate social irresponsibility (CSI) has become increasingly common in the context of corporate social responsibility. Both concepts should be clearly distinguished and defined both at the level of practice and at the conceptual level. The question of the mutual relation of these phenomena also needs to be clarified: are they the two extremes of one continuum, extending from total irresponsibility to full responsibility, or are they rather two types of relatively independent practices. The aim of the article is to better understand the relationship between CSR and CSI, by presenting arguments for both these concepts and proposing criteria for social assessment of corporate irresponsibility, allowing a holistic and objective evaluation of the company's activities in this area.

Keywords: Corporate Social Responsibility (CSR), Corporate Social Irresponsibility (CSI)

Introduction

Corporate social responsibility is a topic of interest for managers and theoreticians of management for over half a century. The very concept of corporate social responsibility turned out to be so complex and controversial that until now we have not been able to develop a uniform definition of this concept, acceptable for many schools within management sciences and practitioners themselves. On the contrary - the concept of corporate social responsibility started to evolve in so many different trends, concepts and dates that it is impossible to achieve a consensus nowadays. The article adopts the most common term: corporate social responsibility (CSR), which according to the ISO 26000 standard means the organization's responsibility for the impact of decisions and actions taken on society and the environment (ISO 26000).

In the last decade, especially since the financial crisis of 2008, the notion of social business irresponsibility (CSI) has become increasingly common in the context of corporate social responsibility. Intuitively, it seems to be the opposite, the antithesis of CSR and this is usually understood. The media almost every day report examples of ethically doubtful activities undertaken by various, often respected companies, which means that enterprises simultaneously engage in both socially responsible and socially irresponsible activities. Therefore, it seems necessary to separate and define these terms at the policy and practice level as well as at the conceptual level (Jones, Bowd, Tench 2009, p. 304). There is also a question about the mutual relationship of these phenomena and the assessment of enterprises involved in such practices; Are they the two extremes of one continuum, extending from total irresponsibility to full responsibility, or are they rather two types of relatively independent practices? The aim of the article is to better understand the relationship between CSR and CSI, by presenting the arguments for both these concepts and proposing criteria for social assessment of business irresponsibility, allowing a holistic and objective assessment of the company's activities in this area. The article uses two research methods: literature review (reference to conceptual and empirical studies) to justify the separateness (orthogonality) of CSR and CSI concepts, and logical analysis in order to construct two key CSI evaluation criteria as a proposal for the evaluation scheme.

What is corporate social responsibility?

There is no doubt that the phenomenon of corporate social irresponsibility (CSI) is as old as the business itself. However, this phenomenon had to wait for the financial crisis in 2008, when it turned out that the roots of this crisis lie in the irresponsible decisions and actions taken by the financial institutions of that time towards their clients. Social irresponsibility, as opposed to CSR, is still a margin of scientific interest.

One of the most commonly cited definitions says that corporate social irresponsibility occurs when a manager makes a decision that is (1) unethical in terms of the personal manager's value or (2) worse than other options when considering impacts for all parties (Armstrong, Green 2012 , p.12).

Many authors associate CSI with a lack of morality, considering them as an immoral practice based on fraud and manipulation towards stakeholders (Greenwood 2007, p. 316), or unethical management behaviors that neglect the well-being of others, such as ruthlessly preferring shareholders' interests at the expense of interests and expectations of others stakeholders (Windsor 2013, p. 1941). Other authors, in turn, emphasize the illegality of socially irresponsible activities that use specific negative external factors (eg gaps in the law or unclear legal solutions) (Clark, Grantham 2012).

Social irresponsibility of business can be treated as the opposite of corporate social responsibility (Ferry 1962, for: Popa, Salanta 2014, p. 140). Since CSR is defined as the business response to social expectations (fulfilling stakeholders' expectations), CSI is a lack of response, disregard or failure in meeting society's expectations (Herzig, Moon 2013, p. 1870). Table 1 below presents a dichotomous summary of the most important features of both concepts.

Table 1. A summary of the most important CSR and CSI features

CSR	CSI
proactive	reactive
bearing the consequences of their actions,	avoiding the consequences of their actions
compliance with ethics rules	non-compliance with ethics
compliance with the law,	acting on the border of the law, sometimes breaking the law
positive effect for stakeholders,	negative effect for stakeholders

Source: Own work

It can be seen that the common denominator of the ongoing discussion is that CSI is perceived as immoral and / or illegal corporate actions that have negative consequences for other stakeholders (it is usually referred to as lowering the level of social well-being) (Lin-Hi, Muller 2013, p.1932). The act of irresponsibility may involve violation of the law, but this is not a necessary condition due to incomplete contracts or lack of legal regulations on a global scale (Scherer, Palazzo 2011). Very often, CSI is defined simply by examples of irresponsible actions such as tax evasion, criminal fraud, price fixing, falsification of offers, bribery, unnecessary employee accidents, environmental pollution, waste of resources, contributing to economic inequality, false advertising , dangerous products, etc. (Christensen and Murphy, 2004; deMaCarty, 2009; Fox, 1996; Frooman, 1997; Ireland 2010, per: Riera, Iborra 2017). Social irresponsibility can have disastrous social, economic and business consequences, as illustrated by examples of Enron, Worldcom, Shell or BP. In extreme cases, it means breaking the law.

It should be noted that the concept of business irresponsibility is - like CSR - strongly contextually conditioned. This means that the assessment of the company's activities as socially irresponsible is conditioned by the cultural norms in force in a given society, legal regulations, state of the economy, standard of living and education, tradition, customs, etc. - which in addition constantly evolve and change. It can therefore be concluded that different behaviors, in different places and for different groups, will be perceived as socially irresponsible (Campbell 2007).

The most important issue that can help to better understand the idea of corporate social responsibility is the interrelation and dependence between CSR and CSI phenomena. A fundamental question arises as to whether business responsibility and irresponsibility constitute two extremes of the same continuum, i.e. whether CSR and CSI are mutually contradictory and contradictory in the sense that the company cannot behave simultaneously in a responsible and irresponsible way, or also, rather, two orthogonal concepts, i.e. two different, relatively independent phenomena that can occur simultaneously, at the same time.

Relation between CSR and CSI - continuity model (dichotomous)

The concept of continuity suggests that CSR and CSI present two extremes and are their opposites (Jones, Bowd, Tench 2009); At one end of the continuum is CSI, understood as a strict focus on maximizing and achieving profit by shareholders at the expense of other stakeholders, while CSR, located at the opposite end of the continuum, meets all the interests and expectations of a wide range

of stakeholders. It can be said that CSI is a shareholder model, while CSR is a stakeholder model. According to Jones and others such a dichotomous perception of social responsibility and irresponsibility allows for greater clarity and a better understanding of both these concepts (p. 301), and for discussions and positioning of various activities related to issues of corporate social responsibility.

Such issues may include various degrees of responsible and irresponsible actions and behaviors.

Although the bipolar CSI-CSR model proposed by these authors looks like a one-dimensional linear process in which investors, producers and consumers move from irresponsibility to being socially responsible, Jones et al. They argue that individuals, groups and organizations are not static, but move between the two extremes of the continuum. The traffic between these positions is bi-directional and is driven by external environmental factors such as legislation, politics, technology, finance, economics, culture and the like. While one of these factors may lead an enterprise to move towards CSR, another may encourage them to move towards CSI. Figure 1 presents the concept of CSI-CSR relationship continuity.



Figure 1. CSI-CSR relationship - continuity concept

Source: Jones, Bowd, Tench 2009, p. 394

Proposed by Jones et al. the dichotomic CSI-CSR model does not define the boundary between these two types of behavior, in other words does not show where social responsibility ends and social irresponsibility begins. This question is answered by another continuum model by Windsor (Windsor 2013). Both concepts are interdependent and constitute - as in the previous model - two extremes of the same continuum, with CSI being the lowest CSR limit. Figure 2 shows the continuity of the transition from CSI to CSR (here as CC) with a zero point or intersection point defined as compliance (mandatory or voluntary) with a set of legal and ethical norms. Windsor believes, therefore, that the lower limit - the zero point separating CSR from CSI - is compliance with the law, which is the minimum requirement of CSR (Figure 2). The question of exactly where this point should be should be the subject of a thorough debate (Windsor 2013, p. 1940; Rok 2013).

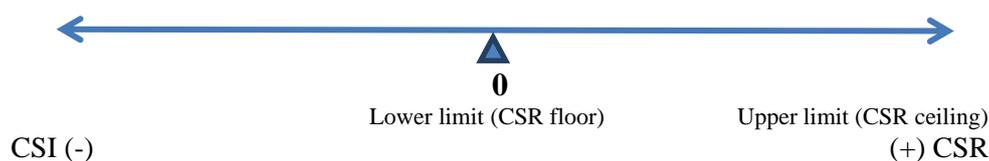


Figure 2. CSI-CSR relationship - concept of continuity with a border point

Source: Windsor 2013, p. 1940

The different way of defining both concepts at Windsor does not suggest, however, that a high level of CSR and CSI are mutually exclusive. CSR and CSI activities can not therefore be directly combined into one activity index.

The continuous approach is mainly based on the intuitively convenient scheme, allowing external observers to evaluate the actions taken by enterprises by moving it to the right (responsible) or left (irresponsible) side. From the point of view of the management, this approach is not very helpful in determining the strengths and weaknesses in this area as well as in making the right decisions.

Relation between CSR and CSI - an orthogonal model

The orthogonal approach assumes that both responsibility and social irresponsibility are two independent concepts. In contrast to the concept of the continuum, the authors preferring the orthogonal approach believe that CSR and CSI are not a zero-sum game, i.e. that greater involvement in CSR reduces CSI and vice versa (Strike, Gao, Bansal 2006; Muller, Kraussl, 2011; Lange,

Washburn 2012; Kotten, Moon 2012; Herzig, Moon 2013; Keig, Brouthers, Marshall 2015); However, they argue that the social responsibility and social irresponsibility of a given company may increase or decrease simultaneously, at the same time - completely independently of each other or in a clear causal relationship.

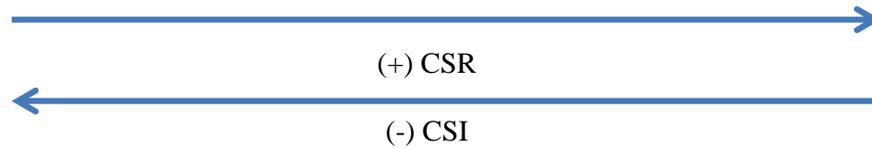


Figure 3. CSI-CSR relationship - orthogonal concept

Source: Own work

A number of arguments support the adoption of the orthogonal approach (Riera, Iborra 2017, p.154); Firstly - in the case of large international companies operating in many different geographical regions, it can be observed that some of their business units behave in a socially responsible manner, while others do not (usually this is related to the legal solutions in force in a given country and its culture) (Strike, Gao, Bansal 2006).

Secondly - an enterprise can be heavily involved in one aspect of social responsibility (eg environmental protection), but act irresponsibly in another dimension (eg treating employees or suppliers) (Herzig, Moon, 2013; Keig, Brouthers, Marshall, 2015).

Thirdly, the assessment of the social responsibility of the activities undertaken by the companies depends on the evaluator's point of view and therefore, in the eyes of some interest groups, the company behaves very responsibly, whereas in the eyes of other stakeholders the same action is assessed as completely irresponsible, eg shareholders and local community can have a completely different opinion about supporting a local social initiative (Lange, Washburn 2012).

Fourthly - there may be a cause and effect relationship between CSR and CSI: in many companies involvement in CSR is a strategy compensating socially irresponsible behavior (Kotchen, Moon 2012, Muller, Kraussl, 2011) - the more social or environmental damage the companies do, the more they also undertake socially responsible initiatives.

An additional argument in favor of the orthogonal concept is its usefulness from the point of view of managers. Separate recognition of socially responsible and irresponsible activities gives them the opportunity to deepen and more honestly assess the actions undertaken by the company, identify weaknesses and strengths and define a further strategy of conduct. The vast majority of authors prefer the orthogonal approach (Riera, Iborra 2017, p. 156).

The CSI assessment scheme

Empirical research shows that corporate social responsibility and irresponsibility can not be treated as a zero-sum game, because the same company can simultaneously demonstrate a high level of both behaviors. Therefore, an orthogonal model, not a continuum model, should be used for the overall assessment of the company's activities in the field of social responsibility. However, a question arises about measures that would reflect the extent of social irresponsibility, because it is certainly gradable. Such criteria could be - according to the author - intentionality and influence. Both proposed criteria for assessing the social scale of irresponsibility are derived from definitions defining the characteristic attributes of CSI.

One of the threads of discussion about the social irresponsibility of business is the distinction between intentional behavior, that is intentional and unintentional, and therefore unintentional (Lin-Hi, Muller 2013, Lange, Washburn 2012, Keig, Brouthers, Marshall 2015). Intentional CSI means that the enterprise deliberately takes actions that are disadvantageous or even harmful to stakeholders, such as corruption of local officials, non-payment of employees, tax evasion, etc. (Lin-Hi, Muller 2013, p. 1932).

Intentional social irresponsibility is characterized by two features; Firstly, it is usually aimed at achieving a higher level of profits, and thus is a means to achieve specific business objectives (eg illegal disposal of waste may be a way to reduce costs). Secondly, it requires some effort on the part of

the organization to hide it from public opinion, as it is a condition for the success of the entire operation. For a change, unintentional CSI means that the damage suffered by the stakeholders was unintentional, so they were not the result of conscious actions aimed at achieving a certain goal, but rather the result of a case, accident, catastrophe or just a side effect of certain activities (Lin-Hi, Muller 2013, p. 1932).

In such complex conditions in which enterprises operate today, the probability of entanglement of the company in unintentional CSI seems to be very high, which, however, does not "wash" completely its fault. The vast majority of authors dealing with CSR issues believe that social irresponsibility should be defined as intentional actions - the intended strategy of the company, whose ultimate goal is usually to maximize profit (Riera, Iborra 2017, p. 153). Thus, the degree of purposefulness, intentionality of actions taken by the company may be a good measure of social irresponsibility: the greater the intentionality of the company's behavior, the greater its social irresponsibility. The scale of actions (gradation of intentions) would start with completely unintentional accidental actions, unintentional actions, but resulting from obvious negligence of the company, further deliberately risky actions and exposing stakeholders to damages, to behaviors undertaken with full premeditation in order to achieve benefits for the company or managers (Figure 4).

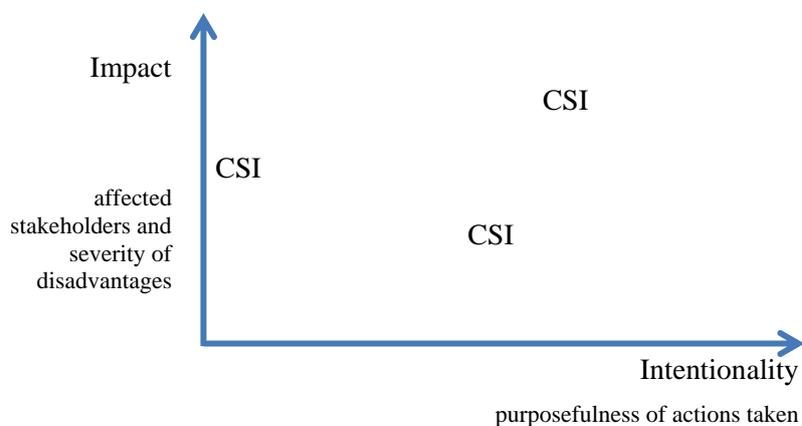


Figure 4. The CSI assessment scheme

Source: Own work

The second criterion, which allows to assess the degree of social irresponsibility of the enterprise is the impact of the action taken on the stakeholders, understood as the range of people / entities affected by its consequences and its nuisance (weight, size of damage). CSR and CSI are directly related to social welfare and the well-being of stakeholders (Windsor 2013, p. 1941), so the social irresponsibility of the company must be associated with a negative impact on third parties, which the society considers to be harmed not through fault.

In assessing the degree of social irresponsibility, it is not important which group of stakeholders was harmed, but rather its size and size of the damage caused. The "iron rule of accountability" of Davis should be recalled here, which makes the degree of the company's responsibility dependent on its ability to exert influence. This means that the more power and control an enterprise has over a given situation, the more responsibility it bears (Davis, 1975). Large transnational corporations should, therefore, be assessed more severely because of the extent of their impact - both the real one in the sense of social and economic consequences, and moral in the sense that it is a bad example for others and raising social skepticism and distrust of CSR.

It is extremely difficult (if at all possible) to build a universal scale of business irresponsibility, due to the fact that the rights, duties and social expectations of business are constantly changing and are strongly contextually conditioned - such a scale would have to be specific to a given industry.

Considering the possibility of defining CSI through examples of such activities mentioned in the literature, one can, however, try to define the basic consequences of business irresponsibility for stakeholders in a fairly general way. Arranging them from the least to the most acute is a few groups: from unfair operational practices (regarding the ethical aspects of doing business and business relationships); through consumer issues (unfair marketing practices, data protection, accessibility);

further polluting and environmental degradation; dishonest practices in the field of work (unfair treatment of employees, lowering or delaying wages, etc.), up to non-compliance with human rights, including exposure to health and life of stakeholders. Such a juxtaposition is of course not a normative character, but is an example of a subjective perception of the importance of particular issues.

In assessing the scope of the company's irresponsibility, it is also important to take into account the estimated number of stakeholders affected by some negative practice. Thus, the wider the impact of the company's activity, i.e. the greater the number of directly and indirectly affected stakeholders and the greater the extent of damage to stakeholders, the greater the social irresponsibility of the company. Both dimensions of business irresponsibility assessment can be summarized as follows: the greater the intentionality of a given company's activity and the greater its negative impact on stakeholders - the greater the irresponsibility of the company. The proposed criteria can be set in a coordinate system, creating a kind of map of irresponsibility, on which various irresponsible activities of the company are shown, or a resultant evaluation of such activities for the entire company. Figure 5 shows an example of a very estimated CSI assessment for several selected cases from recent years, widely described in the media, and regarding the offenses of well-known companies.

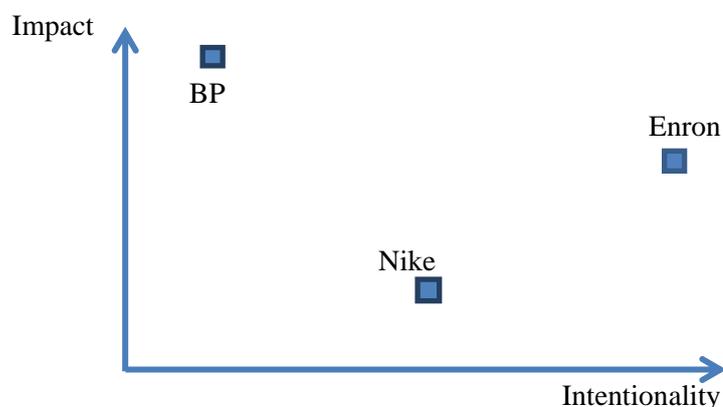


Figure 5. Examples of CSI assessment of selected companies

Source: Own work

Conclusion

It seems that a full understanding of corporate social responsibility is not possible without understanding the social irresponsibility of business.

The phenomenon of business irresponsibility can be seen as the opposite and complement of CSR, and both these concepts should be treated as the two extremes of one continuum. Much greater explanatory and applicative value, however, is to treat these concepts as closely related, but definitely separate.

Orthogonal approach allows to better understand the processes through which enterprises implement relationships with their stakeholders. It can also be a practical analysis tool for managers that allows identifying and responding to potential problems, and thus better adapting to a competitive environment. Its main advantage is to facilitate the analysis of all business practices undertaken in a given company - both positive and negative - reporting to management or external stakeholders and building strategies that strengthen social responsibility and prevent social irresponsibility.

The orthogonal approach to the CSR-CSI relationship can also be the starting point to build a comprehensive social assessment of the business's irresponsibility. The article proposes two criteria for the CSI assessment: intentionality of actions and their impact on stakeholders - both of them result from the features that appear in the definitions of corporate social irresponsibility. Such an assessment model would each time have to take into account contextual conditions, because the assessment of the scale of irresponsibility of an enterprise depends on many different factors. In combination with the same assessment of corporate social responsibility (CSR) practices, it would be possible to obtain a full, holistic picture of the activities undertaken by the company in this area. Arranging the

arguments for an orthogonal approach to CSR-CSI issues and proposing criteria for assessing the scale of social irresponsibility allows to deepen the understanding of this phenomenon, as well as fill important gaps in the literature on the subject. It is also a good starting point for further empirical research.

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PROBLEMS OF CONTROL IN SUPPLY CHAINS AND IMPROVEMENT OF PARTNER RELATIONS

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Abstract: From the point of view of enterprises cooperating in supply chains, there is a need to control joint actions to analyze the dynamics of results achieved by these entities, as well as the entire chain. The processes of controlling partnering enterprises are complex and not all areas of the partners' operations can be controlled completely. Significant differences also occur in the control processes carried out by the partners at the strategic and operational level. In addition, over-control of partners can lead to a reduction in their decision-making autonomy, which is usually resisted and causes conflicts. In connection with the above, the aim of the work was to check whether there is a relationship between the control processes carried out in the supply chains and the development of these relations. On the basis of conducted surveys, a statistical analysis was carried out, in which the most important results were presented and interpreted.

Keywords: control, partner relations improvement, supply chains

Introduction

Supply chain management is very difficult because it is a very complex task. There are many problems related to the existence of links of various types in the supply chain and many connections between them. Moreover, entities cooperating in supply chains often forget that their particular goals should not be more important than the goal of the entire supply chain, which is to provide the finished product to the final recipient. Thus, there occurs an issue related to the coordination of processes in the supply chain, certain control mechanisms should be used. The entity that usually undertakes this task is the leader, i.e. the entity having the largest impact on the other participants in the supply chain, and which is characterized by the highest bargaining power. Due to the position, the leader may impose certain actions on other entities in the supply chain, but he should do so with respect to them. Moreover, there are some areas of activity of enterprises that are their autonomous sphere and the leader should not violate them, unless they negatively affect the functioning of the supply chain. Nevertheless, the control activities undertaken by the leader may have an influence on the mutual relations of the partners in the supply chains. For this reason, the authors of the article have acknowledged the issue of control in the supply chain as interesting. Therefore, the aim of the study was to examine which areas of the partners' activities in the supply chains are controlled and how undertaken control activities in relation to the partners affect their mutual relations.

The aim of the work was achieved through the implementation of a survey study, directed to enterprises of the production sphere. Based on the collected data, there was made a statistical verification of the relationship between the use of control mechanisms in the supply chain and the occurrence of the partnership type relationship between the surveyed entities. What's more, the strength of this relationship was determined using the C-Pearson coefficient.

The work was divided into several parts: introduction, review of the literature regarding the problem under study, description of the research methodology, the main results of the research and final conclusions.

Supply chains – problems of partners control

Nowadays, each company aims to optimize the processes it carries out. At the same time, as some authors note, process optimization requires the implementation of control mechanisms throughout the entire value chain, including business partners and customers (Kerremans 2008, Jurczuk, Gabryelczyk 2015). Studies in the area of control usually focus on coordination within companies [Łęgowik-Świącik 2012]. However, an important feature of control is that it also includes the effect on the efficiency of cooperation between companies in supply chains (van Veen-Dirks, Verdaasdonk 2009, Szołtysek, Frączkiewicz-Wronka, Kotas 2012).

Process of control is critical to supply chains success and it can be achieved through supply chain performance measurement (Gunasekaran et al. 2004; Rashid, Haris 2012). The majority of partner companies controls their cooperation. This process involves realization, for example, audits or visits to partner enterprises. Most often, controlling is undertaken to check the compliance of the activities carried out with the standards established in specific partnership agreements (Kruczek, Żebrucki 2011, pp. 363-374; Chłąd 2012).

Partner companies have a fairly wide range of control mechanisms at the disposal. The basic criterion for the division of these mechanisms is related to the subject of control. In this area, it can be distinguished: control of partners' activities, control of cooperation results or operation of the entire supply chain (Kot, Ślusarczyk 2012) and control of the personnel / organizational culture of partner companies (Groot, Merchant 2000, pp. 579-607).

The importance of control processes in supply chains increases with the expansion of the partnership. There occur many problems in the relations between partners (Kempa 2016, Daroń 2017, Witkowski 2010). The more partners are involved in the supply chain, the more necessary is monitoring of the agreement and its individual participants. It aims to detect potential or existing errors in the functioning of these entities in the scope of a given relationship. According to H. Chwistecka-Dudek and W. Sroka, the control of partners is to ensure "high effectiveness of operations and objectivity of planning and control processes ..." (Chwistecka-Dudek, Sroka 2000, pp. 132). These authors believe that the processes aimed at checking the correctness of the partnership agreement should in particular concern (Chwistecka-Dudek, Sroka 2000, p. 132):

- fulfilling the terms of the contract by the partners,
- implementation of benefits planned at the stage of establishing cooperation,
- degree of satisfaction of employees of partner companies from existing cooperation.

Significant differences occur in the case of control processes carried out by the partners at the strategic and operational level. Financial control instruments may include: financial statements (enabling monitoring of liquidity, overall financial condition and profitability), balance sheet (illustrating the situation at a given moment), income statement (showing financial effectiveness in the audited period) and cash flow statement (showing the use of financial resources) (Stoner et al. 2011, p. 545-548). However, the vast majority of control in partner systems in the supply chains concerns the organizational and executive sphere.

Methodology of the research

To achieve the purpose of this article, there was conducted a survey among companies in the production (clothing) sector. Enterprises were selected for the study randomly, but the area of the study covered the area of the Silesian Voivodeship. Out of 3332 enterprises of the clothing industry, having their headquarters in the Silesia Province, 180 companies were selected for the study. The companies were randomly selected for the sample based on previously generated pseudo-random numbers in the spreadsheet. Using the randomness test of the sample, the representativeness of the test sample was confirmed. The following statistical hypotheses were adopted:

H_0 - a sample of production enterprises, which have their headquarters in the Silesian Voivodeship, is random,

against the alternative hypothesis:

H_1 : a sample of production enterprises with headquarters in the Silesian Voivodeship is not random.

Due to the fulfillment of the condition that $n_1 > 20$ lub $n_2 > 20$, the empirical value of U statistic was 1,64. Because for the significance level $\alpha = 0,05$ the critical value u_α for a two-sided test, read from the normal distribution table is 1.96, thus: ($U = 1,64 < 1,96 = U_\alpha$), so there is no reason to reject the H_0 hypothesis that the sample is random.

The research tool was a questionnaire containing 30 main questions, which were closed and semi-open, with closed questions in the amount of seventeen. The advantage of closed questions is the uniformity and ease of development, but there is a risk of not answering some questions. To avoid this, there should be left a gap for an additional answer, which was done in many questions. In ten of the thirty questions within the questionnaire, it was possible to mark more than one answer. In the questionnaire there were questions about the nominal and ordinal scale of the measurement. In some of the questions, the Likert scale was also used, because the data collected in this way are clear and they show the strength of the occurrence of the phenomenon. In one of the questions, the Likert scale

was applied to all 17 points in order to determine the strength of each of these effects. As a result, the questionnaire containing 30 questions (not including questions in the score sheet) examines 46 issues in the form of closed and semi-open questions, and the collected data are qualitative.

During the survey, 111 questionnaires were obtained and 103 of them were accepted for the analysis (a few formularies were rejected due to incompleteness). The existence of a statistical relationship between the use of control mechanisms in the supply chain and the occurrence of the partnership type relationship between the surveyed entities was made using the Chi-square test. The strength of this relationship was determined by the C-Pearson coefficient.

Main results

The analysis of the received data allows to conclude that among those enterprises that use control in relationship management (*Figure 1*), the largest percentage controls the effects of cooperation with partners. On the other hand, the smallest share of indications was recorded for the area of "control of the position and significance of the partner", which is understandable in the case of enterprises that already have some developed relations with the main partners and know their situation.

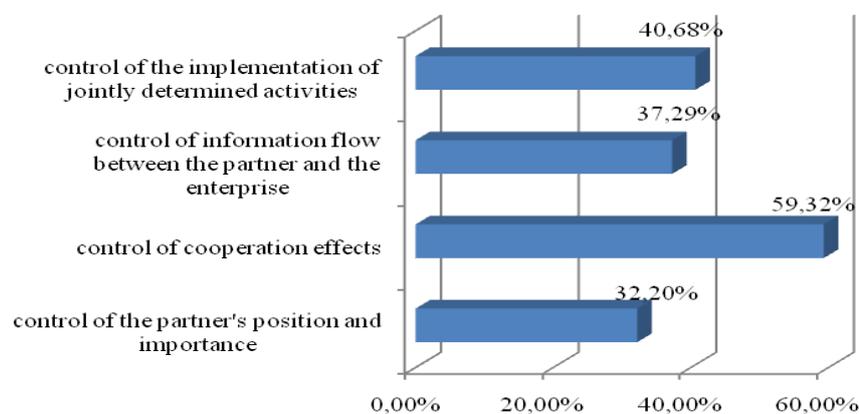


Figure 1. Areas of control in the supply chains of the surveyed enterprises

Source: own study

The possibility of selecting multiple responses in the question about the control area in relation management resulted in the creation of 12 categories of answers whose frequency of indications is presented in Table 1.

Table 1. Areas of control - categories of responses and their frequency

Category number	Description of the category	Frequency of choice
1	control of the partner's position and importance	3,39%
2	control of the partner's position and importance, control of information flow between the partner and the enterprise, control of cooperation effects	5,08%
3	control of the partner's position and importance, control of information flow between the partner and the enterprise, control of cooperation effects, control of the implementation of jointly determined activities	5,08%
4	control of the partner's position and importance, control of cooperation effects, control of the implementation of jointly determined activities	1,69%
5	control of the partner's position and importance, control of cooperation effects	10,17%
6	control of the partner's position and importance, control of the implementation of jointly determined activities	6,78%
7	control of information flow between the partner and the enterprise	15,25%
8	control of information flow between the partner and the enterprise, control of cooperation effects, control of the implementation of jointly determined activities	1,69%
9	control of information flow between the partner and the enterprise, control of cooperation effects	10,17%
10	control of cooperation effects	15,25%
11	control of cooperation effects, control of the implementation of jointly determined activities	10,17%
12	control of the implementation of jointly determined activities	15,25%

Source: own study

The next stage of the analysis was to check whether there is a relationship between the use of control elements in the supply chain and the type of relations occurring between the partners. The relationship type was determined earlier based on the answers to the questions contained in the survey. At the same time, the division into partner and traditional relationships was used to verify the existence of the above dependence. For this purpose, the χ^2 independence test was used. The first step was to determine the statistical characteristics. Therefore, it was assumed that the "relationship type" feature is a dependent variable, while "controlling" is an independent variable.

For the purpose of the test, the following null hypothesis was formulated: H_0 : "relationship type" and "control" are independent, placed on the alternative hypothesis:

H_1 : "relationship type" and "control" depend on.

The results of the χ^2 test independence are presented in Table 2.

Table 2. The results of χ^2 test for variables: "relationship type" and "control"

Tested characteristics (variables)	The empirical value of statistics	Number of degrees of freedom	The significance level	Critical value of statistics	Test probability (p level) for the test	C-Pearson factor
dependent variable: type of relation	11,075	1	0,05	3,8415	0,00088	0,32
independent variable: control						

Source: own study

At the level of significance $\alpha=0,05$ and for $k = 1$ degrees of freedom, the statistic value is 11,075, which means that it exceeds the critical value of the statistics, which is equal in this case 3,8415. Because $\chi^2 = 11,075 > 3,8415 = \chi^2_{\alpha}$, we reject the null hypothesis, which assumes the independence of the "relationship type" and "control" traits - in the light of statistics, the dependence is significant. However, the strength of the demonstrated dependence between the type of relationship and the occurrence of control, measured by the contingency coefficient, is 0.32, which makes possible to classify it into a medium-intensity range. Therefore, it should be stated that the existence of control elements between participants in supply chains affects, to a medium degree, the type of relations between partners.

Discussion and Conclusion

The problem of controlling as an element of supply chain management is often taken up in the scientific literature (Dooley 2005; Trzuskawska-Grzezińska 2017; Jatta 2009 et al.). There are indicated and examined: control areas in the supply chains (Swaminathan et al. 2007; Beamon, Ware 1998; Houlihan 1985 et al.), methods and tools are developed to measure the efficiency of supply chains (Chan, Qi 2003; Lambert et al. 1998) or choice of partners and evaluate their activities (Chen, Lin 2006; Lambert et al. 2011 etc.). This paper attempts to cover the subject of applying control elements in supply chain management in the context of the impact of these activities on the mutual relations of partners. It was shown that there is a statistically significant relationship between the type of relations between partners in the supply chains and the use of controls in this area. What's more, the dependence of this relationship was determined as moderate, using the C-Pearson contingency ratio for this purpose. On this basis it can be said that using control between partners in supply chain helps developing their relations. Therefore, it should be recognized that the goal set in the article has been achieved.

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APPLICATIONS OF LEAN MANAGEMENT METHODS IN NON-PROFIT ORGANIZATIONS

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Abstract: Since the early 1990s, non-profit organizations have emerged and have been growing in many sectors. As a result a variety of civil societies has been formed. This process has continued ever since: non-profit organizations are essential elements of current societies. These organizations are characterized by greater vulnerability to the prevailing environmental factors. More and more of these organizations use typical profit-oriented enterprise management methods to succeed. After defining the terms that are connected to the topic (non-profit sector, lean management), I will analyse to what extent the elements and techniques of lean can be used in the case of non-profit organizations. The information used in this study involves an analysis of subject-related literature, my own observations and experiences and focus group interviews with directors of ten different organizations.

Keywords: lean, management, non-profit, value

Introduction

In a society there are many areas where for-profit organizations can satisfy certain social needs effectively only in a limited way. In these cases, civil initiatives can be the solution, whose establishments and functioning are helped by the fact that they perform tasks that for-profit organizations often cannot undertake because of the maintenance of their cost-effective operation.

The activity of non-profit organizations is quite comprehensive: although it can be classified into different categories, it cannot cover the whole activity area. Based on statistics, most of the non-profit organizations function in the field of sport, culture, education, leisure activity, healthcare, environmental protection and community development. According to the researches of Salamon-Anheier (1999), in Hungary, by international comparisons, the most dominant area regarding the engagements of non-profit organizations is culture/ recreation. An important role of non-profit organizations is that they can act as certain indicators by being flexible and adapting quickly. This way they indicate if something is not well regulated or if interest grievance occurs. They contribute to the identification and satisfaction of relevant social needs, strengthen pluralism and contribute to the social control of the government and market. (Kuti et al., 1998) In a given society, the numbers and significance of non-profit organizations clearly indicate the activity and the sense of responsibility of the citizens, in wider sense the degree of democracy. The suppression and decreased significance of these organizations lead to political oppression and passive, resigned society preventing social and economic development. The non-profit organizations encourage people from different areas of the society to act instead of depending on the government. (Siegel - Yancey, 1993) If these organizations operate successfully in a given community, they can serve as models or incentives for those also who are not part of them. Civil society can change the balance of power for the benefit of the society. (White, 1994) Besides being beneficial for the society, the non-profit sector also represents significant economic power in respect of employment and national income, so they have a serious effect on the economic development of certain areas.

Because of the great numbers and significance of non-profit organizations, there is a growing demand to process the characteristics of their management beside economic organisations. Regardless of the organisational framework, if more people work on a certain task, the problem of effective management of limited resources evidently arises and this makes the application of management processes necessary. It definitely helps to achieve goals if directors possess management knowledge. Large part of the non-profit organisations is established as self-organisations; the organizational structure is informal and their competence and responsibilities are not clarified, so the supervision of management is more difficult. It causes further difficulties if the members and managers do not work there full time and perform their duties for free, so these duties cannot always be dealt with and the operation of the whole organization could fluctuate. In the case of non-profit organizations, it is not necessarily worth using those management and organizational theories that works for for-profit organizations, but the knowledge of these theories and their conscious adaptation is essential. The

legislation, tender and credit system of the registered organizations makes it necessary to apply management techniques. In this study I will analyse the special features of the lean-management technique in the case of non-profit organizations, which is widely used by for-profit organizations. This approach becomes particularly emphasized if the resources of the organizations decrease, but the organizations would like to keep and improve their activity standards and value creation. New tools, methods, and technology can affect productivity, but also very important is the innovative and creative knowledge of the individual worker who looks at the task at hand from a process improvement or value-added standpoint. (Drucker, 1999)

The main objective of the article is to define the terms that are connected to the topic (non-profit sector, lean management), I will analyse to what extent can the elements and techniques of lean be used in case of non-profit organizations. The information used in this study involves the literature, my own observations and experiences and focus group interviews with directors of ten different organizations. These organizations operate in the following sectors: culture/recreation (3), sport (2), education (2), charity (2), health (1). The fundamental aim of the focus group interview (see Vaughn et al., 1996) is to get to know the opinion, thoughts, feelings, observations and views of the participants in respect of lean management. The interview took place in the building of Szent István University, Gödöllő, it lasted for 2 hours. The questions were about the organizations, the management methods they use, the lean methods in generally and the opportunities of lean method's use in practice.

Research background: Defining non-profit organizations

The diverse forms and activities of non-profit organizations make it difficult to give a precise definition of them. A village card club or a garden club can be part of them just like a foundation which operates in several countries. What is certain that these organizations operate beside the public (local government) and business sector and therefore they are often called as the third sector. Although they are connected to the public and business sector in different ways, their motivation of establishment and operation differs significantly. The term NGO (non-governmental organization) has spread internationally. This term does not exclude the enterprises of the business sector theoretically, but obviously they are not part of the NGO-s.

From a management point of view, I consider the term of non-profit organization the most expressive, since it refers to a management feature which defines the operation of these organizations to a great extent. There is some kind of community interest behind the establishment and operation of these organizations. This community interest is emphasized by the term of non-profit organization, society organization or voluntary organization.

These terms imply the most important features of those organizations that belong to this group: non-governmental nature, institutionalization, volunteering, public interest and political and religious independence. (Kuti, 1998) Salamon-Anheier (1999) includes local-governance too, which means that these organizations have their own management elected by the members. Nonprofit organizations do not profit from income, as all revenue must benefit the mission of the organization, in contrast with forprofits whose mission is to increase shareholders' profit. (Tolbert, Moore, & Wood, 2010) Nonprofits can earn revenue from the selling of a product or service, government contracts or individual, government, or foundation grants. (Fisher et al., 2011) Nonprofits can benefit from innovation, but leaders must consider change an opportunity to improve operational processes or services. (Drucker, 1999)

The application of Lean management - Discussion

The essence of "Lean" summarised in a sentence, is to use less resource in value production, or produce greater value with the same resources. In optimal cases, these two orientation can happen in the same time, meaning, producing greater added value with less resources. Every intention to improve efficiency is serving to achieve the goals above. Lean management is trying to offer a complex, systematic solution for this. For non-profit organizations, as they often face the problem of resource reduction, is more important to find the possibilities to increase efficiency. In the context of Lean Management, "Lean" essentially means flexible, agile or light. Due to the fact that Lean was born in the ambit of production, also the majority of its tools come from this area. Through adaptation

over time, today they are applicable also in other fields and are no longer subjected to single industries. Nonetheless, not every method would be equally suitable for every section and process. Therefore, an adequate evaluation procedure has to occur to get a ranking with the most suitable Lean methods for the non- organizations.

The five main methods to increase efficiency according to lean:

1. Specify value: Specify value from the stakeholders point of view;
2. Identify and map the Value Stream: Identify all the steps in the value stream for each product family eliminating whenever possible those steps that do not create value;
3. Create flow: Make the value-creating steps occur in tight sequence so that products will flow smoothly toward the customer;
4. Respond to customer pull: As flow is introduced, let customers pull value from the next upstream activity;
5. Pursue Perfection: As value is specified, value streams are identified, wasted steps are removed, and flow and pull are introduced, begin the process again and continue it until a state of perfection is reached in which perfect value is created with no waste. (Womack - Jones, 2003)

The basic goal of these, is to minimize the losses, wastes and the vacancy of capacities. The aim of an organisation using lean management, is to define the value based on the users' viewpoint, and to identify every corporate process which are required to its creation. To terminate every process, which are not taking part in value creation directly or indirectly. An important task is to carry out a continuous analysis that allows for adaptation to the changing environment, widest possible utilization and increased value enhancement. (Womack – Jones, 2009)

The application of the Lean Management principles is a strategic decision, which can be helped by many tools in the various functional areas of the organization. Lean management methods are widely used in manufacturing sector, logistics areas and production (Nowakowska-Gunt, 2008; Dunay – Shaban, 2017; Alaskarova et al., 2018), but the implementation process of lean methods need time, and improved attitudes of the managers and employees. Such methods include cross-functional workflow, JIT, serial size reduction, value stream mapping, kanban, standardization, TQM, kaizen, smoothing, full productive maintenance, single flow, SMED, Kaikaku, Jidoka, 5S, visual control, Andon systems, machinery, employee involvement, cell manufacturing, six sigma, takt time etc. (Vajna – Tangl, 2017) The introduction of these methods at system level can result in efficiency gains. It can not be about introducing all of these methods at the same time, but their purposeful selection and adaptation can greatly increase the effectiveness of non-profit organizations.

Principles of Lean Management and Useful Management Tools for non-profit Organizations:

Value: In the civil sector, it is not the customer in the classical sense in the center, but those who use of the services and products of the organizations. They are users who may be members or external interest groups depending on the type of organization.

One of the first steps in the lean approach is that, in continuous and detailed communication with users, it is necessary to define the value the creation of which is the basic or ancillary goal of the organization. In implementing the lean approach, it has a great importance to learn the needs of the so-called "internal buyers".

In non-profit organizations, besides employees, many people work voluntarily, in social work, their activities are often occurant. The needs specified during the communication must be translated precisely into a specific product or service. Unfortunately, many organizations currently work in a way that they are not well aware of what the greatest value is for users or employees. Because of the wide variety of needs, it is best to classify users and staff into groups, and thus define the relevant requirements, their nature and possible ways of satisfying them with specific features. With this knowledge you can identify the most important value-creating steps (value streams) within the organization and avoid unnecessary, wasteful activities. This can result in significant cost savings and explore ways to increase the value added without additional costs.

Value stream – In addition to the primary and supporting activities set up in Porter's value chain (Porter, 1985), the lean approach places particular emphasis on exploring the forms and causes of wasting and then eliminating them. For non-profit organizations, their definition is more complicated than for for-profit businesses, as it is not possible to evaluate the value chain's activities whether they pay for it or not. In many cases, they do not pay for it at all, yet it is a very important value creation activity for users. The seven loss sources formulated by Taiichi Ohno (1988) also arise in the case of

non-profit organizations, the expectation is of paramount importance (Waste of waiting time) as well as unnecessary activities (Waste of over-processing), which often occurs in parallel workflows. In addition to classical loss sources, significant efficiency gains could be achieved by exploiting human creativity and using appropriate tools and systems. The unique formulation of the source of the loss to the given organization helps solve the problems that the lean system offers many tools. Such as value stream mapping (VSM), for which value activity is displayed visually, to the extent that the processes can be measured on their own, determine their role, classify them based on value creation, and assess their resource needs, in particular, labor and time requirements. An important element of the method is exploring development opportunities for each activity.

The use of the 5S model also contributes to reducing losses and increasing efficiency: 1. Sorting. Get rid of any unneeded tools, materials, and other items to keep the workplace tidy. Store or discard anything that does not need to be in a worker's space. 2. Straightening. Arrange workers' materials so those they use the most are the closest at hand and quickest for them to find. 3. Systematic cleaning. Keep the workspace and all equipment clean. 4. Standardizing. Make sure all employees doing the same job have exactly the same tools, instructions, and materials. Systemize as many processes as possible. (For example, post instructions on how to use, clean, and fix the copying machine so everyone will perform these routine tasks in the same way.) 5. Sustaining the practice. Monitor these practices to assure that people do not fall back into their old ways. (www.snpo.org)

Flow – For non-profit organizations, it is particularly difficult to ensure uninterrupted continuity of value-creating activities. The workings of employees, volunteers, members and the eventuality of resource availability increase the expectation losses. It is worth thinking about the entire value chain and starting to produce a product or service only if the process is transparent until completion and all obstructive factors can be avoided. Obstacles usually stem from lack of resources (primarily human and capital), unpredictability. To calculate the best use of the capacities, you can use the calculation of the tactile time, the introduction of one-piece flow.

Pull system – It is a viewpoint even in the civil sector, that the production of products and the provision of services can only be started on user demand. When a demand arises, a value creation process may start, which may take more time without stocks. However, in many cases, NGOs carry out activities that are not by profit-driven companies, no competition will entice the user. It is more important to respond more accurately, than as soon as possible to both the user and the organization, efforts can be made to validate the JIT principle. For frequent repetitive activities, substantial support can be given using the Kanban method, in which quick and flexible information flows can be created within the value chain processes.

Continuous development – The above principles can not be realized perfectly, but you have to strive for it. Keep in mind the continuous development will help moving towards this direction. For non-profit organizations, the informal relationship is more typical, so the kaizen approach is even more applicable. Each problem is also an opportunity for development, where not determining the responsible is the primary goal, but solving the established situation, learning from the events, progressing with little development steps. The organization requires commitment and participation from all of its members. For this, stakeholders need to be involved in design and maintenance of the system. The best known forms of participation and involvement are: a proposal system (e.g. brainstorming, idea box), group work, joint Kaizen actions. The primary direction of skill development is to develop problem-solving skills for all contributors. Workers in different functional or divisional areas are sometimes given a task in a team so as to promote knowledge transfer (exchange of ideas) and easier and faster solutions to the problems that arise. This also promotes the use of six sigma, which requires the establishment of specific (individual and organizational) goals, defining responsibilities, managing conflicts, organizing effective meetings, facilitating continuous learning. These skills and abilities not only increase the efficiency of teamwork but also affect the individual effectiveness of work, so the organization can benefit from other areas as well (George, 2002). Illés et al. (2017) highlighted that lean concepts as a part of quality management tools, thus lean thinking and quality assurance should be applied by all members of the organization.

Conclusion

Lean approach from Toyota's production system is not only applicable to for-profit companies. Full or partial introduction and appropriate adaptation to the civil sphere can also lead to significant progress. In non-profit organizations, employees, members, volunteers do not primarily do their job for gaining income, but rather from personal conviction for some community, social purpose. That is why the key to lean management in this sector is respect for people. Watch and rely on people's opinions and ideas, the core of which is to build and use the right communication channels.

The basic goal of the Lean Management development is to use the work as efficiently as possible and to increase the amount and level of value creation. It is a key point that the use of lean methods does not allow the leading of the organization to laid back, making the necessary changes timely, so it does not change the organization because it is forced, but because it is possible. By doing so, the leaders of the organization clearly see their mission, their tasks for members, supporters, and audiences, and they can efficiently use their resources.

The two most important conditions for applying lean approach are organizational culture and leadership commitment for non-profit organizations. From the management section, the most important tasks can be summarized as follows: A, Create and foster a culture of respect for others in which everyone adds value. B, Use every opportunity for a coaching moment. C, Embrace the difficulty of change in yourself and others. D, Meet people at their level of engagement. E, Coach, direct, and mentor them when needed. F, Teach others how to fish. Do not solve every problem. G, Be the change.

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THE EXTERNAL AUDIT PROCEDURES IN REDUCING TAX EVASION EMPIRICAL STUDY: IRAQ

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Abstract: An external audit is a task that contributes to increasing confidence in the company's reports as without the external auditor's report, the external beneficiaries would not be able to make the appropriate decisions, as governance represents one of the external data users of the company. It will rely on the company's audited data in advance and the main results show that there was impact (or relation with) by the external audit procedures on the reduction of tax evasion, in which this result is linked to the current financial corruption in Iraq and the inability of the external auditor (and his procedures) to reduce financial corruption (as well as tax evasion).

This paper studies the contribution of the external auditor's actions and how it reduces tax evasion, while additionally if there is a variation in the contribution of the external auditor's procedures that contribute to reducing tax evasion in terms of gender, age, qualifications and experience, finally; the study's aim is to reveal the possibility of the external auditor's procedures contribution to reducing tax evasion.

The main results indicate that 91% of males agreed with the "Entrance Conference", while 74% of females disagreed with the "Exit Conference", and 100% of PHd and MSc employees agreed with the "Data Request" while 82% of PHd employees and 89% of MSc employees disagreed with the "Exit Conference".

Keywords: management of external audit, tax evasion

Introduction

Taxation is one of the most important tools used to guide the economy in general towards social justice, economic life, public services, and life-related interests. Since its establishment, the countries have endeavored to achieve security and stability for their peoples, implement economic and developmental projects and ensure the welfare of the society. To achieve this, the state needs many resources to finance its budget for economic and social development. Since the tax is a deduction from the income of individuals, these individuals may resort in various ways to reduce the amount of tax and for many reasons, this is called tax evasion.

Where the phenomenon of tax evasion is one of the most prominent modern economic crimes and the seriousness of this phenomenon is evidenced by the failure to achieve tax for its economic and social objectives. From a financial point of view, taxes are a major source of funding for the state budget. Failure to pay them will result in a deficit in the budget, leading to the inability of the state to fulfill its obligations towards its citizens. In economic terms, the tax is an important tool to guide the economy by encouraging and supporting certain sectors, A socially important role by eliminating class inequality or fighting undesirable social phenomena such as smoking.

Literature Review

Al-Akechah, 1993, "The Difference of the Announced and Revised Tax and the Audit of the Accounts of Commercial Establishments in Jordan": The study aimed to show the violations committed by the establishments classified as irregularities related to the trading account and violations related to the profit and loss account. As well as the absence of legal materials related to irregularities and lack of tax awareness.

Mittone and Bosco 1997, "Ethical Determinants and Tax Evasion": The researchers focused on the role of ethical determinants as well as monetary factors in determining the decision to evade income tax. The study concluded that the adoption of the decision to evade income tax is similar to the decision to invest and manage the financial portfolio, and that this decision is affected by the degree of desire to risk the person, as well as the effectiveness of the moral strengths of the person concerned.

El-Tarman, 2004, "Factors Affecting Income Tax Evasion in the Hotel Sector in Jordan": The study aimed to identify the relative importance of the factors affecting income tax evasion in the hotel sector in Jordan. The study concluded that there are four main factors Tax evasion is represented by political

factors, economic factors, social factors and legal factors. The researcher was able to draw his conclusions by distributing a questionnaire to tax assessors and hotel accountants to identify their views on the impact of the four main factors that affect tax evasion.

Fouad, 2010, "The Impact of Accounting Information Systems on Prevention of Tax Evasion in Egypt": The study of the effect of accounting information systems in the prevention of tax evasion in Egypt, the study aimed to clarify the impact of accounting information systems in the prevention of tax evasion in Egypt, the study pointed out that the increasing use of electronic systems, which became a reality in Egyptian society, The study pointed out that the use of electronic accounting information systems side effects on the monetary authorities, as their operations will affect the calculations of national output will not show this Electronic operations in those accounts and therefore will not be taxed. The researcher concluded that although the concept of auditing is not changed in the accounting information systems environment, there is confusion among different types of accounting information systems.

Al-Da'as, 2011, "The Difference between Declared Income and Approved Income, Reasons and Ways of Processing it from Taxpayers' Perspective, An Empirical Study on Jordanian Joint Stock Companies": The study aims to investigate the causes of violations committed by the administrations of the Jordanian joint stock companies, which lead to a discrepancy between the Jordanian and the Jordanian companies. The income declared by it, and the income estimated by the tax authorities, and then try to propose some successful solutions to reduce those irregularities, and from the point of view of taxpayers. A total of 36 questionnaires were prepared and collected in the Income Tax Department.

Alobeini, 2012, "The Impact of Tax Governance Mechanisms on Tax Revenues": The study aims at explaining the effect of the mechanisms of tax governance on tax revenues through a questionnaire of 119 tax auditors and 205 external auditors. The study concluded that there is an impact of the mechanisms of tax governance on tax revenues. Tax revenues at all stages through taxation, collection and prevention of evasion. Tax control positively affects one of the mechanisms of tax governance through the activation of control procedures and increased control. The tax liability is positively impacted by directing and directing taxpayers to pay their financial obligations to the tax authorities. The impact of tax risks on tax revenues has been inversely related. Finally, tax incentives positively affect tax revenues by encouraging small taxpayers through incentive credits.

Methodology

The questionnaire was based on the descriptive approach through literature and scientific publications related to the subject, as well as relying on the analytical method through the design of a questionnaire form, which was distributed (250) form on the sample of the community of auditors in Iraq, and the forms retrieved and valid for analysis (227) (90.8%). The results were statistically analyzed using the SPSS program.

Problem of Study: The study focused on the following main problem: Does the external auditor's actions contribute to reducing tax evasion? The following sub-problems have emerged: Is there a variation in the research sample on the contribution of the external auditor's procedures that contribute to reducing tax evasion in terms of gender, age, qualifications and experience?

Hypothesis of Study: Through the previous major research problem, the main research hypothesis emphasized that the external auditor's procedures contribute to reducing tax evasion. Through this main hypothesis we have the following sub- hypothesis: There is a variation in the research sample on the contribution of the external auditor's procedures that contribute to reducing tax evasion in terms of gender, age, qualifications and experience.

Objective of Study: The main objective of the research is to reveal the possibility of the external auditor's procedures contribution to reduce tax evasion.

Results

For statistical analysis of the paragraphs of the questionnaire was used ready-made statistical package (SPSS20), a special social science package, and statistical analysis will take the logical path follows:

Internal honesty test: The researcher calculated the validity of the internal consistency of the questionnaire using the Pearson correlation coefficient to measure the relationship between the score of the paragraphs and the total score of the axis to which it belongs. It was found that all the paragraphs were statistically significant at a significant level of 0.05 with the total score of the respective axis except for paragraph X2. This indicates the consistency or internal honesty of the axes paragraphs as shown in the following table:

Table (1) Pearson correlation between the paragraphs of the main axis with the total degree of axis transactions

Paragraphs of the External Auditor's Procedures		Pearson correlation coefficients
Planning	X1	0.412
	X2	0.452
	X3	0.386
	X4	0.404
Fieldwork	Z1	0.418
	Z2	0.401
Reporting	Y1	0.384
	Y2	0.477
	Y3	0.418
	Y4	0.428

Source: Own work

Test the validity of the questionnaire: The consistency is to ensure that the same results are obtained if the questionnaire is re-applied more than once to the same group of the research sample under similar circumstances. This means the consistency of the respondent's response if the same questionnaire is applied several times in similar circumstances. The researcher tested the validity of the questionnaire according to the coefficient of Alpha Kronbach at the level of the total sample of the study, which amounted to 227 form by 10 paragraphs for each form, and then on the level of paragraphs of the main axis, it was found that the value of alpha Cronbach medium and positive, indicating the stability of the scale, The following table:

Table (2) Values of the Alpha Cronbach coefficient

Details	Number of items	Alpha Kronbach	The largest value for alpha cronbach when the item is deleted	The moving element when you delete it	Alpha function of Kronbach
Total Sample	10	0.71	0.71	Non	Stability of the scale
Planning	4	0.69	0.69	Non	Stability of the scale
Fieldwork	2	0.74	0.74	Non	Stability of the scale
Reporting	4	0.72	0.72	Non	Stability of the scale

Source: Own work

Analysis of personal information: Exhibit (1) indicates that the percentage of females 18.5% and males 81.5%, in terms of age was the highest age (30-40) by 42.7%, In terms of qualifications, the highest percentage of the bachelor's degree was 59%, and finally the ratios were not significant in terms of experience.

#	Male		Female		Total	
	f	%	f	%	f	%
G	185	81.5%	42	18.5%	227	100.0%

#	Less than 30		30 - 40		41 - 50		More than 50		Total	
	f	%	f	%	f	%	f	%	f	%
A	84	37.0%	97	42.7%	34	15.0%	12	5.3%	227	100.0%

#	Bsc		Msc		Phd		Total	
	f	%	f	%	f	%	f	%
Q	134	59.0%	65	28.6%	28	12.3%	227	100.0%

#	Less than 10		10 - 20		More than 20		Total	
	f	%	f	%	f	%	f	%
Ex	74	32.6%	81	35.7%	72	31.7%	227	100.0%

Source: Own work

Analysis of questionnaire trends: Table (3) indicates that 70% of the research sample agreed on X1 and 98.7% for X2, X3 was supported by 57% and 33%, 81.9% support for X4 and 92.5% for Y1, 42% for Y2, while Z1 supported 65.5%, 81.9% for Z2, and finally 64.8% support Z3 and 92.5% for Z4. From the above, the indicators of high importance are 98.7% support for paragraph X2, which indicates high support for the research sample of the importance of authorization in the procedures of the external auditor to reduce tax evasion, this explains the importance of authorization and as you choose the right people to give them authorization. In addition, 33% of paragraph X3 is not supported. The research sample considers the importance of the audit conference as one of the external auditor's procedures for reducing tax evasion. This may contradict the strong support for paragraph X2.

Table (3) Analysis of questionnaire trends

#	Agree		Disagree	
	f	%	f	%
X1	159	70.0%	45	19.8%
X2	224	98.7%	1	0.4%
X3	130	57.3%	75	33.0%
X4	186	81.9%	24	10.6%
Y1	210	92.5%	13	5.7%
Y2	113	49.8%	96	42.3%
Z1	148	65.2%	67	29.5%
Z2	186	81.9%	32	14.1%
Z3	147	64.8%	61	26.9%
Z4	210	92.5%	9	4.0%

Source: Own work

Analysis of the relationship between the questionnaire paragraphs and personal information: In table (4) there is a variation in the sample of the research on the contribution of the external auditor's procedures in reducing tax evasion in terms of gender, where there was a strong contrast to the lack of support indicates 87% of the females for X1, 91% of the males support X3, 83% of the males support X4, and 55% of the females do not support the same question. 74% of the females did not support Y2, and 100% agreed with Z2, and male support Z3 with 77%.

Table (4) Relationship between the questionnaire paragraphs and gender

#	Details	Agreed	Disagree
X1	Notification	<i>no significant</i>	87% F
X2	Authorization	<i>no significant</i>	<i>no significant</i>
X3	Entrance Conference	91% M	<i>no significant</i>
X4	Data Request	83% M	55% F
Y1	Audit Fieldwork	<i>no significant</i>	<i>no significant</i>
Y2	Exit Conference	<i>no significant</i>	74% F
Z1	Draft Report	<i>no significant</i>	<i>no significant</i>
Z2	Response	100% F	<i>no significant</i>
Z3	Final Report	77% M	<i>no significant</i>
Z4	Follow-Up & Monitoring	<i>no significant</i>	<i>no significant</i>

Source: Own work

In table (5) the study did not indicate a variation in the sample of the research on the contribution of the external auditor's procedures in reducing tax evasion in terms of age.

Table (5) Relationship between the questionnaire paragraphs and age

#	Details	Agreed	Disagree
X1	Notification	<i>no significant</i>	<i>no significant</i>
X2	Authorization	<i>no significant</i>	<i>no significant</i>
X3	Entrance Conference	<i>no significant</i>	<i>no significant</i>
X4	Data Request	<i>no significant</i>	<i>no significant</i>
Y1	Audit Fieldwork	<i>no significant</i>	<i>no significant</i>
Y2	Exit Conference	<i>no significant</i>	<i>no significant</i>
Z1	Draft Report	<i>no significant</i>	<i>no significant</i>
Z2	Response	<i>no significant</i>	<i>no significant</i>
Z3	Final Report	<i>no significant</i>	<i>no significant</i>
Z4	Follow-Up & Monitoring	<i>no significant</i>	<i>no significant</i>

Source: Own work

From table (6) there is a variation in the research sample on the contribution of the External Auditor's procedures in reducing tax evasion in terms of academic achievement. 74% of the PhD did not agree with X1, while PhD and Msc was 100% agree with X4, PhD and Msc were not agree by 82% and 89% respectively for Y2, and finally PhD and Msc were agree by 74% and 82% respectively for Z3.

Table (6) Relationship between the questionnaire paragraphs and qualification

#	Details	Agreed	Disagree
X1	Notification	<i>no significant</i>	74% Phd
X2	Authorization	<i>no significant</i>	<i>no significant</i>
X3	Entrance Conference	<i>no significant</i>	<i>no significant</i>
X4	Data Request	100% Phd 100% Msc	<i>no significant</i>
Y1	Audit Fieldwork	<i>no significant</i>	<i>no significant</i>
Y2	Exit Conference	<i>no significant</i>	82% Phd 89% Msc
Z1	Draft Report	<i>no significant</i>	<i>no significant</i>
Z2	Response	<i>no significant</i>	<i>no significant</i>
Z3	Final Report	74% Phd 82% Msc	<i>no significant</i>
Z4	Follow-Up & Monitoring	<i>no significant</i>	<i>no significant</i>

Source: Own work

In table (7), there is a variation in the research sample on the contribution of the External Auditor's procedures in reducing tax evasion. In terms of experience, those with experience (10-20) and (more than 20) supported X2 by 95% and 93% respectively, while 92% of (less than 10) experience did not support X4, and Y2 with (91%), while (more than 20) support the Z1 with 90%. Finally, (10-20) experience support Z3 with 89%.

Table (7) Relationship between the questionnaire paragraphs and experience

#	Details	Agreed	Disagree
X1	Notification	<i>no significant</i>	<i>no significant</i>
X2	Authorization	95% 10-20 93% M 20	<i>no significant</i>
X3	Entrance Conference	<i>no significant</i>	<i>no significant</i>
X4	Data Request	<i>no significant</i>	92% L 10
Y1	Audit Fieldwork	<i>no significant</i>	<i>no significant</i>
Y2	Exit Conference	<i>no significant</i>	91% L 10
Z1	Draft Report	90% M 20	<i>no significant</i>
Z2	Response	<i>no significant</i>	<i>no significant</i>
Z3	Final Report	89% 10-20	<i>no significant</i>
Z4	Follow-Up & Monitoring	<i>no significant</i>	<i>no significant</i>

Source: Own work

Conclusion

The results of the research indicated a significant difference in the contribution of the external auditor's procedures in reducing tax evasion in terms of gender, experience and qualification, while there was no difference in terms of age. In addition to a weak impact (or relationship) of external audit procedures to reduce tax evasion. This result is linked to the external auditor's inability (and his procedures) to reduce financial corruption (as well as to reduce tax evasion). In terms of frequency ratios, the indicators of high importance were 98.7% support for paragraph X2, which indicates high support for the research sample of the importance of authorization in the procedures of the external auditor to reduce tax evasion. In addition to unsupported for 33% of paragraph X3, where the research sample considers the importance of a simple audit conference as a means of the external auditor's procedures to reduce tax evasion, and this may contradict the strong support for paragraph X2. But 83% of males support the X4 and 55% do not support females for the same question, the study also did not indicate a difference in the research sample on the contribution of the external auditor's procedures in reducing tax evasion in terms of age, while Phd and Msc agree 100% on the X4. Finally, (10-20) and (more than 20) experience support X2 by 95% and 93%, respectively.

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THE TRANSITION OF THE VIETNAMESE HIGHER EDUCATION SYSTEM ADAPTING TO THE 4.0 INDUSTRIAL REVOLUTION

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Abstract: This paper aims to examine the challenges of Vietnamese higher education systems in light of 4.0 industrial revolution, and on that basis determine the appropriate transition of this system to adapt to the increasing higher requirements of the labour market. This paper argues that the Vietnamese higher education sector needs to adopt a suitable form regarding teaching, and applying some new thinking of educational service to adapt efficiently to the 4.0 industrial revolution.

Keywords: higher education, 4.0 industrial revolution, Vietnam

Introduction

Industrial Revolution 4.0 has dawned with a new challenge wherein information technology, internet, and cyber-physical systems are going to take a priority with global human life. Indeed it will be a revolution that may change the way human beings think, live and work with access to any corner virtually, whereas industry and business will leap higher with a stronger impact on economic developments. Universities need to prepare both academicians and students to upgrade to the present scenario regarding knowledge and skills to adapt to the changing trend based on the cyber-physical system as part of everyone's life. Developments and revolutions are part of existence, but there is also an urgent call to the world population, wherein human values, ethics, and responsibilities of sustaining a good society and planet are everyone's responsibility.

The development of this the fourth industrial revolution has brought a great opportunity for countries to accelerate industrialization and modernization, including Vietnam. The problem is that Vietnam is addressing low-level labor-productivity challenges to be ready for a new phase by industrial revolution 4.0 (Huynh Van Thai, 2017). Based on the perceptions of the challenges that the Industrial Revolution 4.0 brings, Vietnam's higher education system needs to take appropriate adaptation steps to address these challenges as well as create employees with the necessary skills to meet the job requirements of the employer.

The purpose of this paper is to examine the challenges of Vietnamese higher education systems in light of 4.0 industrial revolution, and based on that determine the appropriate transition of this system to adapt to the increasing higher requirements of the labor market. This paper argues that the Vietnamese higher education sector needs to adopt the suitable change regarding teaching, and applying some new thinking of education service to adapt efficiently to the 4.0 industrial revolution.

Methodology

This research based on reviewing the literature that is related to 4.0 industrial revolution and the higher education system in Viet Nam to highlight the nature of the industrial revolution 4.0 and their impact on every aspect of the society, especially on the higher education system, the labor market. Based on analyzing the problems of the current higher education system in Viet Nam, the author will represent some solutions as the policy implications for transiting this system adapting to the 4.0 industrial revolution.

Background

The fundamental characteristics of the Industrial Revolution 4.0 and its impact on the labor market.

a. The vertical networking of smart production systems

The first principal characteristic of industry 4.0 is the vertical networking of smart production systems in the factories of the future (Kagermann et al., 2013) (see figure 2). A factory owns several physical and informational subsystems, such as actuators and sensors, control and production management,

manufacturing, and corporate planning (Wang et al., 2016). Vertical integration refers to the combination of the various IT systems at the different hierarchical levels to deliver an end-to-end solution (Kagermann et al., 2013). It uses the cyber-physical systems (CPS) to enable plants to react rapidly to changes in demand or stock levels and faults. In turn, the factory has to be designed to allow adoption of CPS. Hence, concrete structures and specification of production processes in the factory are replaced by configuration rules, from which case-specific topologies can be derived automatically (Brettel et al., 2014). As a consequence, with the application of the vertical integration, the concept “smart factory” emerges. A smart factory provides crucial real-time quality, a time resource, and cost advantages in comparison with classic production systems (MacDougall, 2014). These advantages are achieved through the flexible network of CPS-based production system which, in no small extent, automatically oversee production processes (MacDougall, 2014). In a smart factory, all processing stages are logged, with discrepancies registered automatically (Schlöpfer et al., 2015). Additionally, CPS as the central hub for data and fleet management provides peer-to-peer health evaluation and components fusion based prediction methods where all of these applications are supposed to increase asset uptime and relatively increase productivity and service quality (Lee and Bagheri, 2015). (Schlöpfer et al., 2015) explained that the internet of things allows even more predictive maintenance with the condition monitoring, which offers real added value for customers.

b. Horizontal integration via a new generation of global value chain networks

In the field of production and automation engineering and IT, horizontal integration refers to the combination of the various IT systems used in the different stages of the manufacturing and business planning processes that involve an exchange of materials, energy and information both within a company (e. g. inbound logistics, production, outbound logistics, marketing) and between several different companies (value networks) (Kagermann et al., 2013). These new value creation networks are optimized real-time systems that enable integrated transparency and offer a high level of flexibility (Schlöpfer et al., 2015).

To maintain global competitive advantages, companies have to focus on their core competencies while outsourcing other activities to collaborators in the network. The organization of systems multiplies the capabilities without the need for further investments (Brettel et al., 2014). In an increasingly complex world, groundbreaking innovations are often only possible by involving a variety of companies (Koch et al., 2014). In the meanwhile, this kind of horizontal integration can generate transparency since comparative information as well as individual machine status is available. Hence, the decision on priority of tasks to optimize the maintaining process can be made more accessible. On the other hand, new business modes and new models for cooperation will emerge due to the reason that new business models can only be developed when several companies contribute their respective complementary competencies (Koch et al., 2014).

To exploit the flexibility potential of collaborations, the supply chain has to be designed to allow adaptation of routes and schedules (Brettel et al., 2014). In the condition of supply chain management, agility goes hand in hand with the ability to track commodity flows but also data concerning delivery reliability and customer satisfaction. Hence, similar to networked production systems, horizontal networks provide networking via CPS which creates transparency and flexibility across the entire process chains from purchasing through production to sales. (Schlöpfer et al., 2015).

c. Through-engineering across the entire value chain

The third principal characteristic of the 4.0 industrial revolution is cross-disciplinary through-engineering across the whole value chain and the full life-cycle of products and clients (Schlöpfer et al., 2015).

This engineering happens seamlessly during the design, improvement, and production of new products and services. New products need new and/or modified production systems. The improvement and production of new products and production systems are integrated and coordinated with product life cycles, enabling new synergies to be created between product development and production systems.

Characteristic of this through-engineering is that data and information are also available at all stages of a product's lifecycle, enabling new, more flexible processes to be defined from data via modeling to prototypes and the production stage.

d. Acceleration through exponential technologies

The fourth main characteristic of industry 4.0 is the impact of exponential technologies as an accelerator or catalyst that allows individualized solutions, flexibility and cost savings in industrial processes (Schläpfer et al., 2015).

Industry 4.0 already requires automation solutions to be highly cognitive and highly autonomous. Artificial intelligence (AI), advanced robotics and sensor technology, 3D printing, have the potential to increase autonomy further still and to speed up individualization and flexibilization.

The impact of Industrial Revolution 4.0 on the labor market.

Industrial Revolution 4.0 will also set new requirements for the knowledge and skills of workers. They can be divided into three groups:

- That knowledge and skills which are related to cognitive, systematic thinking, critical thinking, adaptive skills, creative skills.
- Physical skills: language skills, digital skills, communication skills.
- Social skills: communication, behavior, relationships, teamwork.

Thus, the application of the knowledge and skills to innovate is more important than the previous specialized knowledge and skills.

However, in addition to the tremendous positive effects mentioned above, the Industrial Revolution 4.0 also poses many challenges, especially that will dramatically change the structure of labor and labor markets. Automation systems will gradually replace manual labor in the economy as a whole, the shift from workers to machines will increase the gap between profitability per capital and profitability per labor. This will affect the income of simple workers and increase unemployment. The high proportion of high-quality labor increases, resulting in an increasingly fragmented employment market into high-skill, low-skill markets that will lead to increased fragmentation or creation the demand of definitely new jobs compared to the past, which requires active preparation and appropriate regulatory policies.

The problems of Vietnamese higher education system

Despite reforms and increases in the availability of educational opportunities, Vietnam's education system is not able to adequately meet the country's increased need for innovation, research and development, and for high-quality, skilled human resources-needs caused by the fast development of the Vietnamese economy (WorldBank, 2008). In the early 2000s, the higher education system was criticized for over-producing science and technology graduates (Le, 2014); such graduates sometimes had to take jobs below and/or different from those for which they were trained (Vallely and Wilkinson, 2008). Further, the higher education system has not fulfilled the role of an incubator of technical innovation, which constrains the creation of new knowledge and is hindering levels of productivity. Unfortunately, despite the more significant numbers of higher education graduates, the education system has not produced the educated workforce that the Vietnamese economy and society are demanding, as will be further discussed later in this paper. As a result of these constraints on the provision of innovative and essential skills, the adaptation of new technologies has been hindered and the gap between demand and supply of critical skills seems to have widened (WorldBank, 2008).

Also, the quality and relevance of the higher education programs and equitable access and inclusiveness for all citizens, especially the poor, are of great concern (WorldBank, 2008). To add to the issue of the quality of the education system, (Vallely and Wilkinson, 2008) indicate that no Vietnamese university is recognized for either its quality of teaching or research in any league table of leading Asian universities or are they mentioned in global rankings. These authors emphasize that, unfortunately, universities in Vietnam are isolated from international currents of knowledge and show very little evidence of research publications, especially in comparison with some of the universities in the Republic of Korea, China, and Singapore. In this context, Vietnam appears to lag far behind its Southeast and East Asian neighbors, and even further behind when compared to developed countries. However, equally, it must be noted that Vietnamese universities have made significant progress in increasing the number of research publications and citations in the past 20 years (Welch, 2012), especially in light of the country's current economic conditions.

Another serious issue lies within the curricula of the Vietnamese higher education system, which neither adequately prepares Vietnamese graduates with needed skills nor for professional life or studying abroad (Valley and Wilkinson, 2008). These issues reveal difficulties for international investors when hiring locally qualified and/or skilled graduates, even though the candidates have appropriate undergraduate qualifications.

Thus, the above overview of contemporary Vietnamese higher education reveals serious barriers and negative implications for skilled workforce development and attracting foreign direct investment, and, most importantly, for the long-term competitiveness and growth of Vietnam in the global knowledge economy.

New thinking for the transition of Vietnamese higher education system

Teaching methods in the Fourth Industrial Revolution (Teaching 4.0)

a. Digital simulation for teaching, learning, and training

Education institutions have to act now to recognize wearable's immense potential to change the way that the students are taught and trained and how they learn also. Take digital simulation; it is a handy tool for engineers to analyze and predict the state of real-world physical systems. In the age of the 4.0 industrial revolution, when the presence of cyber-physical systems become a new model, digital simulations play an important role in both practical applications and education. Within the area of digital simulation, finite element analysis (FEA) is a clever technique which has been studied in various engineering fields such as analyzing buildings (Marwala et al., 2016, Marwala, 2012, Marwala, 2010). Modern FEA is often achieved with the assistance of computers. As a result, students can understand key concepts more intuitively, and engineers can conduct complex modeling and interpret results easily. Although, such setup has limited the FEA processes in a virtual and offline environment, these limitations, in turn, deprive the human understanding of many physical characteristics (e.g., scale, context, spatial qualities, and materials).

b. Embrace massive open online courses (MOOCs)

Teaching has long been restrained by the following way: students required to gather in a lecture hall to listen to the professor or sit around a table to discuss with peer friends. Technology innovation is relaxing those limitations and bringing progressive advance to higher education. Massive open online courses, or MOOCs, is an education method that gives stand-alone education online and help students to access the materials anywhere, anytime.

c. Cultivating Innovative Talent

There is a fact that, most developing or under-developed countries lack innovative talent, especially at the high end. To fully take the possibility of another wave of industrialization, the higher education system of a country should not only focus on education knowledge-based skilled person but also have a good look at fostering innovative talent, especially high-level experts and technologists. These experts must be trained in an interdisciplinary background where technologists should understand humanities and social science and vice versa.

Service in the Fourth Industrial Revolution (Service 4.0)

a. Education-as-a-Service (EaaS)

Typically, in the era of 4th industrial revolution, once every couple of decades, a disruptive new technology arises that substantially changes the blueprint of many sectors. Concerning higher education, the massive proliferation of affordable mobile devices, Internet broadband connectivity, and rich education content start a trend of transforming how training is delivered. Cloud computing, amongst other techniques, creates a new way of educating people that might eventually disrupt the existing higher education systems. With the support of education cloud, government decision-makers and business practitioners can answer some fundamental strategic questions comprehensively: deliver education in the quickest, most efficient and best affordability form; develop the skills for the 21st-century students and prepare students for the new job market in the most appropriate way. Besides that, they can encourage native innovation with the most substantial influences; and share resources across organizations, districts, areas, or the entire country in the smoothest fashion. When the universities think of adopting EaaS, they often imagine profound advertising

campaigns, big promotion budgets, and a massive amount of investment in infrastructure. Favorably, EaaS has better respect for the students than academicians have for disruptive ways of giving education service. The heart of EaaS is the belief that students' needs should be met effectively. Consequently, when a higher education organization sets out to attract a potential student as a customer, it needs to perform some experience for all-round education so that it is genuinely capable of satisfying the customer's needs, although, this process is not as simple as it may seem. EaaS is not the creation of pseudo differentiation via a change in logo, location, or making vague promises with empty-sounding words. Furthermore, higher education institutions have a responsibility to a host of stakeholders like governments, the public and private funding sources, accrediting agencies, academics, management, support staff, and students. An EaaS orientation that changes into an active education scheme will achieve these broader concerns. Nonetheless, many institutions adopt EaaS strategy unsuccessfully by giving lip service to various stakeholders. Education and technology have advanced over the past few decades. Many technology-assisted / enhanced educational practices are no longer as simplistic. In Service 4.0, EaaS as a guideline has to find newer and more advanced strategies to cope with ever-increasing societal complexity.

b. Internationally-linked Programmes

With the fast speed of the 4th industrial revolution, shaping various kinds of institutional linkages, both domestically and internationally, to offer more professional qualifications and varied degree programmes becomes a crucial requirement for the Vietnamese education system. Among these plans, the following types stand out and are worth consideration: First, twinning programmes where a local education provider cooperates with a foreign education provider to develop a connected system enabling course credits to be taken in various locations. On completion of the twinning programme, international education provider awards a qualification. Second, franchise programme is a scenario where foreign education provider authorizes a local education provider to deliver their courses/applications, and the international education provider awards the qualification. Third, the double or joint degree is an arrangement where local and foreign education providers cooperate to offer a programme for a diploma that is awarded jointly or from each of them. Fourth, blended learning where domestic and international education providers deliver programmes to enroll students in various mixed forms, e.g., e-learning, online learning or on-site learning.

Discussion

The Industrial Revolution 4.0 will bring great opportunities and challenges to the Vietnamese higher education system. To adapt to this revolution, the managers of the education system in Vietnam must first need to identify the core training areas, future-oriented training areas to meet the needs of the times and higher standards of the enterprises. Specific areas to focus on training include information technology, network management, data mining, security, materials, biomedical, robots, etc.

Also, the training institutions need to design more flexible programs, more up-to-date knowledge for students and focus on developing skills relevant to 4.0 industrial revolution, systematic and interdisciplinary thinking. The essential skills for human resources in a technology-interactive environment should include teamwork skills, creative skills, critical thinking, thinking systems, decision-making skills in uncertain conditions, etc.

Besides that, the methods to organize the lessons in universities have to change by way of using more tools such as online training, designing the virtual environments for learners and teachers to interact, research or experiment.

Teachers must constantly update their knowledge by regularly participating in training classes, seminars, conferences. Also, universities must expand the dialogue, concrete cooperation with businesses in research, training and consultancy activities; It will bring an excellent opportunity for the teachers to access the real manufacturing and business conditions for making the suitable adjustments in teaching.

Conclusion

The 4th Industrial Revolution will bring tremendous changes in the lives and socioeconomic conditions, and this is not only the challenge but also the great opportunity of the Vietnamese higher education sector in training human resources according to new demands of the time.

Given the fourth industrial revolution, a new form of a university is emerging that does teaching and service in a different manner. This university is interdisciplinary, has virtual classrooms and laboratories, virtual libraries and virtual teachers. It does, however, not degrade educational experience but augment it.

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PILOT-STUDY FOR THE MEASUREMENT OF CONSUMED FOOD IN SCHOOL CAFETERIAS

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Abstract: In Hungarian public educational institutions, it is compulsory to provide food for schoolchildren at least by one meal per day. It is legally regulated in terms of what can be served for children at school. However, careful nutritional calculations are behind this regulation, children often do not eat the whole portion they get. The aim of the paper is to give insight into the performance and success of school catering, based on the real facts of the food consumed. To get closer to this phenomenon, a method was elaborated to measure what amounts of served food are consumed in school cafeterias. A checklist was created to collect menu information, consumer numbers, the weight data of food served and weight data of the returned food. For testing the method, we launched a pilot study in five secondary schools in Budapest. Preliminary results show that pupils eat about 76% of the meal they get. This ratio is lower in case of soup dishes (74%) and higher in case of the main dishes (77%). The collected data provides us with the possibility of acquiring a detailed evaluation of the nutritional intake of schoolchildren. The results of the pilot-study brings attention to the problems of non-consumed food and the reasons for the high amount of food waste.

Keywords: food waste, plate waste, school canteens, school meals, weighing

Introduction

The eating habits of individuals are established in the early years of childhood, and the best place to begin the well-balanced and healthy diet could be at schools. Children spend about 6-8 hours in the school, which means they consume at least one main meal daily out of home, most frequently at school cafeterias. Therefore, school catering became an important task for governments, municipalities, educational institutions and catering services all over the world. The quality of food that children consume at food and the manner in which it is served and consumed should be a key priority for their families, institutions, providers and authorities.

There are basic nutritional standards that schools must meet in their canteens. As all member states of the European Union, Hungary also implemented mandatory (Ministry of Human Capacities, 2014) and voluntary guidelines (NEBIH, s.d.) for school catering, which define the content and conditions of food products and meals provided by school catering services at educational institutions. These guidelines aim to help the nutrition of children, to provide healthy food and menus, to educate healthier way of life and to stop or at least reduce childhood and teenage obesity.

Besides these requirements and standards, it is an important issue to examine how these healthy and nutritious menus are consumed, how different meals are accepted by the children, because if food is rejected by the consumers, it will be ended in the waste. Menus could be healthy and nutritious, but if they are not consumed, they will not play their role, it will generate different waste: waste of time, work, efforts, and of course money. Thus, the main objective of our research paper is to evaluate the present situation of school catering based on international literature and the results of an own field survey, to show the problem of food waste and to give suggestions how the problem could be solved by more conscious planning and managerial decisions.

Research background and literature review

School catering in Hungary is a basic social task managed at municipality level, which means that school catering services are available for each students of public educational institutions (nurseries, kindergartens, primary and secondary schools). Students shall pay the fee of the service, which covers the price of the basic raw materials, and may apply for allowances (i.e. 50-100% of the price based on normative governmental support). In the Hungarian primary schools a daily menu with three courses is available for the students of classes 1-8, which contains two snacks (cold meals) and one main course (lunch). In the classes of 9-12 of secondary schools, the daily menu includes the lunch (warm, cooked meal). The lunch contains one or more cooked courses, generally including meal or vegetable soup, meat, fish or vegetarian food with rice, potato or noodles, fresh vegetables, salads or pickles, water and bread.

One of the major challenges of school catering is the imbalance of energy intake. The proper nutrition of children influences the risks of future diseases, like high blood pressure or diabetes, improves the children's school performance and has positive effects on building social relations as well. Meanwhile, the non-appropriate nutrition of children is very frequent in Hungary and all across Europe, represented both by undernutrition and obesity conditions. Therefore, school catering is a very important field of public catering, as children spend a large part of their days at the school, so the food consumed during school time have a significant influence on their present and future health status. Good nutrition is required not only for the proper health conditions of children, but also for their mental development. Non-appropriate nutrition increases the number school absences, and is in connection with some behavioural disorders as well. The adulthood behaviour and eating patterns are formulated in the childhood, so the development of the right patterns and habits is very important, especially because of almost 80% of diseases are related to nutrition issues (OGYÉI, 2018).

In 2014, a ministerial decree was adopted in Hungary which controls the nutritional value and nutrient content of school food. This decree describes and requires the provision the proper nutritional value and nutrient content of school food, as well as the follow up and documentation of processes. The results of previous researches highlighted that not only the nutritional features but also the deliciousness of meals is also very important, as the tastefulness will influence the volume of the consumed food, instead of taking less valuable snacks (Osowski et al. 2015). According to the ministerial decree, the nutrients should be calculated for 10-day periods, and menus shall be planned according to these results. During this period, the meals served in the school canteens shall cover 35% of the recommended daily value of energy intake and the vitamin and mineral need of the given age groups.

In the past decades, the role of eating out of home has increased (Robinson and Matheson, 2015). The global food trade provides the consumers with different ready-to-eat products, which may be consumed at the working places or at home, and this process changed the former eating and food preparing habits and eating culture fundamentally. One part of this eating-out-of home process is school catering, which called public attention for several problems and risks in food safety and nutritional aspects (Tóth and Bittsánszky 2014). School catering systems need to work by complex and systematized thinking, planning, organizing and management processes, which important element is the reduction of waste in order to keep the process profitable and sustainable.

The efficiency and success of school catering; the proportion of the food consumed by schoolchildren is influenced by different factors. Among the most important influencing factors the presence of teachers, the length of time provided for eating the lunch, the regularity of eating of children, the school's communication about available meals towards the students were underlined. In addition, according to Ferreira et al. (2013), the time of consumption, the slowness of serving, and the time of serving (is it planned in accordance with the teaching lessons or not) are also very important influencing factor of the effectiveness of food consumption.

The quantity of waste influences the price of the service as well, and this is a very important factor for the mainly price-sensitive consumers and the governmental budget, as the normative support is financed by the state. Ferreira et al. (2013) stated that time factor represents an important impact on the amount of waste, as according to their research results, students who started their lunch 30 minutes after the end of classes, left less plate waste than those who started their meals just after finishing their classes.

The content of plate waste delivers important information about the acceptance of the catering service itself. Plate waste may present valuable information about the composition of the menu, the daily intake of nutrients and about the need on further trainings and recommendations in food service topics. Analysing the composition of plate waste is a good tool for measuring the efficiency of food services, consumers' preferences and the compliance with nutritional recommendations (Liz Martins et al. 2014). Previous studies confirmed that high quantity of plate waste is a result of ignoring the students' preferences and taste. It is very important to consider the consumers' needs, taste and habits, although in many cases, they are not able to estimate their own needs of nutrients (Robinson and Matheson 2015). The most general and mostly accepted influencing factors of measuring the quality of food catering services are the sensory attributes of the food (taste, aroma, colour, temperature) (Marlette et al. 2005). In case of measuring the plate waste at school kitchens, the economic features should also be considered, namely, the price of the food is fully paid, and when the plate waste is less,

it means that children consumed enough food in the daytime, this, parents shall not spend surplus money for additional snacks and other meals. It will represent less surplus costs of the households (Cohen et al. 2013).

Schools also play an important role in the fight against childhood and teenage obesity problems and in the formulation and improvement of good and healthy consumption habits. Meanwhile, because of the new scientific research results, the nutrient recommendations and dietetic reference values are changing continuously, so the current conditions and status of school catering should also be monitored continuously (Crepinsek et al. 2009).

Therefore, our researches were started to answer three main questions:

- What is the average energy and nutrient content of a school lunch?
- How much nutrients are consumed by the schoolchildren compared with the recommended amounts?
- How much is the quantity of food waste, and what is the structure of it?

Materials and methods

In order to analyse the changes of school catering services and to measure the impacts, precise, special and applicable methods are required. Tugault-Lafleur et al. (2016) divided the examination methods of the topic into two main categories. The first is the group of self-report methods, where the questionnaires are filled in by the respondents themselves, the second is the group of observational methods, where the researchers are also in the place of the examination and they make estimations on the consumption.

For measuring the food waste in school catering, three main methods are in use: (1) measuring the quantity of waste, (2) making visual estimations and (3) digital photos (Liz Martins et al. 2014). In our researches we applied the most time and labour intensive method, i.e. measuring the quantity, as it was considered as most reliable, and it was also confirmed by the most efficient type of measuring food waste as data can be generated by different steps (Gougeon et al. 2011). The chain of prepared food is described by *Fig. 1*.

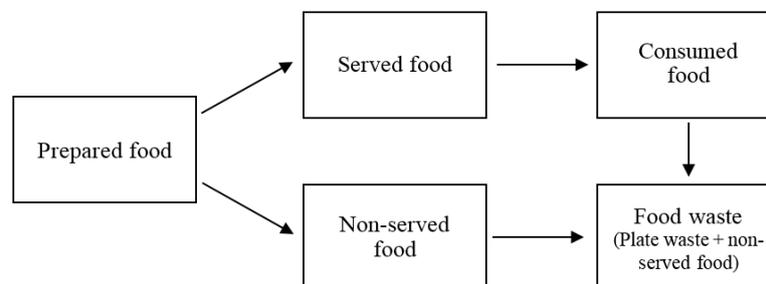


Figure 1. Chain of prepared food within the school foodservice

Source: own compilation

Our survey was conducted at 9 school kitchens at secondary schools, where 1539 portions of school lunches were analysed. The survey was led by food engineer experts, who were present from the first steps of food preparation until the end of the lunch period.

A checklist was filled in at each surveys. Checklists contained the data of the school, the nutritional data of the served food, the number of guests, the quantities of each courses, the amount of food waste of including not consumed food and non-served food (*Table 1*).

Measurements were made by scales with 1 gram accuracy, the ingredients of the daily menus were measured separately. The features and data (calories in KCAL, protein, fat and carbohydrate content) of the served and the not consumed food were calculated according to the recipes and nutrient calculation data provided by the kitchens. All of the examined school kitchens were cooking kitchens, where the meals are prepared on the spot. In the analysis of waste production we did not deal with storage and preparation wastes, our survey was focusing only serving and plate wastes according to the categorization of Betz et al. (2015). The non-served meals were calculated together with the plate waste.

Table 1. Data collection process

1	Survey Sheet: Location, Date, Time, Surveyor
2	Food ID: Soup, Main dish, Side dish, Other
3	Receipt based nutrient content: Weight, KCAL, Protein, Fat, Carbohydrate
4	Prepared food information (g): Food name, Delivery note, Measured quantity, Number of portions
5	Served food information (g/portion): Food name, Delivery note, Measured quantity
6	Non-served food (g): Food name, Measured quantity, Number of portions
7	Plate waste (g): Food name, Measured quantity, Number of portions
8	Served food (Number of portion): Soup, Main dish, Side dish, Other

Source: own research

Results and discussion

In general, the daily menu was in compliance with the compulsory recommendations in the average of the 9 school kitchens. The KCAL value of the menus was 830 (670-924). The compulsory daily amount of energy content is 700-900 KCAL, which was acceptable in 5 schools in 2 cases it was less, in 2 cases it exceeded the recommended upper value. From the prepared 1539 portions of soups 1018 portions (66%), in case of main dishes 1438 portions (93%) were served. That means, 34% of the prepared soups were ended as waste without serving.

The plate waste was 27% of the served food, it means, almost one-third of the food became waste, and the 41% of the prepared (ordered and paid) food ended as waste (Table 2).

Table 2 Rate of food waste and consumed food

Rate of food waste and consumed food (n=1539)					
	Weight (g)	KCAL	Protein (g)	Fat (g)	Carbo-hydrate (g)
Prepared food	1 143 240	1 224 063	50 654	66 116	103 964
Served food	895 256	1 038 838	43 029	56 356	87 645
Consumed food	673 353	813 703	33 625	44 805	67 232
Waste food*	469 887	410 360	17 029	21 311	36 733
Percentage of consumed food	59%	66%	66%	68%	65%
Percentage of waste food	41%	34%	34%	32%	35%

*Waste food: Non-served food and Plate waste

Source: own research

The comparison of our research results with international literature sources is very complicated due to the differences between the examined age groups. Nevertheless, as it was stated by Portuguese researchers, the proportions of the consumed food is increasing by the age of the children. In kindergartens, 11% of the soup is rejected, while this proportion is 21,6% in primary schools (Ferreira et al. 2013). According to their research results, in secondary schools, 31% of the served soups, and 54% of the served-and non-served soups went to the waste. In the research results of Byker et al. (2014), in kindergartens, 45,3% of served meals became waste.

The survey of Ferreira et al. (2013) among university students represented 29% waste in total (served and non-served) dishes. In our present study, the results showed that in secondary schools, 41% of the total prepared food is ended as waste. In our results, 66% of the KCAL value of the served food was consumed (see Table 2), which is better by 15% as it was found by Cohen et al. (2013). When examining the proportion of waste food (469.887 g = 100%) a small difference was detected between plate waste (47%) and non-served food (53%).

In the further examination of served food according to different categories, our research results concluded that 918 portions of one-course dishes were served and in 520 cases the meal included meat or fish and various side-dishes. Analysing the efficiency of consuming it was found that according to their weight, 69% of served soups were consumed, while the highest share (81%) of consumed food was in the category of main dishes (meat, fish). The consumption of side dishes was equal with the soups (69%) and 74% of one-course dishes were full consumed.

Table 3. Consumed foods as a percentage of the served foods

	No. of portion	Weight	KCAL	Protein	Fat	Carbohydrate
Soup	1 018	69%	69%	68%	69%	69%
One-course dish	918	74%	78%	78%	79%	75%
Main dish	520	81%	84%	81%	90%	79%
Side dish	520	69%	70%	70%	69%	70%
Main+side dish	520	73%	75%	77%	77%	72%

Source: own research

Table 3 summarizes the share of consumption of served food types according to their weights and the different nutrient types, which gives important information for analysing the appropriateness of the efficiency of children's nutrition.

Conclusion

Our research results were similar to previous research findings. Our results confirmed the results of Dinis et al. (2013), who highlighted that the official recommendations and directives about the nutrition content and composition of the food prepared for schoolchildren are appropriate in nutrition science aspects, but the efficiency of nutrition consumption is inadequate.

In most of the schools, meals that were prepared and served for the schoolchildren fully complied with the nutritional requirements related to the energy, fat, carbohydrate and protein content of meals, but the share of the consumption of these meals was inappropriate. This fact will raise new, serious questions in the future, which should be discussed and problems should be solved. The high proportion of non-served food and the high quantity of the plate waste highlights that the catering system does not work properly.

The content of the served meals may be regulated by laws and recommendations, but laws and regulations cannot influence the children's choice and preferences. Thus, the catering system cannot comply properly with its initial goals: decreasing obesity and provision of enough food for every students, particularly who came from poor families (Crepinsek et al. 2009).

The children's choice and preferences are highly influenced by the human factors, such as the attitudes and knowledge of kitchen staff, as the favourable attitude of the kitchen workers will increase the quality, the taste, the aroma, the hedonic value of the served food, and the consumers satisfaction as well. (Cohen et al. 2013).

Our research explored that the problem of food waste in school cafeterias is an existing problem, and research results highlighted which are the main meal types which are less accepted by the schoolchildren. These results could be a warning sign for catering services, nutritional experts and for school cafeteria management and employees. The food waste is not only the waste of raw materials, but it means the employees' wasted work and time, the consumers' wasted money, and finally, waste of all efforts, as children could not intake the nutrients they need. The results showing the percentage of food waste should be considered by the managers of school catering services, and it is suggested to use them in the managerial decisions of catering managers during the planning process, as by more conscious decisions on meal types the percentage of consumed food (and the consumed nutrients) could be increased. For solving these problems, a comprehensive restructuring of the food preparation is needed; it is not enough to change the nutrition standards and changing the menus (Crepinsek et al. 2009). Additional researches should be conducted to analyse the food preferences of children of different age groups, as the system could be optimized only if the improvements are harmonized with the needs and preferences of the final consumers, namely, schoolchildren.

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DETERMINATION OF THE STRATEGIC POSITION OF A PRINTING ENTERPRISE

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Abstract: Strategy is a high level plan to achieve goals under conditions of uncertainty. Thanks to a well-structured strategy, the enterprise can gain a competitive advantage on the market. The choice of the strategy should be preceded by an appropriate analysis that will determine its state and indicate opportunities for growth. One of the most commonly used instruments for determining the strategy is the SWOT method.

The purpose of the paper is to use the SWOT method to determine the strategic position of the chosen printing enterprise. The type of strategy that was appropriate to the situation of the research enterprise was determined. It turned out that for the research printing enterprise the appropriate strategy is the maxi-maxi strategy, i.e. expansive strategy. In the enterprise, strengths and opportunities dominate. On this basis, it was possible to indicate how to utilize opportunities to improve the strengths of the research printing enterprise.

Keywords: management, strategic position, strategy, SWOT

Introduction

Nowadays every enterprise operates in an environment which is changing constantly. The process which can analyze these changes and modify the way the enterprise can react is called strategy.

In the literature there are lots of different definitions of strategy. But all of them are based on old definitions. According to Chandler, strategy is "the determination of the basic long-term goals of an enterprise, and the adoption of courses of actions and the allocation of resources necessary to carry out these goals (Chandler 1962).

Very similar definition was created by Learned, Christensen, Andrews, and Guth. According to them the strategy is "the pattern of objectives, purposes or goals and major policies and plans for achieving these goals, stated in such a way as to define what businesses the company is in or is to be" (Learned et al. 1965).

H. Mintzberg (Mintzberg 1979) proposed an innovative way of looking at strategies. His concept assumes to take into account and use all 5 elements beginning with the letter P: plan, pattern ploy, position, perspective.

Creation of a strategy is a search for synthesis, but it is impossible to create a decent strategy of the enterprise without a reliable analysis of its environment and its actions. One of the most useful tools that can be used to create strategies is the SWOT method. It allows the enterprise to use the information to develop a strategy based on the strengths and opportunities, while reducing or eliminating weaknesses and threats (Kotus et al. 2013), (Lestyánszka Škúrková & Kudičová 2011).

Printing industry in Poland is quite well - the services and products offered by Polish representatives of this sector are increasingly popular also abroad. The best situation in the market is in the medium-sized and big enterprises. The entire printing industry is very fast in its try to introduce various IT solutions that can significantly improve the performance of enterprises. Modern solutions are an opportunity for development on the domestic market, for becoming a part of the foreign markets for a greater number of printing enterprises. Already today a large number of enterprises have websites that help customers to make orders and pay for them (Printing Industry & Printed Packaging Market in Poland 2016).

The printing industry is often skipped in researches conducted by Polish scientists, so the author decided to conduct an analysis of chosen enterprise from this industry. This paper is the first stage of a project conducted in cooperation with this printing enterprise, which will determine initial situation of this enterprise.

The purpose of the article was to use the SWOT method to determine the strategic position of chosen printing enterprise. Methodology of the research was described shortly and chosen enterprise was characterized. As a result of the SWOT analysis, the type of strategy that was appropriate to the situation of the research enterprise was determined.

Methodology

SWOT analysis is one of the most popular analytical techniques. It is used to build an overall development strategy as well as functional strategies, concerning a function to be performed by a state, a local government unit or an enterprise (Goranczewski, Puciato 2010). Gierszewska and Romanowska (Gierszewska, Romanowska 2002) claim that SWOT is not a method of strategic analysis but is 'a unique algorithm of a strategic analysis process, a systemic proposal and a wide-ranging evaluation of external and internal factors which specify a company's current status and its development potential'. Its key purpose is to identify the strategies that will create a specific business model that will best align an organization's resources and capabilities to the requirements of the environment (Pustějovská et al. 2012), (Skowron-Grabowska & Kadłubek 2010).

SWOT analysis can be carried out for an organization, product, place, industry or person. It involves specifying the objective of the business venture or project and identifying the internal and external factors that are favourable and unfavourable to achieving that objective. The technique is credited to Albert Humphrey, who led a convention at the Stanford Research Institute (now SRI International) in the 1960s and 1970s (Prusak et al. 2012), (Dulska et al. 2017).

The SWOT analysis allows to divide the collected information into four groups (*Figure 1*) (Ingaldi et al. 2013), (Czajkowska 2015):

- S (Strengths) – everything that is an asset, advantage, predominance of the enterprise. These are elements that positively distinguish the enterprise from the environment and from the competition, key success factors of the enterprise that allow it to adapt to the changing conditions of the market environment.
- W (Weaknesses) – everything that is deficiency, barrier, defect of the enterprise. They are a consequence of resource constraints and insufficient qualifications of employees. The weaknesses are related to any areas that limit performance and respond to changing customer requirements and competitive behavior.
- O (Opportunities) – everything that creates a chance of a positive change. These are all existing or anticipated processes, phenomena and trends in the environment of the enterprise that can be appropriately used as an impetus for its development and help to mitigate the impact of any emerging threats.
- T (Threats) – everything that creates the danger of unfavorable change. These are all processes, phenomena and trends that occur in the environment that are or may be a barrier to the development of the enterprise, impede its functioning, increase operating costs, or may lead to business failure.

	Helpful	Harmful
Internal origin	Strengths	Weaknesses
External origin	Opportunities	Threats

Figure 1. Elements of SWOT analysis

Source: own study based on SWOT analysis. Strategy skills. Team FME, 2013

The effect of the SWOT is to determine the strategy for the analyzed enterprise. There are four potential strategic situations (Goranczewski, Puciato 2010):

SO – a maxi-maxi (expansive) strategy. This concerns an organization dominated by strengths inside and opportunities in its environment. The strengths should be used to take advantage of the opportunities from the environment, through strong market expansion and attempts to achieve diversified development.

WO – a mini-maxi (competitive) strategy. This refers to an organization which is dominated by weaknesses, but operates in a favourable environment. Its strategy, consequently, should be focused on taking advantage of the opportunities and, at the same time, eliminating the weaknesses.

ST – a maxi-mini (conservative) strategy. In this situation, an organization has great internal potential but operates in adverse external conditions. Therefore, it needs to overcome the threats, making the best use of its strengths.

WT – a mini-mini (defensive) strategy. This concerns an organization without any prospect for development and with a small internal potential, operating in an adverse external situation. Its aim is to minimize the weaknesses and avoid the threats.

In the paper to determine the strategic position of the printing enterprise, the internal analysis, in which strengths and weaknesses have been pointed out, and the external analysis, which allowed to determine the opportunities and threats in the environment were done. The assessment of the strategic position of the enterprise were carried out in stages. The first step was to assign a weight in each group, when added, must score 1. The weights were given according to the importance of elements in the printing industry. The next step was to attribute the assessment of severity in a 9-point Parker scale to each elements according to their importance for the research enterprise. The products of weight and weighted averages were calculated (Kadłubek, Ingaldi 2016).

SWOT allows to determine the strategic position of the enterprise, as the point on a coordinate system, according to following formulas (Ingaldi et al. 2013):

$$Y = |\text{strengths}| - |\text{weaknesses}| \quad X = |\text{opportunities}| - |\text{threats}| \quad (1)$$

Characteristics of the research enterprise

The research was conducted in a printing enterprise located in Czestochowa. It is a small, private enterprise that has been operating in the market since the mid-nineties. It gained reputation on the local and Polish market, it has its regular customers. It is slowly getting also foreign customers. The printing enterprise offers its customers different type of printing: books printing, press printing, jobbing printing. Important element of the process of the books printing books is to combine the paper with the cover. Press printing is a technology that produces a newspaper and a magazine. While during the jobbing printing various types of packaging, leaflets, brochures catalogs, etc. are produced.

The brochures printed in the enterprise are small printing products, counting on average 6 pages. Depending on the individual order, brochure's covers can be coated with foil while laminating, and their format ranges from A6 to A4. Cooperating with the local city council, the printing enterprise handles the print of a local newspaper. For several years it has been strictly performing orders entrusted by one of Cracow's banks. It prints the address of the bank and its logo on envelopes which are sent later to its customers. The research enterprise began to print different type packaging. They are formed on a substrate called cardboard and are folded in appropriate places to create a shape consistent with the customer's order. The research enterprise offers small and large format printing. It prints its products on sheets of A1-A7 dimensions, on a wide range of paper.

Results and Discussion

Table 1 presents the classification of each group of factors having an influence on the strategic position of the research company.

To determine the coordinates of the point of the research enterprise which represents its strategic position (*Figure 2*), the following calculation was made:

$$Y = 6.75 - 4.85 = 1.90 \quad X = 6.2 - 5.7 = 0.5 \quad (2)$$

It can be concluded that the research printing enterprise had more strengths than weaknesses, and that in its surroundings there are more opportunities than threats, i.e. that the research enterprise is located in the first quarter of the Cartesian system (maxi-maxi strategy). The enterprise should use strengths to maximize opportunities.

Table 1. Classification of strengths of the research printing enterprise

No	Strengths	Weight	Evaluation	Product
S1	High level of skills of the employees	0.05	6	0.3
S2	High quality of printed products	0.1	8	0.8
S3	Competitive prices of offered products	0.05	4	0.2
S4	Quick execution of orders	0.05	7	0.35
S5	Timely execution of orders	0.15	6	0.9
S6	Modern machine park	0.05	7	0.35
S7	Long experience	0.05	6	0.3
S8	Wide assortment	0.1	8	0.8
S9	Modern design	0.15	8	1.2
S10	Flexibility of production	0.15	7	1.05
S11	Regular contractors	0.1	5	0.5
Weighted average				6.75
No	Weaknesses	Weight	Evaluation	Product
W1	High cost of maintenance of the machinery and equipment	0.1	4	0.4
W2	Extended period of settlements with customers	0.15	3	0.45
W3	Minor delays in deliveries	0.05	4	0.2
W4	Small number of wholesale customers	0.1	7	0.7
W5	Mostly customer (non-standard) orders	0.1	4	0.4
W6	Slightly developed marketing department	0.1	5	0.5
W7	Little recognition of the enterprise	0.2	5	1
W8	Poor advertisement	0.2	6	1.2
Weighted average				4.85
No	Opportunities	Weight	Evaluation	Product
O1	Possibility to expand the range of the offered products	0.4	7	2.8
O2	Possibility to raise the qualifications of employees	0.2	6	1.2
O3	Development of printing technologies	0.2	3	0.6
O4	Possibility to promote and advertise the enterprise on the Internet	0.2	8	1.6
Weighted average				6.2
No	Threats	Weight	Evaluation	Product
T1	The emergence of the e-book market	0.3	7	2.1
T2	Computer and cell phone software and hardware used by potential customers	0.3	6	1.8
T3	High competitiveness of the printing industry	0.2	5	1
T4	Merging and agreements of current competitors	0.1	4	0.4
T5	Creating new enterprises operating in the industry	0.1	4	0.4
Weighted average				5.7

Source: own study

Several elements contributed to the results. Between strengths, following elements deserve special attention: high quality of printed products (S2), wide assortment (S8) and modern design (S9). All these elements were rated at 8. Customers praise the quality of printed products. In this way satisfied customers may come back to the research enterprise and order other printed product, maybe even convince other customers to take advantage of this enterprise offer. They praise also wide assortment and modern design of products. This is important, because nowadays customers are getting newer and more complicated ideas, increasing demands. So the research printing enterprise can meet all these requirements. Competitive prices of offered products was rated the lowest in this group (4). Too high prices may result in situation where customers, who take into account mainly the price, can take advantage of the offer of other enterprises.



Figure 2. Strategic position of the research printing enterprise

Source: own study

Between weaknesses following elements dominated: small number of wholesale customers (W4), poor advertisement (W6), both at 6. The wholesalers customers are customers who regularly order a certain, often large quantity of printing products, which influences the constant profit, hence this weakness in the analysis. On the other hand, poor advertisement means that many customers, who use the printing industry, do not know that the research enterprise exists and what offers. Extended period of settlements with customers (W2) was rated the lowest at 3. This means that the research printing enterprise has little problem with this element.

In case of the research printing enterprise not too many opportunities were noticed but they were rated quite high. Possibility to promote and advertise the enterprise on the Internet (O4) was the most important opportunity for the research enterprise (evaluation 8). It can help to improve the advertising and promotion of the enterprise. The Internet is used by many people, potential customers, so it is easy to reach a wider group of them. Many people say that nowadays any company that is not on the Internet, has no chance of success and profits. Next opportunity is possibility to expand the range of the offered products (O1), rated at 7. Thanks to the flexibility of production, the research enterprise is able to adapt to new ideas and orders of its customers, and then introduce such orders into its offer. Development of printing technologies (O3) was rated at 3, because the existing technology on the market is modern, but also the equipment of the enterprise has been highly rated between strengths. That is why this is an important element, but it will not have as much impact as the rest of opportunities.

Between threats following elements dominated: the emergence of the e-book market (T1) and computer and cell phone software and hardware used by potential customer (T2). E-books are electronic forms of books that instead of reading, the customers listen. Many people also have well-equipped computers or phones that allow to print many things alone.

The proposed elements of the expansive strategy based on the SWOT analysis are presented in Table 2.

Table 2. Elements of the strategy of the research printing enterprise

	↓ Strengths (S1-S11)	Weaknesses (W1-W8)
Opportunities (O1-O4) 	Possibility to expand the range of the offered products (O1) can help to further broaden the already wide assortment (S8), modernize design of the enterprise (S9) and improve flexibility of production (S10). Possibility to raise the qualifications of employees (O2) can help to rise already high level of skill of the employees (S1), which can improve already high quality of printed products (S2), improve quick execution of orders (S4) and timely execution of orders (S5). Development of printing technologies (O3) can be implemented and used by the research printing enterprise to improve already high quality of printed products (S2), to modernize machine park (S6), to further broaden the already wide assortment (S8), to modernize design of the enterprise (S9) and improve flexibility of production (S10). Possibility to promote and advertise the enterprise on the Internet (O4) can help to cut high costs for advertising and thus will affect competitive prices of offered products (S3), allow to fight for new customers and thus can expand the number of regular customers (S11).	
Threats (T1-T5)		Suggested expansive strategy

Source: own study

Conclusion

In the paper the results of the SWOT analysis for chosen printing enterprise were presented. This analysis allowed to indicate its strategic position of this enterprise and future directions of its activities that should be included in its strategy plans. The research was carried out in a chosen printing enterprise because of the great interest in such products and lack of interest of the scientists in research of that industry. It is a small enterprise that is located in Częstochowa, which has already got its reputation.

High quality of printed products, wide assortment and modern design were rated as the most important strengths of the research printing enterprise, while wholesale customers and poor advertisement dominated between the weaknesses. Possibility to promote and advertise the enterprise on the Internet was the most important opportunity of the enterprise while the emergence of the e-book market and computer and cell phone software and hardware used by potential customers were mentioned as the biggest threats.

According to conducted analysis it was shown that expansive strategy (maxi-maxi strategy) was suggested for the research printing enterprise. On this basis, it was possible to indicate how to utilize opportunities to improve the strengths of the research printing enterprise.

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EMPLOYER BRANDING FROM THE PERSPECTIVE OF SOCIAL IDENTITY APPROACH

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Abstract: Employer brand is a modern tool to improve business efficiency by strengthening one of the main assets of the company – human capital. A strong and healthy employer brand can attract and retain good professionals in the company. The article deals with a new approach for the sphere of employer branding, based on the reference to the social identity approach. The phenomenon of identity reflects a person's participation in professional, socio-political and other communities, such as organization, family, country, ethnic group, etc. It shows a complex of status-role interpersonal and inter-group relations of the individual. The empirical research facilitates the consideration of social identity as a factor of perception of the employer's brand. The aim of this study was to reveal the relevant indicators of the employer's brand by employees with different social identity types. All respondents (N=131) were divided into groups with basic identity and professional identity. The similarities of the groups relate to such indicators as: "characteristics of the company", "compensation & benefits" and "professional development opportunities". A significant difference of the groups was in "social trust" perception parameters, which is more important for people with a basic type of social identity. The study is of an applied nature. The practical significance of the study is associated with the identification of psychological factors to increase the attractiveness of the employer's brand to attract and retain employees with the necessary competences.

Key words: employer's brand, social identity, social psychology of personality, business psychology, psychology of management

Introduction

The economic trends of many countries in modern conditions are in the majority of cases quite similar and can be defined as unstable and crisis ones. The current economic situation requires organizations to create competitive advantages, which will help to develop in future. The defining feature in this process is transnational corporations strengthening and the rapid social communications development, which makes the competition sufficiently rigid. To ensure companies sustainable development business needs employees who will share organizational goals and values to include them in the framework of their activities. That is why organizations need to use different managerial means, which will attract and retain the best teams and employees.

Recently, there has been a persistent tendency towards increased attention from the parties of scientists and practitioners to employer branding as a means of corporate management, which ensures the maintenance of a stable position of the company. Developed employer brand creates a long-term competitive advantage of the organization on the labor market. HR branding is a method of managing the human resources of the organization, including the stage of staff recruitment, which makes it possible to provide the desired direction of formation and development of corporate culture (Arkova, 2012).

The model of employer branding is in fact included in all levels of management and promotes the market position strengthening due to the fact it is aimed at the employer brand creation as an attractive company with organizational strengths and values. Employer brand creation can also turn into a concept of strong culture and shared values to ensure the effective adaptation of employees and newcomers (Dave, 2006).

Background

In a number of works, Employer branding is seen as the company's efforts to interact with real and potential employees, which makes it an attractive place to work (Martin, Beaumont, Doig, Pate, 2005). It is also an active management of the company's image in the eyes of partners, potential employees and other key stakeholders, based on the Employee value proposition (EVP) (Minchington, 2006).

A significant contribution to the concept of "Employer brand" definition and usage was made by D. Aaker, who claimed that the brand is not only an intangible asset of the company, but also its strategic function (Aaker, 1996).

Strong Employer brand provides the company an attractive image in the external environment, which allows it to hire best talents in the labor market. In addition it forms trust, which ensures the perception of the company as a reliable partner, responsible employer and attractive partner for clients (Lloyd, 2002).

The topic of employer brand is new for modern HR community, its theoretical and methodological basis is just beginning to form. This topic is actively discussed in print and online publications and is steadily gaining popularity.

Initially, the concept of "Employer branding" was used in the field of practical management and only last years it has been the subject of both foreign and domestic scientists' attention. Employer branding researches are most actively conducted in the UK, Belgium, the USA, Australia by such researchers as S. Lloyd (2002), B. Michington (Minchington, 2006), R. Mosley (Mosley, 2010), P. Walker (Walker, 2010), etc. Among Russian scientists should be mentioned such scientists as: A. Alavertov (Alavertov, 2012), T. Arkova (Arkova, 2012), S. Ivanova (Ivanova, 2013) and others. From these works we find that the employer brand perception differs depending on employees' preferences, status, demographic characteristics and so on.

It is not clear which specific social and psychological characteristics of employer brand make employees stay in the organization in the context of the struggle for talented personnel. Which people are attracted by the employer brand of this company? What builds the positive attitude towards organization? What is necessary to be taken into account while building an effective communication model? Etc.

While employer brand perception study we focus our attention at the personal socio-psychological characteristics. As the main characteristic we consider social identity. Social identity is an area of research, which is a key point in the psychology of social cognition and is associated with the study of self-determination of the individual in relation to social communities (Andreeva, 2000). The notion of identity becomes one of the central concepts in psychology and other humanities, as it is associated with a complex of problems of social theory and practice. In recent years, social identity is beginning to be investigated in relation to the problems of organizations (Haslam, 2004).

The methodological basis of our approach is the Theory of social identity (Tajfel, 1982; Tajfel, Turner, 1986). In this theory social identity is defined as the part of the individual self-concept that derives from the knowledge of the individual about his / her own belonging to a social group or groups together with the value and emotional manifestations of this belonging.

Developing this point of view, we should note that social identity is a cognitive-motivational aspect of the self-concept. Knowledge of one's place in the social environment is accompanied by some acceptance of its values. We distinguish three different types of social identity: a) "basic", narrowly localized, national, regional and family community; b) "individual-personal", focus on mastering the requirements of the culture of both narrow and wider community; c) "professional", wider located, professional, social, community (Ivanova, 2004).

In a society with high social status profession professional identity is a leading factor of psychological well-being, which gives a sense of stability of the world, confidence in their abilities. Professional identity is viewed in relation to one's behavioral and conceptual antagonist – occupational marginalization (Ermolaeva, 2001).

These theoretical assumptions formed the basis of empirical research.

Methodology

The object of our research is the employer branding as a process of building the employee's perception of the company. The subject is connected with psychological factors of employer brand perception, such as social identity. The aim of the study was to identify the importance of employer brand indicators by employees with different types of social identity.

Sampling, procedure, methods:

The study is based on a combination of nomothetic and idiographic approaches. The sample (N = 131) included employed respondents aged from 18 to 52 years (59% women and 41% men). They are representatives of the youth (18-21 years) and secondary (22-52 years) ages. The significance of employer brand influence is important in this age for example in cases of changing jobs or during work.

There were supposed to be differences in the evaluation of the brand by employers of people with basic and professional type of identity. We assumed that for employees with the professional type of actualized identity, unlike the basic one, more significant characteristics of the employer brand, which relate to the company itself, working conditions and benefits, opportunities for career, training and professional development in the company.

The identification of identity characteristics was carried out within the framework of our understanding of the structure of social identity with the use of a complex of techniques tested in previous studies.

We used two blocks of research procedures with respondents: a) to define the significant characteristics of the employer brand; b) to identify the types of social identity.

In the first stage of the study all subjects were interviewed to identify the perception of HR brand.

For the assessment of HR-brand for target audience we used the author's questionnaire to assess the value proposals of the employer company. The questionnaire allows revealing subjective assessments of respondents about the importance of various value proposals of the employer's brand, features of perception of the employer's brand.

The questionnaire was developed using the method of expert analysis and subsequent factor analysis. As experts were involved experienced professionals in the analysis of HR brand and consumer behavior (N=10). Experts assessed what characteristics of the company (out of 35) relate to HR-brand indicators by the method of set point estimates (1 – refers to the HR-brand, 0 – does not apply). On the basis of expert assessments and subsequent factorial analysis 13 indicators of HR-brand of the company were identified: Company's size, Repute International Company, Company's age, Manager's personality, Social responsibility, Attractiveness of goods and services, Salary, Company's stability, Office proximity, Convenient work schedule, Professional development possibilities, Career development opportunities. These indicators were included in the questionnaire.

Respondents rated the value proposition of the employer from 1 (absolutely not important) to 5 (extremely important). As a result, employer brand indicators that are relevant for current or potential employees were identified.

In the second stage of the study the role of social identity type in employer brand perception by comparison of extreme groups was revealed. Employees with basic and professional identity were considered as comparable groups. We believe that professional identity is one of the most important indicators of professional personality formation. And modern professional in a company should be able to constantly develop and find his place in the social and professional environment.

Two groups of employees with different types of identity were identified. Then the perception of the employer brand in two groups was compared.

The type of social identity was determined on the basis of a combination of cognitive and value components of identity, based on the previously developed model of the identity structure (Ivanova, 2004).

The identity type procedure included three steps:

A) Cognitive component of social identity were revealed by the famous M. Kuhn and T. McPartland "Who am I?" test, which is an open self-description form (Kuhn, McPartland, 1951). This methodology covers all areas of reflection about personality and gives the opportunity to define the social roles in which people think they are at the moment. The answers to this question reveal cognitive components of social identity.

Every respondent answered the question "Who am I?" twenty times. They can use any words for self-description. Further, with the help of qualified expert psychologists conducted content analysis of answers, allowing us to attribute each answer to the social category. As a result, data on the set of social categories of each respondent were obtained (number from 0 to 20).

B) Value component of social identity were revealed by the Sh. Schwartz's Value Questionnaire, which allows determining personal values that can act as motivators on individual goals (Shwartz, 2012).

Classic version of the test consists of two parts. We used only the second part, which gives an understanding of the values of the individual at the moment. In the instructions to the respondent are invited to read the description of the person and to estimate how much this description sounds like him on the classic scale from 1 (not like me) to 6 (exactly like me).

As a result, the degree of expression of values capable of determining individual behavior of each respondent was revealed, which includes such values as: Power, Achievement, Hedonism, Stimulation, Independence, Universalism, Benevolence, Tradition, Conformity, Security.

C) Types of social identity

The type of actualized social identity was determined by the ratio of cognitive and value components. In order to correlate values and cognitive features of social identity we used the method of expert evaluations.

As the result we correlated values with identity types and divided them into two groups of basic and professional identity (Table 1).

Table 1. Values distribution by type of identity

Identity Type	Value	Explanation
Basic	Security	Stability and safety of a person or society
	Conformity	Deterrence of actions and motivations that can harm others and do not meet social expectations
	Traditions	Respect and responsibility for cultural and religious customs and ideas
	Benevolence	Preservation and improvement of well-being of close people
Professional	Self-Direction	Independent actions and thinking
	Stimulation	Excitement and new
	Power	Social status, dominating on other people or resources
	Achievement	Personal success in social standards

Source: own work

When calculating the overall indicator of identity, we used the indicator: $SI=(A1-A2)+(B1-B2)$. Where: SI is the General indicator of the actualized social identity; A1 index of professional identity of cognitive component; A2 the value for the base identity cognitive component; B1 index of professional identity of value component; B2 is an indicator of the basic identity of the value component.

Results

According to the results of calculations in the program, we were able to divide the number of subjects into high ($SI > 5.25$; actualized prevailing professional identity) and low ($SI < 1.25$; actualized predominant basic social identity) groups by quartiles. Thus, the respondents were divided according to the dichotomous scale: 1 – high group, actualized professional identity; 0-low group, actualized basic identity. Two groups of respondents with basic (N=43) and professional (N=31) characteristics were identified.

Normal Probability Plot by One Sample Kolomgorov-Smirnov Test in SPSS Program showed that the distribution of factors is not normal, so the nonparametric Manna-Whitney test was used to test the significance of differences between groups.

Results:

1. The most significant indicators of the employer brand

The results of questionnaire's first block analysis showed that the most significant characteristics for all respondents were: Professional development possibilities (60.2%), Salary (48.9%) and Career opportunities (48.9%).

2. Factor ratings of employer brand indicators

In addition, we supposed that the scales selected for research based on expert opinion could be interconnected and in one way or another relate to several factors. To test this assumption, we used an exploratory factor analysis using the principal components rotation method (Table 2).

Table 2. Factor loading matrix

Characteristics	Factor loading			
	1	2	3	4
Company's size	.836	.119	.001	-0.65
Repute	.813	.016	.053	.146
International Company	.706	.027	-.056	.178
Company's age	.616	.198	.307	-.319
Manager's personality	.046	.773	-0.98	.013
Social responsibility	.015	.705	-0.45	0.54
Attractiveness of goods and services	.175	.683	-0.21	0.34
Salary	-0.04	-.208	.817	.126
Company's stability	.144	-0.30	.777	-0.20
Office proximity	-0.51	.398	.460	-.156
Convenient work schedule	-.423	.411	.449	.084
Professional development possibilities	-0.37	.228	-0.72	.874
Career development opportunities	.248	-.156	.309	.674

Source: own study

Verification of respondents' belonging to the factors by logistic regression is revealed four factors:

- The first factor included scales: Size of the company, Company's repute, International Company, Company's age. This factor we identified as Company's characteristics.
- The second factor combined the Manager's personality, Social responsibility, Attractiveness of goods and services. We have identified this factor as Social Trust, in this way emphasizing the importance of the social communication element, inherent to the very essence of employer branding.
- The third factor included such scales as Salary, Company's stability, Office proximity and Convenient work schedule. This factor was named Conditions and benefits.
- The fourth factor included Professional development possibilities and Career opportunities. We have identified it factor as Professional Development.

3. Intergroup differences in significant indicators of employer brand

Test the significance of the differences in employer brand perception among respondents with the actualized basic and professional social identity showed that there is a lot in common between the groups (Table 3, 4).

Table 3. Rank values of employers brand indicators in the compared groups

Employer brand indicators	Group	Average rank	Rank sum
Company's characteristics	Basic	36.72	1582
	Professional	38.48	1193
Social trust	Basic	44.40	1909
	Professional	27.49	866
Conditions and benefits	Basic	38.51	1656
	Professional	36.10	1119
Professional development	Basic	36.47	1568
	Professional	38.94	1207

Source: own study

Table 4. Statistics verification

Statistics Parameter	Factor 1	Factor 2	Factor 3	Factor 4
Mann-Whitney test	636	370	623	622
Z-score	-.334	-3.248	-.477	-.488
Asymptotic significance (2-sided)	.738	.001	.634	.626

Source: own study

Respondents from the group with actualized basic social identity give much more preference to Social trust and includes such characteristics of the employer brand as Social responsibility, Manager's personality and Attractiveness of goods and services. For a group with actualized professional characteristics this factor is absolutely not significant.

Among the other three important factors differences between groups were not found, which means that Company's characteristics, Conditions and benefits, as well as Professional development are equally important for people from both groups.

Discussion

The obtained results show that people with different actualized identity are largely similar in the perception of the employer's brand. This is in line with the main trends that shape HR policy to attract and retain key staff through, for example, the understanding and involvement of all staff (Barrow, Mosley, 2005). Modern HR-studies confirm that there are problems understanding the specifics of the perception of HR-brand different people. Often prevents properly build the brand and transmit the information about it (Arkova, 2012). Social identity approach makes it possible to see the socio-psychological specifics of the perception of the employer's brand.

The result of the study first of all lies in the identification of employer brand perception similarities of people with different social identity characteristics. Such parameters as Company's characteristics, Conditions and benefits, opportunities for professional development are approximately equally significant for the first and second group. In the result we identified perception differences by groups on the parameter of Social trust. This parameter is much more important for people with basic social identity characteristics that have narrowly localized self-identification.

This can be explained by the fact that this group of people has the value of community, personal life and relationships with other people; they are motivated to protect themselves and others. Coordination with the cognitive component of the identity, revealing of these values gives us the opportunity to place the respondent in a category with a basic identity. In this study, we do not affirm that for people with a professional identity, the parameter of social-trust is not significant at all. It is significant, but much less, than for people with actualized characteristics of basic identity. In addition professional development in the company is significant for both groups. This means that for people with basic identity that focus on personal and family life, it is also important to understand how they can build a career and develop professionally.

Conclusion

Summarizing, we can say that there are the features of employer brand perception of people with different social identity characteristics. The similarities we have revealed refer to parameters that include general characteristics of the company, working conditions and career opportunities. Differences in employer brand perception are associated with basic characteristics of a person's social identity. For these employees, the factor of social trust, responsibility, management, and product is much more significant.

The practical significance of our study lies in the possibility of special employer brand management, its maintenance or changes in existing procedures for its development. Identified groups of employer brand characteristics can help marketing specialists and HR department experts to build and communicate properly the meaning of the employer brand.

We should also note a number of limitations that exist in our work. For example, in the sample of research there were also respondents aged 18 to 30, who in particular are working students or recent graduates. This fact does not make it possible to disseminate the results of our research to as much as possible, but allows us to talk about conclusions about such groups of people, which in most cases are the target audience for employer companies. Another limitation is the work with the Internet questionnaire, which does not imply direct contact between the parties. This can limit the understanding of a specific task by the respondent.

Thus, the problems of identity find a place in the study of human behavior in the organization and its relationship to it, communications inside and outside organizations, role conflicts, problems of adaptation and development. It allows you to take a fresh look at the nature of organizational behavior.

The problems of identity are reflected in studies of employee engagement and commitment, innovation and professional activity of staff. Turning to the phenomenon of social identity helps to understand some important aspects of organizational behavior, as leadership, decision-making, interaction, stress and conflict (Haslam, Ellemers, 2005).

We emphasize that the approach of social identity allows outlining new directions of internal and external HR research in the organization. The research carried out in this direction is of great importance for understanding the effectiveness of the values and principles of management in organizations, creating conditions for the development of the individual, organization and society. This topic can be continued by studying the characteristics of the employer brand perception of employees with a wider range of characteristics of social identity within the organizations of different types. The perspective of the study is to analyze the identity of employers as a factor of employer branding in real organization situation of changing the external and internal conditions.

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CATALYSTS OF INNOVATIVE ENTREPRENEURSHIP ECOSYSTEM: CASE OF HUNGARY

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Abstract: The aim of this paper is to analyze the catalysts of the innovative entrepreneurship ecosystem in Hungary. The paper mainly discusses how innovative entrepreneurship is stimulated through business incubators and startups. The study conducts the research based on the data of the current business incubation and innovation centres in Hungary and analyzes the development of this ecosystem. The result of the research indicates that both public and private organizations are taking a more and more active role in developing the startup ecosystem. Taking into account the current debates on the innovation system and entrepreneurship ecosystem topics, this paper will contribute to the startup ecosystem literature as well. In other words, the paper sheds light on the role of business incubation centres, specifically the role of startups in fostering innovative entrepreneurship ecosystem in Hungary and tries to develop some recommendations for policymakers and to contribute to the relevant literature.

Keywords: business incubators, innovative entrepreneurship, startup ecosystem

Introduction

Rotating the economies toward innovation-driven economic development phase is one of the most debated topics among researchers and policy makers. The European Commission's decision to spend up to 3 % of the European Union's GDP to support private innovation activity until 2020 is a very important indicator of this trend.

After becoming a member of European Union, Hungary and other Central European countries' government policy on innovation activities has changed. Several reforms and decrees have been put forward and get into effect. The aim of this paper is to analyze what are the catalysts of the innovative entrepreneurship ecosystem in Hungary. The paper mainly discusses how innovative entrepreneurship is stimulated through startups. The study conducts the research based on the data of the current business incubation and innovation centers in Hungary. Taking into account the current debates on the innovation system and entrepreneurship ecosystem topics, this paper will contribute to the relevant literature as well. In other words, the paper sheds light on the role of business incubation centers, specifically the role of startups in fostering innovative entrepreneurship ecosystem in Hungary and tries to develop some recommendations for policymakers and to contribute to the relevant literature.

The structure of the paper is of traditional one. Such as, after introduction part brief literature review follows. Then the brief economic situation is described which is followed by current startup ecosystem. Afterward, the potential of Hungary is discussed. As a way recommendation, the implementation of Lean startup strategy is discussed and is followed by the conclusion section that covers recommendations and summary of the paper.

Literature Review

Before opening up the discussion on startup ecosystem, it would be interesting for the readers to clarify the concept of startup. Since startup concept is new to the business world there is not the common definition accepted by all. Therefore, I will mention few very famous definitions in global and in local communities. Steve Blank defines startups as following: "Start-ups are not smaller versions of large companies.....startups operate in "search" mode, seeking a repeatable and profitable business model." (Blank and Dorf, 2012 p 3.)

As for the Entrepreneurship Foundation Hungary 'Startup means a new company with a high growth potential or a project team starting the process of becoming a business and preparing entry to the market.'(Digital Startup Strategy of Hungary, Report of Digital Success Programme, September 2016, p. 22)

Hungarian Professor of Entrepreneurship János Vecsenyi (2002) defines a 'gazelle', the equivalent of a startup, as follows: 'Gazelles are dynamic, fast-growing and particularly vulnerable enterprises. Gazelle companies tend to start small yet think big from the start, i.e. the founding entrepreneurs envisage a large company. The rate of growth of gazelles is twice that of the industry average. That fast growth, however, makes these businesses particularly vulnerable.'

After these definitions, it is worth to define the innovative entrepreneurship concept as well. In this paper, I refer to the definition and illustration by Innovation Policy Platform, developed by the World Bank Group and the Organisation for Economic Co-operation and Development (OECD). As the Figure 1 displays, the innovative entrepreneurship is a concept that brings together the innovative businesses, young and high-growth businesses and SMEs



Figure 1. The module for innovative entrepreneurship

Source: Innovation Policy Platform web page. <https://www.innovationpolicyplatform.org/content/innovative-entrepreneurship>

On the other hand, entrepreneurship ecosystem is closely related to entrepreneurship education as well. Many scholarly papers have researched the relationship between entrepreneurship education and entrepreneurial mindset. Illés et al. (2015) indicated that goals of entrepreneurship education should be organized in a way to foster an entrepreneurial mindset and entrepreneurial capability of students. Nosratabadi et al. (2016) have researched to what extent intellectual capital (that include employees' competence, innovation capital, process capital, internal structure, social capital and external structure) affects the corporate entrepreneurship and found that intellectual capital impacts the corporate entrepreneurship in a positive way. Moreover, the entrepreneurial attitudes and intentions are very crucial to develop entrepreneurship. It was found that entrepreneurial attitudes of Hungarian students are quite high and it not only the case with students studying business, but also among students of agriculture, engineering, human resource and pedagogical studies (Illés et al.2016) There is also a new concept of National Systems of Entrepreneurship which is defined by Acs et al.(2015) as follows: "A National System of Entrepreneurship is the dynamic, institutionally embedded interaction by individuals between entrepreneurial attitudes, abilities, and aspirations, which drives the allocation of resources through the creation and operation of new ventures."

Methodology of the research

The methodology of the research is comprised of the analysis of different cases in Hungarian startup ecosystem. For this purposes, the secondary data is used in order to evaluate the current situation. Additionally, government reports and relevant academic papers were analyzed. For the purpose of literature review, science direct, web of science and google scholar scientific databases were searched using mainly the following keywords: "innovative entrepreneurship", startup ecosystem", catalyst of innovation".

Historical background and current startup ecosystem in Hungary

One of the key players of the Hungarian Innovation ecosystem is the National Research, Development and Innovation Office (NRDIO) of Hungary. Therefore, it is worth to see how National Research, Development and Innovation Office of Hungary evaluates innovation performance of the country. The following points are the excerpt from the 2014 report of National Research, Development and Innovation Office (NRDIO) of Hungary (Peredy, 2014)

- The production of knowledge is not at the satisfactory level as well as the knowledge bases. The number of researchers is decreasing and research bodies are not internationally competitive. Therefore, scientific education potential is weak.
- Current institutions and organizations are weak to facilitate knowledge flow and transfer in a cost-efficient way.
- The problems faced by the business and community sectors engaged in knowledge utilization: big foreign firms bring along up-to-date technology and management knowledge, but the SMEs are not able to keep up the pace with the innovation.

In spite of the aforementioned challenges of Hungarian innovative ecosystem, the potential is growing over time. However, it is impossible to discuss the startup ecosystem without mentioning Peter Zábóji (1943-2015) Hungarian born angel investor and entrepreneur who taught entrepreneurship at INSEAD, France, and CEU Hungary as well. Zaboji has initiated entrepreneurship workshops named the Venture Accelerator Course (VAC), in Budapest, in order to offer a basic education on how to set up a business. Later he launched 'First Monday' events in 2010, where he brought founders, investors, and bright new minds together in an attempt to unify startup community, and provided lessons on startup culture. Along with the other mind-blowing initiative, European Entrepreneurship Foundation was another magnificent project that was a catalyst for the startup ecosystem in Hungary.

Business incubation centers are the main institutions in the innovative entrepreneurship ecosystem. Morován (2015) researched the Hungarian business incubation ecosystem and identified the main features of the ecosystem that are summarized below.

- There are not an accepted common criteria about what an incubator house is
- Lack of central database of the incubators
- Incubators are mainly in service – commerce – industry and technology – research and innovation sector.
- Financial support provided by global and local investors as well as government as a capital investment.

In terms of some difficulties, the followings are the main challenges of business incubation ecosystem in Hungary

- Risk-averse mentality.
- Very few role models and innovation culture.
- Unsatisfactory government support and corporate governance.
- Limited capacity of professional technological, engineering support.
- Emigration of high-skilled labor to the more developed countries (Brain Drain).
- Lack of recognition and public attention for entrepreneurship.

Despite the challenges the government support to the startup ecosystem is increasing regularly. One of the most strategic and recent such programme, the Digital Startup Strategy of Hungary, was adopted in Government Decree 1858/2016 (XII. 27) and was prepared in 2016 by the Prime Minister's Commissioner. The aim of Digital Startup Strategy of Hungary is to build the favorable startup ecosystem in the country not only in some cities.

Overall, the strategy covers the development of the five themes in the startup ecosystem that is described in Figure 2.

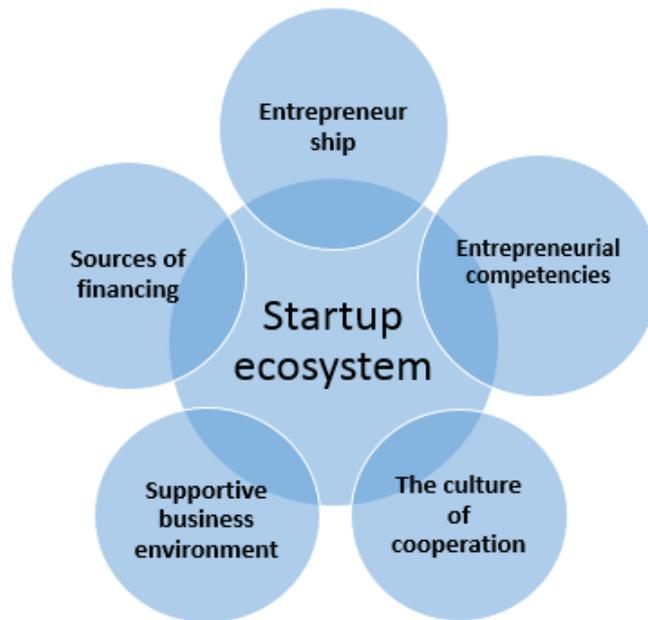


Figure 2. Five development pillars of the startup ecosystem

Source: *Digital Startup Strategy of Hungary, Report of Digital Success Programme, September 2016*

The history of the startup ecosystem establishment in Hungary is the near past. While discussing the potential of the local ecosystem the following features of the Hungarian startup ecosystem should not be taken granted.

- Geographic location of Hungary which is in the center of Europe
- English speaking, safe country with an easygoing people.
- Average living cost of 1.000 USD per month
- Very fast internet and world 3-rd best 4G mobile network
- The 4th in the EU in the number of ICT specialists employed in the business sector
- Success stories of Prezi, LogMeIn, Ustream, Tresorit, Fornetti

Currently, there are several key players in the development of innovation ecosystem in Hungary. Hungarian Association for Innovation, Innostart National Business and Innovation Centre, Association of Industrial Parks, Association of the Hungarian Science and Technology Parks, Association of Business Incubators just to name some.

Since University research is another pillar of the innovation ecosystem it is worth to mention about the current innovative landscape at the universities in Hungary. Followings are the main innovation centers in Hungarian universities.

The Center for Innovation at Eötvös Loránd University manages the university's tasks for the organization of research and is responsible for facilitating the exploitation of the research results produced by the University and bridging the gap between the University and industry (<https://www.elte.hu/en/innovation>).

CEU InnovationsLab- was established in 2016 as a business incubator-accelerator at Central European University to create economic opportunity in Hungary and the Central and Eastern European region by nurturing a culture of entrepreneurship and bridging university and industry. (<https://www.ceu.edu/ceu-innovations-lab>).

INNOTECH Innovation Park Ltd- The INNOTECH Innovation Park of the Budapest University of Technology and Economics was founded in 1987 with a total capital of HUF 97.5 billion (Pálmai, 2004). The INNOTECH Innovation Park is the technology transfer company of the Budapest University of Technology and Economics (BME) with the 62% share of ownership by BME, and 38% owned by the municipality of the 11th district of Budapest. (http://www.innotech.hu/index_en.html).

Discussion

The current development trend in startup ecosystem is a signal of promising future. However, challenges should be addressed properly and in a timely manner. Such as, startups need to keep up with the change in the startup world and adopt new approaches in the formation and management of the startups. To this end, it is worth to have insight into one of the recent approach, lean startup. The lean concept can be perceived as one of recent innovative strategy for an innovative entrepreneurship. This concept has already been applied to the entrepreneurship field under the lean startup concept. The lean startup concept was developed by Eric Ries and can simply be understood as "the application of lean thinking to the process of innovation" as defined by the Eric Ries in his book named Lean Startup. As the author mentions in his book, the lean startup concept is the application of lean manufacturing process of Toyota Production System into the entrepreneurial process in order to find solutions to the various business challenges.

Steve Blank (2013) argues that implementation of the lean startup is enabling to avoid some of the factors startups traditionally used to tackle with. Particularly, it helps to implement faster and cheaper product launch than traditional ways. Therefore, lean helps the startups to become less risky. These features of the lean startup are fueling the development of new the entrepreneurial landscape.

Conclusion

This paper tries to analyze what are the catalysts of the innovative entrepreneurship ecosystem in Hungary. To this end, efforts of both government and private institutions discussed. The research is based on the secondary data available through the public and private reports as well as academic articles.

Taking into account the growing number of business incubation and entrepreneurship centers the innovation system and entrepreneurship ecosystem of Hungary is on the rise. However to speed up the development of the ecosystem and to provide efficient use of financial support the audit of the various projects should be reinforced. Furthermore, lean startup concept should replace the traditional one due to its benefits in financial and managerial standpoint.

Nevertheless, this paper has some limitations as well. First, despite the expansion of startup ecosystem in Hungary less is known about the degree of effectiveness of various startup support programmes. There is a need for the collection and analysis of primary data on what is the most appropriate financing, expansion, and management strategies of startups in Hungary and what are the main factors that lead startups to the failure.

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CONTRIBUTION OF POLISH TECHNICAL UNIVERSITIES TO SUSTAINABLE DEVELOPMENT GOALS BY EDUCATION OF ENGINEERING STAFF

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Abstract: The main subject of this paper is the indirect participation of Polish universities with technical profiles in the process of implementing the concept of sustainable development. This indirect participation consists of providing adequately trained staff, whose education belongs to the statutory responsibilities of each university. Universities perfectly understand the need for training of personnel capable of facing new civilizational challenges, which undoubtedly is one of the most important tasks in the process of creating a sustainable development. Technical universities pay special attention to the skills and competences of the future industrial workforce – which is the relevant topic of this paper. Some examples of the universities which gradually and consistently adjust their study program to the occurring changes are Silesian University of Technology, Wrocław University of Science and Technology, AGH University of Science and Technology and Warsaw University of Technology. This choice is determined by the leading position of these universities among other Polish technical schools. The short review of their course offer facilitates the claim that these universities undertake issues associated with the latest trends in research and the subjects of lectures, tutorials, laboratories, as well as scientific dissertations support this view.

Keywords: sustainable development, university of technology, study program, engineering staff, competences of industrial workforce

Introduction

Sustainable social and economic development is one of the most important challenges of the modern world. The concept was well defined in 1987 in the report of the World Commission on Environment and Development, established four years before by the UN and led by a Norwegian politician Gro Harlem Brundtland. The report defined sustainable development as development in which the needs of the present generation may be met without depriving future generations of the possibility to meet their needs. The development also covers environmental, economic and social aspects (Our Common 1987). The concept, so different from the purely economic approach to sustainable economic growth, has met global approval in a short time. In Poland, the condition of sustainable development was included in Art. 5 of the Constitution of the Republic of Poland of 2 April 1997 as one of the most important rules legally binding and realized by the state. The Act of 27 April 2001, Law on Environmental Protection, includes a provision similar to the one in the Brundtland Commission report, which defines sustainable development as “such social and economic development that entails the process of integrating political, economic and social undertakings, at the same time maintaining the natural balance and continuity of basic natural phenomena, in order to safeguard the possibility to meet basic needs of certain communities or citizens, both of the present generation and future generations” (Dziennik 2001).

The conditions of sustainable development are based on a number of underlying facts, two of which are important to be mentioned here (Our Common 1987):

- Competition on the market has forced considerable scientific and technical progress, reflected in greater efficiency of the use of work force and resources, also of energy and its resources. This has brought about a positive effect for the environment by smaller consumption of natural resources and limiting pollution emissions per production unit.
- Without the awareness of environmental and health hazards, technical progress had to, however, lead to an increase in these hazards. This happened due to introduction of new chemical substances, non-degradable in a natural way, hazardous for human health and the natural environment, due to introduction of new, genetically modified organisms, and due to rapid infrastructure and housing development, not coordinated with the environment.

Both factors mentioned above contain a clear reference to scientific and technical progress, which, especially in the last two decades, has practically revolutionized people's lives in the whole world. There has also been a change in the perception of sustainable development in view of possibilities offered by new technologies and widely understood innovativeness, which has led to a new concept – intelligent development.

In the shortest possible way, intelligent development may be defined as development of economy based on knowledge and innovations. New intelligent solutions with the use of cutting-edge technologies which enable stable development and give a solid background of human existence are undoubtedly a derivative of sustainable development. Such activities include, i.a., the process of city development, civil engineering and transport. Thus, it touches various fields and it is often analysed from various perspectives, e.g., national, regional or local perspectives (Bach 2014, p. 20). The importance of the problem is proved by including intelligent development as a key element of the strategy Europe 2020. In Poland, on 8 January 2014, the Council of Ministers adopted the document "Operational Programme Intelligent Development 2014-2020", which is a Polish implementation of the European Union cohesion policy in the field of increasing innovation and research. The programme concentrates on undertakings connected with development of knowledge-based economy, competitiveness of the science sector and effective business-related institutions, which facilitate intelligent economic development of the country. Three of its four main aims are directly related to research units (Program 2014):

- support for businesses in the field of innovation and research,
- increasing the quality of research and development work,
- increasing internationalization of research and development work.

Undoubtedly, the contribution of the higher education sector to achievement of these aims is of vital importance. It is the universities that prepare future generations of professionals and political and social leaders who will make it possible to implement the rules of sustainable development in all areas of functioning of societies and individuals. These issues and other general problems of sustainable education are discussed in, inter alia, papers written by (Adomssent 2006, Guli 2006 and Jones at al. 2010). It may be even stated that universities, as the main actors of civilization progress, must complete a kind of mission of participation in the process of sustainable and intelligent development (Kalinowska, Batorczak 2017). This is especially true in the case of Polish technical universities, whose range of research covers practically all areas of technology, and the search and implementation of innovative technologies are their priorities.

Analysis of direct participation of technical universities in the Operational Programme Intelligent Development 2014-2020 is not the subject of this paper, however. The main subject, presented in the further part, is indirect contribution of technical universities to achievement of sustainable and intelligent development goals. This indirect contribution means education of well-prepared employees, which is a statutory task of each university. It is important to remember here that academic staff are willing to participate in innovative projects connected with operational programmes and they are quick and flexible to adapt their research potential to occurring needs. On the other hand, the process of launching new fields of study and introducing relevant changes in study programmes takes place quite slowly and often does not follow the needs of the job market. This is caused by frequently arduous formal procedures, but generally by financial constraints, which make it impossible to often change workshop and laboratory equipment. Nevertheless, universities are well aware of the need to educate staff able to face new civilisation challenges and by taking up this task, they indirectly participate in working towards sustainable and intelligent development goals.

There are examples of universities which gradually and consistently adapt their study programmes to occurring changes. These include: Warsaw University of Technology, AGH University of Science and Technology, Wrocław University of Science and Technology, and Silesian University of Technology. The choice of these universities is determined by the leading position they take among Polish technical universities. In the further part of the paper, selected elements of the didactic offer of these units will be discussed, closely connected with the concept of sustainable development.

Elements of sustainable development in study programmes of leading Polish technical universities

As mentioned before, each technical university is "naturally" connected with technological progress, innovativeness and civilisation progress. This is obviously true for all fields of study offered by faculties. However, for several years, some of them have been strongly engaged in the process of sustainable and intelligent development thanks to their specific study offer. This may be investigated on the basis of publicly available study programmes and course syllabi. Below, I shall present selected examples of this type of study offer of universities listed in the introduction. The methodology of the selection was based on two basic premises:

- the courses should be part of the specialisation directly related to sustainable development,
 - the name of the course should have a clear content reference to intelligent and sustainable development.
- Another important criterion was also adopted – the issues of intelligent and sustainable development should be the core of the contents of the course. This assumption required an analysis of lectures, tutorials and laboratory classes in degree programmes. In addition, an analysis of so-called learning outcomes included in course sheets was also conducted.

The first university to be discussed is the Warsaw University of Technology (Politechnika Warszawska) – the oldest and largest Polish technical university. Nineteen faculties and one college offer 41 fields of study in first-cycle full-time degree programmes, 43 fields of study in second-cycle full-time degree programmes, and 18 and 16 fields of study in part-time degree programmes, respectively (www.pw.edu.pl). This wide offer covers almost all disciplines in technical sciences. A few university units pay special attention to education of staff prepared to take up tasks connected with sustainable development engineering. These units include, i.a., the Faculty of Electronics and Information Technology, the Faculty of Building Services, Hydro and Environmental Engineering, the Faculty of Civil Engineering and the Faculty of Transport (www.pw.edu.pl).

Students of the Faculty of Civil Engineering may be fully specialised in sustainable civil engineering already after first-cycle (engineering) degree programmes. Obligatory courses in the specialisation Sustainable Civil Engineering are, i.a. (www.il.pw.edu.pl):

- Sustainable Building Materials,
- Building Design in Line with Sustainable Development,
- Elements of Architecture of Sustainable Development.

Analysis of the content of these lectures shows that students acquire wide and comprehensive knowledge needed to design in the field of civil engineering, taking sustainable development into account. This is also true, to a smaller or greater extent, for other courses in this specialisation, as well as in other fields of study offered by the Faculty.

The Faculty of Building Services, Hydro and Environmental Engineering is especially destined to educate engineers who are aware of civilisation needs and constraints. Among many courses offered in the field of study Environmental Engineering, it is important to mention the content of the lecture "Civilisation Hazards and Sustainable Development", conducted in two parts, in the 6th and 7th semesters of first-cycle degree programmes. The lecture aims at presenting hazards (pressures) to the environment due to anthropogenic (civilisation) human activity. This covers industrial progress in terms of environmental protection, starting from the beginnings of the industrial age (~1860) until the present and in the future until 2050. In view of local, regional and global hazards, greatest attention is paid to fuel combustion for energy and impact of transport on city inhabitants. Making students aware of sustainable development issues in the global, European and national scale and providing them with the ability to evaluate sustainable development are the final aims of the course (www.is.pw.edu.pl).

The mentioned Faculty of Electronics and Information Technology of the Warsaw University of Technology has a special place among faculties involved in the issues of sustainable and intelligent development. Basically, the whole offer of the faculty aims at shaping an engineer of the "civilisation of the future". Courses are run by outstanding specialists, who deal with, e.g., artificial intelligence, Internet of the future, the Internet of Things, nanotechnology, biomedical engineering, data mining, network security, steganography, automatic control and robotics, and multimedia technologies. Students pursue a flexible study programme, which enables access to over 500 courses run at the faculty. Diploma theses are often of interdisciplinary character; for instance, the subject "Intelligent Building" covers a number of functional elements based on various technologies and disciplines (telecommunications, IT, radiotechnology) (www.elka.pw.edu.pl).

Investigation of the degree programmes of the Warsaw University of Technology shows many other examples of courses directly related to education of engineering staff able to take up technological challenges of sustainable and intelligent development of modern civilisation. These are such courses as:

- Environmental Protection and Ecology (Faculty of Chemistry),
- Natural Conditions in Spatial Development Projects (Faculty of Geodesy and Cartography),
- Intelligent Industrial Networks (Faculty of Power and Aeronautical Engineering),
- Innovative Entrepreneurship (Faculty of Transport).

The AGH University of Science and Technology (Akademia Górniczo-Hutnicza) in Cracow offers all types of degree programmes: full-time, part-time, doctoral and postgraduate with a wide education profile adapted to trends arising on the job market. The offer covers 58 fields of study in total, also those connected with mining and metallurgy. These fields of study distinguish AGH among other technical universities and sustainable development is of vital importance in mining and metallurgy. The majority of the 17 faculties run courses directly or indirectly connected with environmental protection and cutting-edge technologies that ensure widely understood safety of the present and future generations. An example may be the Faculty of Mining Surveying and Environmental Engineering, which offers courses such as (www.syllabus.agh.edu.pl):

- Introduction to Sustainable Development for Engineers,
- Introduction to Energy-Efficient Building Design,
- Environment Remediation Technologies,
- Protection against Noise and Vibrations,
- Air Protection,
- Water Management and Protection.

The Wrocław University of Science and Technology (Politechnika Wrocławska) is also one of the largest and best Polish technical universities. 16 faculties offer all types of degree programmes in 51 fields of technical study. A multidisciplinary character of teaching reaches beyond traditional engineering areas and binds technical sciences with mathematical sciences, natural sciences, economics and the humanities. The didactic offer covers more and more courses connected with sustainable and intelligent development. For example, at the Faculty of Civil Engineering, first-cycle (engineering) students have to pass two courses (www.wbliw.pwr.edu.pl):

- Natural Environment of the Human,
- Buildings and Ecology.

The content of these courses covers, i.a., such issues as:

- sustainable development,
- unconventional energy sources,
- energy saving in civil engineering,
- sustainable civil engineering – environmental, economic and social aspects,
- passive and active energy systems.

Another presented technical university – Silesian University of Technology (Politechnika Śląska) in Gliwice is the oldest technical university in Silesia. 15 units (13 faculties, a college and a teaching and research centre) offer at present almost 60 fields of study and 200 specialisations, which cover the whole range of engineering activity. The university also has an active Silesian Centre for Business Ethics and Sustainable Development, which organizes seminars and national and international scientific conferences. The Centre also offers lectures for students of various faculties, mainly about business activity in view of sustainable development. This subject is of course included in many courses offered at the university. The following courses run at the Faculty of Energy and Civil Engineering may be mentioned as examples (www.ise.polst.pl):

- Clean Energy Technologies,
- Low-Emission Techniques in Automotive Engineering,
- Low-Emission Combustion Technologies.

Another example is the Faculty of Transport, which offers, i.a., courses connected with sustainable development, such as:

- Latest Development Trends in Transport and its Environmental Impact,
- Environmental Protection in Transport,
- Ecology in Rail Transport.

Limited length of this paper does not allow a full description of the teaching offer connected with sustainable and intelligent development. The presented examples of selected technical universities enable, however, some analysis and evaluation of the contribution of these universities to the process of education of engineering staff prepared to take up the challenges of another technological revolution.

Conclusion

Contribution of technical higher education to sustainable and intelligent development goals may be investigated from two perspectives: contribution to design and implementation of innovative technological solutions and education of engineering staff prepared for creative work in this field. The latter has been analysed in this paper on the example of the largest Polish technical universities: Warsaw University of Technology, AGH University of Science and Technology, Wrocław University of Science and Technology, and Silesian University of Technology in Gliwice. Even a quick look at their teaching offer allows to state that these universities take up issues connected with the latest research and application trends, which is clear when one analyses the subjects of lectures, tutorials, laboratories and diploma theses. Thus, it confirms the hypothesis stated at the beginning of the paper that the specificity of technical universities naturally binds them with implementation of sustainable and intelligent development of modern civilisation.

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THE POSSIBILITY OF CREATING THE EU BUSINESS IDENTITY

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Abstract: The creation of the EU business identity is very important in the face of strong economic competition in the world. This issue can decide about the success of the entire EU community on the international markets. Unfortunately, not all European entrepreneurs are aware of this. Some of them seem to manifest a kind of 'business separatism'. At the same time, the EU has the ability to change this state of affairs for the better. The fact that the European economic life has a rich business heritage with numerous instances of good collaboration which took place in the past across Europe as a whole can be important in this context. It is important as well that European companies share the feeling of common threats, which is largely connected with globalization. Likewise, the cultural aspects can play a significant role in the business identity creation process in the EU. The purpose of this paper is to draw attention to the issue of the EU business identity along with the difficulties connected with it.

Keywords: business, identity, EU, culture, values, globalization, collaboration

Introduction

The sense of identity is very important in the modern world. It instills the sense of belonging to a group, as well as makes actions meaningful. It is associated with many factors such as the existence of common goals and activities, as well as with similarity of values. The problem of the sense of identity is relatively rarely discussed in the context of economic activity. Economic activity is not just about profit-oriented actions. Undoubtedly, efforts to achieve profits play a very important role in this regard, but it is not only them that count. Economy is, first and foremost, an integral part of social life, and as such decides, along with satisfying the needs, also about the course of interpersonal relations in human communities. The situation with the sense of identity becomes more complicated when a 'double sense of belonging', for instance, business and national one, comes into play. An even more problematic situation arises when a multiple identity, as this in the case of the European Union, is at stake. This requires searching for new solutions when coping with numerous challenges of contemporaneity. (Beck 2016; pp. 140-186)

It is not difficult to state, upon the basis of the available data, that, at present, the European business identity was not achieved. Despite this, there is a significant approximation of economic structures from various countries belonging the European Union within this organization. The EU is referring to the concept of a social importance of the economy as evidenced by various programs of an economic and social nature.

The sense of community is not something simple. It is even more complicated when it is connected the economy, and is frequently associated with the 'fight for profit'. (Dahrendorf, n.d., pp.241-279)

European integration which began after World War II is a fascinating process marked with successes, as well as problem-ridden. At the beginning of it, there was safety and economic collaboration, and a peaceful coexistence of former enemies. These two issues were closely related. Economic development had also a lot to do with security; the understanding of this fact intensified the integration processes and their perceived success.

Therefore, connecting the integration process with economic issues was an important point, initiating the possibility of acting in the area particularly important for the founding countries of European integration movement. However, paradoxically, despite the fact that European integration began with economic agreements and practical collaboration in this field, the European Union did not manage to create its own 'business identity'. The process of creating such an identity will be a serious challenge to the EU in the future. Achieving this goal requires a lot of effort, and its result is not certain. The purpose of this paper is to draw attention to the issue of the EU business identity along with the difficulties connected with it.

Methodology

Gathering and interpreting data was difficult due to the multidisciplinary nature of the issue. It required, apart from `standard techniques` like documentary research method and the analysis of media content, also the use of the comparative historical research method according to Max Weber. (Weber; 2009, pp. 81-167) The last one contained the comparisons of social, political and economic processes taking place over time with a particular emphasis upon the changes taking place in European business organizational structures.

While examining the subject of the EU business identity, it will be important to refer to the literature dealing with the various aspects of European integration. Among the books in this field, the following should be noted: D. Johnson, C. Turner, `European Business`, I.T. Berend

A History of European Integration` and M. Gilbert `European Integration. A Concise History`.

Historical roots

The great military and business activities of European corporations since the 15th century onwards have been a relatively new phenomenon. (Cipolla 1972, pp. 339-373) At that time, Europeans gained a technical advantage over the rest of the world, and used it. As a result, the colonies were possessed by many European countries. At the same time, the economic activity, both of governments and of individual entrepreneurs, also played a major role. During the Technical Revolution, developed European countries dominated the world stage. (Janik 2017, pp. 16-20) By using military force, they built powerful empires and exploited conquered lands. Private entrepreneurs helped build various economic initiatives helpful for governments, and frequently joined each other forming strong capital groups. This way, establishing `the first modern corporations` occurred; a good instance of this could be the Dutch East India Company, which had been very active in the Indian subcontinent, before it was forced to leave it by the East India Company. The activities of this latest organization were not limited only to the economic field, but also pursued political activities, as well as the military ones. The East India Company made history as an unscrupulous organization, which managed to subordinate the Indian Peninsula, and, *per fas et nefas*, became the real ruler of this huge territory. This situation changed only after the Sepoy Mutiny of 1857, which the regular British Crown troops had to suppress. At that time, India came under the direct control of the government in London. (Fischer 1957, pp. 1038-1075)

Back then, Europe became the scene of the development of modern economic and managerial institutions. The great achievement of the Old Continent was also the development of a system of laws that would regulate economic activity both in individual countries, as well as internationally. (Cipolla 1974, pp. 427-594) Simultaneously, all economic doctrines, like the mercantilism, physiocracy, liberalism, communism, neoliberalism or interventionism, were born in Europe. (Cipolla 1976, p. 703; Janik 2017, pp. 25-35)

Due to the fact that the main European countries had colonies, the solutions applied in the metropolitan countries were also used in them. (Eckert 2006, pp. 2-94) This gave international entrepreneurship an international character. Despite these, undoubtedly great, achievements, Europe failed to create a continental unity, or to maintain an initially-privileged position in the global economy. The reason for this was selfish competition. Simultaneously, in Europe, an organizational framework of the economic system (among others, banks and exchange stocks), in which enterprises operated, developed.

Integration process

The general climate for peaceful collaboration among individual European countries was not good after the Second World War. (Dahrendorf 2000, pp. 33-53) However, it became possible to overcome the impasse after the Schuman Declaration, delivered by the foreign minister of France, on May, 9th, 1950, in which he proposed the Federal Republic of Germany to put the management of coal and steel production under the common control of the High Authority. Some of the aspects of the proposal were related both to security and economics. The acceptance of this proposal by the newly-created Federal Republic of Germany initiated the integration process, and the creation of the European Coal and

Steel Community was the 'first step' in this direction. According to Schuman's initiative, six countries: the newly formed Federal Republic of Germany, France, Italy, the Netherlands, Belgium and Luxembourg decided to collaborate with each other in the area of economy. (Marshall 2016, pp. 92-113)

It is worth remembering that, at the beginning of the existence of this organization, its members were the former enemies from the times of the Second World War. It was connected with numerous prejudices which hindered mutual economic collaboration within this community. (Janik 2017, pp. 87-88) Over time, the situation began to change for the better. The reason for this was the growing sense of the existence of common interests, fuelled additionally by the good post-war downturn. Also, the 'capital injection' related to the Marshall Plan had a positive impact on the climate of economic activities. New business opportunities appeared in connection with the Cold War and the Korean conflict (1950-1953). It was possible to feel the 'breeze' of positive emotions, and to look for what 'unites', rather than for what 'divides'. (Gottstein 1992, pp. 155-164) The Treaty of Rome, signed in 1957, responded to the problems of the European Community. As a result, two new organizations: the European Economic Community and the European Atomic Energy Community (Euroatom) were established. (Servan-Schreiber 1967, pp. 115-305)

The creation of the Euroatom provided new impulses for the development of entrepreneurship within this organization. The activities undertaken at that time allowed to strengthen a scientific potential of the laborforce, and raise the level of technical development. During this period, interest in alternative forms of obtaining electricity started to grow. It was frequently associated with a pacifist movement that saw the threat to human security in atomic energy. The 'green movement' emerged from the combination of these two interest groups, which plays an important role in many European countries nowadays. The search for alternatives to carbon and atom's splitting had its impact in the field of economics.

At first modestly, and then, gradually, on a larger scale, the foundations of the so-called 'green economy', which was successful in a number of EU countries, e.g. in Denmark, were laid. (Gehler 2002, pp. 41-95)

Simultaneously with the European Atomic Energy Community, another above-mentioned organization came into existence; it was the European Economic Community (EEC). Its creation meant the acceleration of the integration process in the economic area, especially in trade. The following years brought the further strengthening of the unification process in Europe.

The further progress of the integration process meant new possibilities of action, which deserve a particular attention in this context. The Merger Treaty was signed in 1965, and it combined 3 organizations (ECSC, Euratom and EEC) into a uniform structure. In 1993, the common market was established and 4 'freedoms' were enacted of the movement of goods, services, people and money were enacted; this was a fact of a fundamental importance.

After many years of preparations, euro banknotes and coins were put into use on January 1, 2002. (Berend 2016, pp. 170-173) This event is very important, especially, because the euro gained the status of the one of the most important currencies in the world.

The integration process was crowned with the creation of the European Union with the authorities, the parliament, uniform legal system and a number of institutions regulating the order in this organization. As a result, the fragmented and relatively weak forces of individual European countries were replaced by a powerful institution, which everyone in the world must take seriously.

This is particularly important in the situation of the emergence of new, powerful centers of economic life, which threaten the current status quo in this area. The economic sector, provided with powerful protection on the part of the EU, not only tries to retain influence, but also to succeed in areas where the Old Continent was not very powerful yet, for instance, in the computer sector. Collaboration under the umbrella of the EU institutions is an important step towards creating the business identity of the EU.

It is difficult to forget in this context large sums of money that were transferred under the cohesion policy. They mark not only the possibility of getting out of the civilizational collapse of many EU members which are underdeveloped, but also a significant step towards 'eliminating differences' in various areas of life, which should result in the socio-economic sphere, independently of the creation of a strong European market, in 'civilization community' and in the socio-economic sphere. (Trafiałek 2003, pp. 207-248).

In addition to the European citizenship, it is also social awareness that plays an important role in the shaping of the European business identity. It allows to develop a better system of communication between employers and employees.

The development of the `European business`

Analyzing the `European business` phenomenon more accurately, it can be stated that European business circles did not lose creativity. Enterprises in the European Union countries tap into a large part of the `national economic traditions` of their countries. Through collaboration with other companies operating on the territory of the EU and taking advantage of a number of benefits resulting from its existence, they acquire a `European character`.

An important element of collaboration is forming the feeling of affiliation of European companies towards the Western cultural circle. At the same time, it can be noticed in the framework of the enterprises that there is a lot of openness and acceptance of `elements of foreign cultures`, thanks to which the economic activity is usually deprived of narrowly-understood nationalism. (Zieliński 2014, pp. 393-412) This creates an opportunity for European economic organizations to avoid `negative values` and attitudes against `others` (Murray 2017, pp. 23-36), but rather to build upon what they have in common and what can be useful in relations with economic circles in other parts of the world.

The European Union is a great market, and is one of the world's major powers. Despite numerous challenges, this organization offers an attractive civilizational combination of economic efficiency with a high standard of living, civil liberties and democracy.

In comparison with other parts of the world, the economic life in the EU is less violent and predatory. This applies to both employees and employers. Solid protection of employees' rights, as well as social protection systems, encourage the pursuit of economic activity in a sustainable and long-term manner, without the need to search for `profit at any price`. Well-developed legal systems, which aim to create a uniform law in the EU, is a significant achievement of the Old Continent. In this context, the behaviour of managers who, as a rule, try to avoid open conflicts with competitors using such an instrument as `price wars` or `hostile takeovers`, is important. It is possible to talk about a specific `European business culture`. This does not mean that there are no negative forms of behavior in the EU.

To a large extent, this can be seen by observing the `business elite` of Europe. `Openness` and `cultural diversity acceptance` prevail among them. This is especially important because of the fact that economic elites play a significant role in promoting the EU business. Having well-known names and high level of `public recognition`, they can shape social attitudes in the right direction. This also manifests itself in relation to foreigners; one can see within the EU a lot of commitment of business circles to integrating foreigners, both from within the organization and from outside as well. The activity of companies from the EU countries, like Volkswagen AG, Daimler AG, Groupe Yves Rocher, IKEA, Groupe PSA or the Würth Group, and many others, testify to the resilience of European business and to its originality as well.

Over the years of the integration process, the European business circles gathered a lot of experience in the field of human relationships. Such personal ties form a valuable social capital. Economic life is a sphere of intense interpersonal relationships that if organized appropriately, can become a source of many positive experiences.

It is important to remember those achievements of the integration process which enable companies to carry out effective activities in Europe. An important role in this context was played by a very good broadly developed infrastructure, extending from transportation routes, through banking systems, various types of offices and including a dense network of research institutions. The `infrastructure`, thus understood, was largely unified during the integration process. (Johnson, Turner 2016, pp. 23-39)

The European Union also achieved a lot in the field of environmental protection, respect for human rights and educational standards. A significant part of the possibilities of creating business identity in the EU is associated with the sphere of political life. An appropriate policy can animate different projects and set the pace of their implementation. (Gilbert;2012; pp. 157-188)

The capital groups of various European countries and lobby groups have a significant role here. Despite the undoubted imperfections of this state of affairs, the existence of coordination possibilities is important. An instance of a successful political and business initiative is `Airbus`, which was initiated by the main leaders of the European Communities as a consortium which was to compete with American companies.

Attention should be paid to the role of symbolism in the search for a European identity. Before Airbus, the British-French supersonic passenger airplane with a turbojet drive – Concorde – gained recognition among airline customers despite some technical shortcomings.

Europe experienced a serious economic crisis that seriously undermined the sense of solidarity within the EU. Nevertheless, it managed to maintain unity, which allows us to cherish the hope of the possibility of further progress.

What can be done in order to improve the situation?

Of course, not everything functions well in the EU. In the economic life of our continent, there is a lot of hypocrisy; for instance, there are companies that use `nice slogans` about the need to cultivate `European value` and respect workers' rights, but, in practice, they do not carry anything of what they pledge in their announcements. A similar situation can be seen in this regard in the case of environmental protection and the infamous `greenwashing`.

The economies of particular countries participating in European integration process have a great potential and develop in attractive directions; the problem is, however, that these directions are frequently different, which makes unification difficult. There is a lack of animation of economic life in the EU under the auspices of this `European business community`. The situation prevailing now resembles the `free struggle` of interest groups that do not care about the fate of their competitors while they are pursuing their own interests, and the phrases about `unity` and `solidarity` prevail only during various celebrations, without attaching any importance to them in daily life.

The European Union has well-developed business organizations, but they lack coordination to a large extent. The analysis of the problem of the EU business identity allows to propose the following steps in order to accelerate it:

- improve the technical possibilities of business collaboration in the EU,
- improve the intellectual possibilities of collaboration / the potential of European staff,
- connect the operation of scientific centers to the needs of business practice in the EU, - set up think tanks, like the `Club of Rome`, - build `business collaboration groups`,
- remove greenwashing practices and similar activities that hinder collaboration,
- support the creation of companies associated with the `European spirit`,
- the increased intensity of considering environmental issues in the field of economic activity,
- improve the intensity of the social inclusion,
- collect experience with various types of property and play the role of `animators` in the world – e.g. cooperatives,
- intensive development of science and education, - create business information base, - make specialization – for instance, in the field of ecology, clean energy or medical sector,
- the development of the opportunities of collaboration with other companies – the stronger they are all, the stronger the business identification of the European Union, - encouraging business organization to engage in the implementation of European programs.

It is extremely important for the development of the EU's sense of business identity to maintain a high level of consciousness of the citizens. It allows one to control business operations, and to prevent its degeneracy. One can prevent this way negative phenomena that are affecting the economy, including various attempts to commit `abuses`, such as `greenwashing`. A big field for controlling is the foreign activity of European corporations whose activities were criticized in the media in the past, among other things, for not respecting the principles of environmental protection or for doing business with dictators. This would have a positive influence upon the business identity in Europe.

Discussion

The European Union is much more than just an economic community. Nevertheless, from the very beginning, this organization showed great commitment in the economic field. This is not surprising given a huge amount of tasks and challenges that this organization has to deal with. The European Union donated huge sums to the cohesion policy, thanks to which the standard of living in different member states of this organization became more similar. The European Union managed to, to a large extent, connect economic issues with a social policy typical for welfare state. It opens the possibility

of effectively combating poverty and social marginalization. The business sphere was also involved in pro-social activities, and, although the situation in this area is not yet optimal, significant successes were achieved here.

At the same time, the EU business achieved, for the first time in history, the possibility of acting and developing on a unified organizational area, with established uniform law, common currency, good financial services and developed road infrastructure, not to mention many other conveniences. This provides favourable conditions for shaping the sense of identity of business circles of the European Union. It is also favoured by the joint activities undertaken by entrepreneurs from the EU, which are frequently supported by the authorities of this organization.

Despite an overall positive balance of the EU achievements, not all of the plans were successfully implemented by this organization; the failed creation of the European Armed Forces could be an instance. Also, in the area of business, not all seems to be perfect as it is evidenced by various scandals that from time to time reach the public.

Notwithstanding this, the European Union is a significant force in the global economy, which is especially important at the time of globalization when new commercial powers are being created, and the EU must constantly fight to maintain its own privileged position in the global trade. Shrinking of the outdated model of national economies during the global competition of powerful economic entities must lead to a catastrophe. In this context, efforts to create a sense of belonging to this organization among the EU businessmen can only be helpful.

Conclusion

The analysis of the results of the conducted research made it possible state that the possibilities of development of the European business community are significant. In principle, considering the situation in the world, this option seems to be the most logical one. It is only that that can provide the inhabitants of the Old Continent with sufficient `internal cohesion`. At the same time, it should be noted that such a business community is something much more than just a `brand`, as it is a sense of the same values, goals and codes of conduct. Economic life is not only `goods and numbers`, but it is based, above all, upon the reciprocity of social interactions. Economic activities are largely social in their nature. Because of this, the process of European business identity creating has a great impact on the European management of different levels. In practice of work, managers are confronted with `diversity`, and should learn to accept it, as well as to treat it as a valuable source of inspiration.

Awareness of common possibilities motivates not only to be `side by side` together, but also to collaborate closely with one another, as well as strengthens the conviction that standing together as one makes the EU a real force that counts in the world.

The collaboration within the EU plays an important role in the process of globalization, which also made a significant level of mutual collaboration necessary. The sense of unity in the EU in the economic aspect may have an impact on the current uncertainty in international relations, connected with the unstable attitude of US President Donald Trump towards former trade agreements and the existence of the EU as such. Also, the decisions of the D. Trump administration to increase tariffs on steel made many EU enterprises aware of the importance of the unity to defend their interests. Maybe, it would be also time to follow the old concept of the `justice economy` (for instance, `fair trade`), as it would be compatible with the EU values. It should be remembered that the main European economy thinkers, like A. Smith, D. Ricardo or J.M. Keynes, albeit in a different way, emphasized the necessity of maintaining proportions and avoiding injustice in the world's trade. This would add additional humanistic values to the `EU business identity`.

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OPPORTUNITIES FOR THE USE OF GOOGLE ANALYTICS FOR MANAGEMENT OF RELATIONS WITH PROSUMERS

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Abstract: Prosumption is the process of allowing users to co-produce products, while the people involved in the process are termed prosumers. Producers and designers of goods and services who realize the idea of prosumption are willing to use the solutions and opportunities offered by information and communication technologies (ICT). Google Analytics is one of the key internet services which are aimed to examine behaviours of Internet users. The purpose of the paper was to indicate the opportunities and areas of potential use of analytical solutions offered by Google to start relations with prosumers. The first section of the paper explains the idea of building relations with prosumers. The subsequent section presents the most important characteristics of Google Analytics. The third section focuses on the areas of the use of these solutions in the prosumer processes.

Keywords: prosumption, prosumer, Google Analytics

Introduction

Producers of goods and services noticed the potential of consumers and users many years ago. It is people who use products that represent the inexhaustible source of inspirations and ideas. Consumers know best what they need and which problems they are challenged with every day using a specific product of service.

Producers and designers of goods and services who realize the idea of prosumption are willing to use the solutions and opportunities offered by information and communication technologies (ICT). With the development of the Web 2.0 and Web 3.0 concepts and intensive use of social media, ICT technologies have become an ideal platform for starting consumer-producer relations.

One of the key internet services which are aimed to examine behaviours of Internet users is Google Analytics. It is a free tool offered by Google, with its task being analysis of website traffic. The aim of the paper was to indicate the opportunities and areas of potential use of analytical solutions offered by Google to start relations with prosumers. This is the next study of the authors, focused on modern solutions of IT technologies in prosumer processes. The first part of the paper explains the idea of building relations with prosumers. Further part presents the most important characteristics of Google Analytics. The third part concerns the areas of the use of these solutions in prosumer processes

Relationships with prosumers

The concept of a prosumer was introduced by Alvin Toffler (1980) as a blend of producer and consumer. He created a future type of consumer becoming involved in the creation of products in a way that they could be made to individual specification.

Tapscott and Williams (2006) further popularized prosumption as nothing less than the core activity of a new economy – one in which peer-to-peer networking and collaboration are facilitating the construction of an economic system that is innovative, creative and universally beneficial. They wrote: “Customers get more of what they want, and companies get free R&D” and as the confirmation they presented case studies of: Second Life, Lego Mindstorms, Music Mashups, Creative Commons, YouTube and Slashdot.

Enterprises, more and more frequently, perceive their client not only in the role of a purchaser but, by establishing cooperation with the client, strengthening the relationship with them, they want the client to appear in the following roles (Jelonek, Wysłocka 2015):

- a promoter of products, services or a brand,
- an expert, specialist or consultant,
- a person testing new products and services,
- an innovator.

One manifestation of prosumer behaviour is describing and commenting on products in discussion boards and forums and also in their own specialized blogs. Prosumers are also a group of potential customers who, before purchasing goods in either conventional or on-line shops, seek other customers' opinions about the products. Active customers participate in contests and promotions when they often take part in the process of co-creation of a new product and they can also express their own opinion about products.

Pini (2009) showed that the role of consultant could be acted by customers in the form of a direct relationship with the firm or by supporting and assisting other customers or users in using or accessing products or services in ways that might not be under the direct control of the company (i.e. blogs; expert web sites; etc.). By promoting the brand or product in different contexts consumers help in promoting company's initiatives towards the market.

New paradigms, such as Open Innovation and Web 2.0 promote a more proactive role of customers in the innovation area. Companies should see customers as co-creators of products and hence value. Products should be designed in ways that allow users to design all by themselves, remix, and share (Jelonek 2015).

Awa and Eze (2010) reviewed methods of customer collaboration and proposed the model designer – user collaboration. Traditional approach displayed the model of “design for customer”, proposed model demonstrates an extension of “design with and design by user”.

More and more frequently users of product and service are innovation's co-authors. This fact found a reflection in a concept of innovation co-created by a user defined as user-driven innovation – UDI (De Moor et. al, 2010). A user-driven innovation process is based on an understanding of true user needs and a more systematic involvement of users (Wise and Hogenhaven 2008).

Profound changes in the interactions between consumers and enterprises are being observed, not only during creation of innovations but also in the broadly understood co-creation of values. Jelonek (2013) based on the results of her own research showed that:

1. Model where recipients of the value created by the customer are other customers (91% of respondents) is predominant among prosumers then model where a product or a service is co-created by the customer who is their purchaser (30% of respondents).
2. The outlays incurred by customers include:
 - interaction and communication between prosumers (94% of respondents),
 - sharing and exchange of prosumers' own resources (74% of respondents),
 - prosumers' own activities (16% of respondents).

If we consider interaction and communication between prosumers they most often use „know-what“ knowledge (94% of respondents), „know-how“ knowledge (18% of respondents) and „know-who“ knowledge (3% of respondents).

3. The most important reasons that limit the cooperation of prosumers with other entities are lack of the need for cooperation and co-creating value (69% of respondents), lack of time (63% of respondents) and lack of trust to other entities (60% of respondents).

In conclusion, incorporation of prosumption in the process of co-creating value to the enterprise and customers should be viewed as an essential activity, and is gaining in strategic importance. The enterprises that consider consumers as partners and attempt to meet their expectations are able to achieve the advantage in the market.

Characteristics of Google Analytics

Google services, with particular focus on Google search engine, have a dominant position compared to solutions offered by other suppliers. This position seems not to be threatened despite many activities and initiatives of e.g. Microsoft, which promotes its own solution, Bing. Domination of Google is also unchanged despite warning about constant surveillance of Internet users and collecting information while web users are not sufficiently informed about this fact. The expected level is also not achieved by alternative search engines, such as DuckDuckGo, which offer much greater level of anonymity.

Statistics show that over 90% of search operations in the global internet occurs using Google. The remaining 10% is the results of search by means of Bing, Yahoo, Baidu etc (www1 2018). Popularity of Google solutions also impacted on the fact that positioning of WWW services also occurs through optimization in this engine. Through paid advertisements (Google Adwords), Google is also a dominant area of advertising.

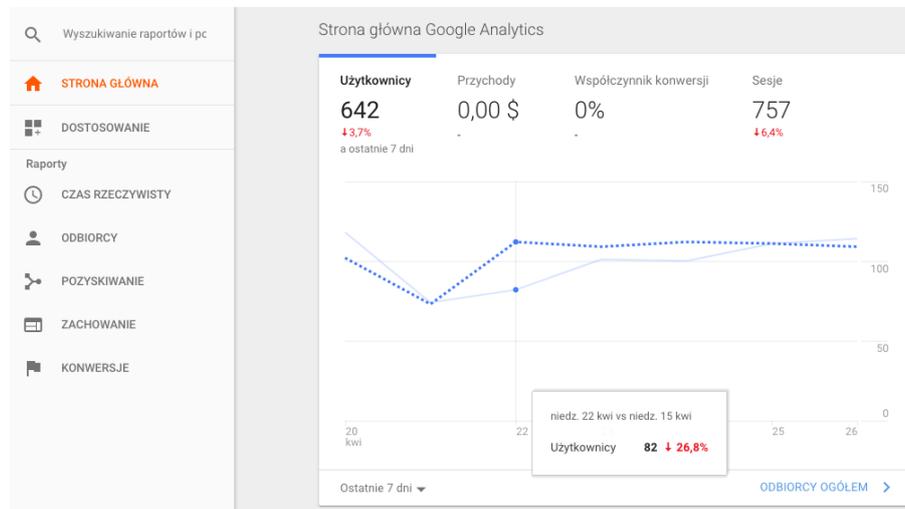


Figure 1. Home page of Google Analytics

Source: Author's own study based on analytics.google.com

In order to measure effectiveness of positioning, analysis of the number of impressions and determine the efficiency of online campaigns, Google provides access to Google Analytics, which allows for obtaining necessary information, data and statistics. The service is free. The basic configuration consists in generation of the tracking code and its implementation on the website. It should be noted that certain web engines (e.g. WordPress, Joomla) have in-built tracking option of Google Analytics. Example Google Analytics webpage is presented in Figure 1.

The standard Google Analytics home page displays information about the number of visitors in the period analysed by the administrator and the number of sessions (individual users can generate more than one session). The system provides automated information about trends, comparing the traffic on the website with previous analogous period. Furthermore, real time reports are also displayed, relating to current number of the Internet users visiting the website.

Google Analytics also allows for automatic analysis of:

- the method to acquire users (organic search, direct, referral, social media),
- degree of maintaining users on the website,
- activity of users according to the time of the day,
- the session with geographical division in to countries,
- types of devices mostly used for displaying the website (desktop, mobile, tablet),
- most frequently visited subpages of the website

Furthermore the users can use other reports which allow for a deeper analysis of users and their behaviours. Adequate use of reports allows for determination of characteristics of users, their age, gender, interests, behaviours, technologies used etc.

From the standpoint of relation with prosumers, an important and interesting aspect is the option of tracking the pathways of visiting the website. This allows administrators to find which subpages are visited the most often, in which order and how long the Internet users spend using them. An example of such a report is presented in Figure 2.



Figure 2. Behavior flow on sample WWW

Source: Author's own study based on analytics.google.com

Apart from standard analyses, Google Analytics offers customization and creation of user's own, multifaceted reports.

A very important element of Google Analytics is opportunity to compute conversions. The conversion rate provides information about the percentage of entries to the specific website which was a concrete and expected activity of the user, who achieved his or her aim. This activity means purchase, payment, leaving a contact data, collecting the survey questionnaire, leaving a comment etc.

Areas of use of Google Analytics in relations with prosumers

Opportunities and functions of Google Analytics can be used to build relations with consumers and users who consciously or unconsciously become the prosumers. This means a practical use of the idea of a consultant, promoter and innovator. Google Analytics functions can be used in the area of prosumer processes in two manners:

1. Consumer/user is a passive prosumer: this means that users' behaviours are tracked and recorded; the obtained data are further analysed; the conclusions allow for the development of a prosumer profile, familiarization of his or her opinions and preferences - this approach is consistent with the role of promoter;

2. Consumer/user is an active prosumer: in this case, the enterprise is not limited merely to tracking and recording behaviours but it encourages the Internet user to actively share their observations, comments, emotions and suggestions; activity of prosumer can be varied in forms, e.g.:

- configuration and parameterization of a product/service,
- making comments,
- leaving an opinion/relation,
- suggestions of changes in the product/service,
- suggestions of changes in the method to perform logistics, distribution and payment processes etc.,
- opportunity to modify a product/service during design, production and use,
- providing support and counselling to users/consumers,
- alternative methods of using a product/service.

Situation when consumer becomes a passive/active user is similar to the role of a consultant and innovator in prosumer processes.

In order to analyse the data that impact on prosumer processes, it is necessary to meet two principal conditions:

1. Producer, distributor and seller need to have Google Analytics implemented on their website. This means implementation of the tracking code for the website template.
2. It is necessary to filter traffic connected with prosumer processes, from a standard traffic on the website, which is generated during transactions, familiarizing with the products etc.,

Separation of the standard traffic in the website is not easy and there are no unequivocal methods to fulfil this condition. A huge role in this area is played by cooperation and coordination of analysts responsible for collecting data, production managers and programmers of websites. Available programming tools, constant development of ICT solutions and resourcefulness of the employees involved in prosumer processes can bring very interesting results in this area.

The example solutions in this field include:

- creation of subpages in the area of websites, unequivocally connected with activities of prosumers,
- analysis of data and behaviours on website/configuration subpages,
- analysis of impressions and sources of information about subpages with tips and instructions,
- analysis of opinions about the product,
- analysis of queries to consultants,
- implementation of the technology of virtual consultants, analysis of the questions asked,
- creation of the website with tips, FAQ, systems of questions and replies,
- analysis of sources of origin of the traffic on the website with analysis of keywords,
- use of landing pages, which are connected with concrete promotional activities for the specific product,
- analysis of the conversion rate for specific activities of prosumers, e.g. replying to the question, tip, solving a problem, suggestion etc.

A general principle used during analysis of the data using Google Analytics is to build websites with a system of subpages which concern a specific topic or a problem. The problems discussed in subpages connected with activity of prosumers have to be uniform and consistent.

The most frequently used tool in relation with prosumers is configuration pages. The users have options to set product parameters, colour, method of delivery etc. These solutions allow for visualization of the product. The use of Google Analytics allows for obtaining a more detailed data about e.g. how the potential customers reached the configurator or how they decided to start the configuration process, how long they visited the website etc. The situations in which potential customers close the website too fast or do not start product configuration may suggest that the website is not designed correctly or optimally.

In general, all producers and sellers are obliged to have instruction manuals, technical data and necessary tips for consumers published on their websites. Google Analytics allow for the measurement of the frequency of visits on such subpages, sources of origins of the traffic and identification of keywords which were used by Internet users to get to the instruction/tip. In the cases of traffic coming from Internet discussion boards with tips or keywords containing such phrases as "does not work", "problem", "how to connect", the producer should respond and introduce necessary corrections or modifications in the product. Such situations result from improper wordings or mistakes in manuals.

Google Analytics solutions also allow for a relatively easy analysis of the data from opinions about the product and questions to consultants. The enterprises should take into consideration the opportunities for implementation of technologies of virtual consultants since they allow for automatic analysis of contents. It is possible to use other technologies in this area e.g. sentiment analysis or semantic technology in order to automatically examine the sentiment of the statement and providing the answer (Turek 2017).

Another interesting solution is the use of subpages with tips such as FAQ (Frequently Asked Questions) and systems of questions and answers. The questions and tips can be managed by producer employees, but Internet users can also be involved in the discussion. Google Analytics allow for the analysis of questions and answers. This indicates which products the queries concern the most and which problems are discussed.

Landing page is a solution used in the online marketing. This is the so-called product page, to which Internet users get through concrete activities of the enterprise, mostly advertisements and paid promotion campaigns. Landing page allows for the measurement of efficiency of such activities. This solution can be relatively easily translated into prosumption processes. A landing page can be a FAQ subpage, configuration page or subpage with opinions. Google Analytics allows for a measurement of the effectiveness of such a website and enterprise activities aimed at involvement of Internet users in active creation and improvement of the product.

Another function of Google Analytics used in the Internet marketing and e-commerce which can be adapted in prosumer processes is conversion rate. This is the rate that determines the relationship between visits on the product website and the number of transactions. In the case of prosumption, the aim of conversion is to encourage a specific activity from a user on the website, indicate drawbacks, suggestions of modifications, innovative ideas etc. The conversion rate can therefore provide information about the involvement of the prosumer in the idea of being a consultant or innovator.

Conclusion

Building relations with prosumers requires using several various solutions and IT technologies. Internet users share their observations and leave much information and many data which can be used. Properly designed processes of prosumption allow for collecting, analysis and processing of these data and information. The obtained results represent inspiration for implementation of changes, modification and improvements. The examples of resources that can be used in prosumption processes can be websites which encourage sharing knowledge, tips and suggestions such as Comarch community (<https://spolecznosc.comarch.pl>). The portal is dedicated to users, customers and partners in the area of ERP Comarch systems. Each registered users can ask the question or leave a comment. Answers can be expected from website administrators or other system users. Based on the topics discussed, Comarch develops and facilitates its solutions.

Another relatively specific website is ikeahackers.net. The website contains plethora of ideas for alternative use of furniture purchased in IKEA stores. The website is divided into three basic parts: hacks, ideas and submit hack. Internet users can familiarize with the methods to redesign furniture, use innovative concepts of using the furniture or can share their own ideas. A number of similar websites can be given as an example of similar tendencies in the IT sector, communication etc.

The paper presented selected areas of using Google Analytics services which can be used to build relations with prosumers in the website. These relations can be supported by other solutions, such as sentiment analysis, semantic technology or Facebook Pixel. In practice, the best results are obtained using several technologies at the same time.

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RELATION BETWEEN BUSINESS PROCESS MATURITY AND PERFORMANCE - SYSTEMATIC LITERATURE REVIEW

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Abstract: The relation between the general concept of maturity and performance have been widely studied, albeit the nature of the relation between process maturity in particular and performance remains not fully explored according to scholars. Therefore, this paper aims at presenting the results of a systematic literary review on the relation between business process maturity and performance in order to address the identified research gap. The presented study involved systematic literary review of papers focusing on empirical research and those that analysed the BPM (Business Process Management) and BPO (Business Process Orientation) maturity. The results outline the content of 10 identified papers and present conclusions on further research in the area of the influence of process maturity on performance.

Keywords: process maturity, business process management, business process orientation, performance, relation, systematic literary review

Introduction

Process maturity is defined as „the degree of explicit definition, management, measurement, control and effectiveness a process has” (Humphrey 1987, p. 1-13). Worldwide research conducted among different types of companies (Wolf, Harmon 2014, p. 5; Wolf, Harmon 2016, p. 7) prove that organisations are increasingly becoming process oriented and the maturity of their processes and organisation as a whole is systematically improving and treated as a source of competitive advantage.

Process maturity models have emerged as a measure to evaluate the capabilities of an organization in a certain discipline and in a number of studies maturity is defined as the ability to systematically provide better business results, thus links with process and/or organisational performance (Rosemann, De Bruin 2005, p. 2; Hammer 2007, pp. 111-123).

Different authors indicates that higher process maturity leads to better organisational performance, which is observed through: better control of results, improved forecasting of goals, greater effectiveness in reaching defined targets and improved managers’ abilities to propose new and higher targets for performance (Lockamy, McCormack 2004, pp. 272-278; McCormack 2007, p. 52; Poirier, Quinn 2004, pp. 24-31).

The relation between maturity and performance have been widely studied (Dooley, Subra, Anderson 2001, pp. 23-29; Lockamy, McCormack 2004, pp. 272-278; Batenburg, Versendaal 2008, pp. 563-574; Reiner, Hofmann 2006, pp. 5065-5087; McCormack et al. 2009, pp. 792-815), however the nature of relation of process maturity and performance remains not fully explored (Tarhan, Turetken, Reijers 2015, pp. 1-16). Therefore this paper aims at presenting the results of a systematic literature review on the relation between business process maturity and performance in order to address the identified research gap.

Research methodology

The literature study covered the contents of the leading databases containing scientific publications, including conference articles. In particular the following sources were analysed (in alphabetical order): Emerald, ScienceDirect, Scopus, SpringerLink, Web of Science and Wiley. In order to improve the research process, the EBSCO Discovery Service tool was used, which enables search within the above mentioned databases with a common interface. The analysed period covered years 2002-2017. Database fields for which the search queries were applied included: title and keywords, and wherever possible (the database allowed this type of search) also abstract.

The following search terms were used:

- ("process maturity" OR "process capability" OR "process orientation maturity" OR "process orientation capability" OR "BPM maturity" OR "BPM capability" OR "BPO maturity" OR "BPO capability ") AND (" performance "OR" performance measurement ") AND (" research "OR" results "OR" survey ");
- ("process" AND "maturity" OR "capability") AND ("performance" OR "performance measurement") AND ("research" OR "results" OR "survey").

In total 63 papers were identified, however an in-depth analysis was introduced afterwards. It focused only on papers where original empirical research results were presented and only those that analysed the BPM (Business Process Management) and BPO (Business Process Orientation) maturity¹⁷ in relation with performance. Papers focusing on other types of maturity or focusing on maturity of single processes were excluded from the study. As a result the final research sample consisted of 9 English language articles by foreign authors and 1 Polish language publication by Polish authors. The analysed publication covered the following items (in chronological order):

- Škrinjar R., Bosilj-Vukšić V., Indihar-Štemberger M. (2008), The impact of business process orientation on financial and non-financial performance, *Business Process Management Journal*, 5, 14, pp. 738-754.
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For the main part of the study the analysis of the identified publication has been conducted in order to determine the characteristics present in all papers, that were used for qualitative description of the described research. Those characteristics included the following aspects:

1. Characteristic of publication and research: purpose, research methods used, characteristics of the research sample.
2. Model, constructs, variables and method of measuring process maturity and performance: process maturity model used in the study, method of process maturity assessment, performance measurement model used in the study, method of performance evaluation.
3. Results / conclusions: the nature of relationship between process maturity and performance, type of dependence, analytical methods used to determine the dependence.
4. Limitations: defined by the author / authors directly in the publication, defined upon the analysis of the content of publication or performed research.

¹⁷ For explanation of the nature of the BPM vs BPO maturity please refer to e.g.: Van Looy, De Backer, Poels 2010, p. 7-16; Van Looy, Backer, Poels 2014, p. 188-224; Houy, Fettke, Loos 2010, p. 619-661; Röglinger, Pöppelbuß, Becker 2012, p.328-346.

Discussion on systematic literature review results

On the basis of a systematic review of literature, the following conclusions can be formulated in relation to the analysed publications:

1. All authors of the publication aimed at determining the relationship between process maturity and achieved organisational or processes results. While process maturity usually referred to a specific model, the performance varied significantly in terms of the covered scope and detailed characteristics measured (e.g. quantitative: financial and non-financial metrics, sets of measures or a single measure; qualitative: success of the processes or benefits of achieving process maturity).
2. All research were based on quantitative methods (survey).
3. The dominant research samples reached within the surveys covered over 201 units (3 publications) or between 101 and 200 (5 publications). Smaller research samples (below 101 units) could be observed in the case of 2 publications. The authors most often (8 cases) used non-random sampling (intentional, consecutive, convenient, etc.), however in case of 2 publications, the selection was described as random.
4. The models used for determining the level of process maturity of surveyed organisation included author's own model (3 publications), McCormack Maturity Model (3 publications; McCormack 2007, p. 61-73), BPMM-OMG (3 publications; OMG 2009, p. 8), CMMI (1 publication, SEI 2010, p. 1-21).
6. In case of 7 publications, constructs (statistically analysable) covering various aspects of process maturity were used, while in 3 publications the assessment of process maturity was based on a subjective assessment based solely on the scale adapted from a maturity model.
7. The authors of the publications used different models for performance measurement: in 6 cases, non-financial and financial indicators were used (of which only 2 publications related to financial ratios calculated on the basis of real figures and were not based on opinions); in 3 cases authors used only non-financial measures and in 1 case a single financial indicators was used as a performance measurement tool.
8. The performance evaluation was based largely on constructs containing variables (6 publications) or a set of variables not grouped into research constructs (4 publications): (a) constructs describing non-financial results included: relationships with suppliers, employee results, customer results, internal results, logical results, etc.; (b) constructs describing process implementation parameters included: efficiency, traceability, effectiveness, response time, customer focus, continuous improvement, quality, measurability, employee satisfaction, competitive advantage, flexibility; (c) in case of publications that included financial results, the following items were taken into account: ROA, value added per employee, profit per employee and process costs.
9. Respondents' opinions were the dominant method of assessing the results, both in the case of financial and non-financial results (7 publications). On the other hand, in case of 3 publications, the assessment of financial results was based on actual values.
10. In all publications, the relationship between process maturity and results was confirmed in whole or in part: (a) if the financial results were measured through opinions, the relationship between the maturity of the results was confirmed in each case, the same applies to non-financial results – the dependence was positive in all cases; (b) in 2 out of 3 publications in which the assessment of financial results was based on actual values, the relationship between process maturity and financial results was not confirmed and the dependence was confirmed only in one case (Radosavljevic 2014, pp. 599-614); (c) in three cases the results were inconclusive (some relations were considered as significant and some as non-significant): Tang, Pee, Iijima 2013, pp. 650-660; Dijkman, Lammers, de Jong 2016, pp. 717-734 and Gębczyńska, Jagodziński 2017, pp. 147-157.
11. The analytical methods used in the papers covered: SEM – structural equation modelling (5 cases), ANOVA (2 cases), linear regression (2 cases) and chi-square test (1 case).
12. Limitations of the conducted research were formulated by their authors in 8 cases out of 10. The indicated restrictions focused on: (a) lack of time lag between the assessment of process maturity and the assessment of financial results; (b) relying on the opinions of individual informants, while it could be more appropriate to investigate process maturity on the basis of several key staff opinions involved in process management in the studied companies; (c) lack of representativeness of the research sample and low return rates of the conducted studies.

13. The second group of restrictions (formulated on the basis of a detailed analysis of the content of the publication) mainly covered issues related to limited scope of the performance measurement characteristics, without proper recognition of other financial and non-financial indicators.

Conclusion

After a detailed analysis of the results of a systematic review of the literature, it is possible to formulate general conclusions regarding the research on the relation between process maturity and performance. Process maturity usually referred to a specific model and thus the approach could be described as generic, whereas in case of performance the authors used very different approaches, however none of them could be described as comprehensive. The results were considered from different points of view, such as:

- a set of financial and / or non-financial indicators,
- a single financial indicator,
- evaluation of the success of the implemented processes,
- benefits of achieving process maturity,
- effects of innovative activities.

On this basis, it can be concluded that there is a large discrepancy in the approach to defining and determining results in process maturity related studies. This conclusion can be justified with works of other authors on the multidimensionality of the performance concept (Chenhall, Langfield-Smith 2007, pp. 266-282). At the same time it can be suggested that at the research level, different performance dimensions should be taken into account and a comprehensive approach and research tool should be used to investigate the existing relations.

Furthermore it has to be stated that although most research methodologies of the analysed studies were based on respondents' opinions as performance measures, such approach has obvious limitations, such as representing the performance of the company from a limited point of view (due to single informants involved in the study). In this situation an approach where metrics based on respondents' opinions (subjective, both financial and non-financial) are supported with financial indicators (objective, calculated on the basis of real figures) could be indicated as the most appropriate, as it would incorporate two-prone approach of subjective and objective performance evaluation.

Finally the main limitation of the analysed studies was the lack of the time lag between the process maturity and performance evaluation, which consequently led to limited possibility of observing the effects of rising process maturity on results (if both studies were conducted in the same period, as in the examined cases). A solution that could be implemented in this situation is either a panel type of research or use of secondary financial data. The first solution would allow to observe the changes in process maturity and organisational results over periods of time, however such cases are extremely rare and almost non-existent in management studies (due to the difficulties in conducting this type of research). The second proposal would effect in retrieving real financial data for surveyed companies in databases such as Thomson-Reuters Data Stream/Eikon or EMIS - Emerging Markets Information Service, which could be further analysed. There should however be two conditions met in order to implement such research procedure effectively: (a) the qualitative survey cannot be anonymous in order to identify entities that would further be searched in financial databases and (b) the researcher has to accept the duration of the survey, because the financial datasets for the current year are published in the following one and in many cases in order to be able to conduct statistical analysis a single measurement point is not sufficient (Urbanowska-Sojkin 2013, p. 432), therefore the duration of such study can be extended to few years.

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THE IMPACT OF LOCAL AUTHORITIES ON THE INNOVATIVE MILIEU

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Abstract: The low level of innovativeness of enterprises in Poland, combined with the growing role of regions in the modelling of social and economic processes, implies the need to investigate meso-environment factors determining the generation, diffusion, introduction, and commercialisation of innovation. The goal of this paper is to determine the role that provincial authorities play in shaping the elements that contribute to creating an innovative environment in a given region. The conclusions were based on the results of a Computer Assisted Telephone Interview (CATI) survey conducted on a sample of 259 businesses in the Silesian province. Statistical methods were used to find any links between the assessment of the significance of the factors in question and the size, level of innovativeness, and activity profile of the businesses.

Keywords: innovativeness, region, conditions of innovativeness, innovative environment

Introduction

In the coming years, the Polish economy will need to tackle the problem of how to increase the level of innovativeness of enterprises. The generation, diffusion, and commercialisation of innovation can be aided through the creation of a strong innovative environment (Markowski 2008). The innovative milieu is created by enterprises, research and development centres, financial institutions, associations, and public administration (Maillat, 1998).

The creation of a strong innovative environment implies a need to engage all entities (actors) of the milieu in the process. The goal of this paper is to determine the role of voivodeship local government in the shaping of select factors conditioning the innovative environment of a region. For the purposes of this work, the region is considered to be equivalent with the voivodeship area. The main goal is served by the following specific research goals: determining the level of innovativeness of the investigated enterprises; determining the impact of specific factors on innovativeness of enterprises; comparing the significance of the impact of the factors included in the research in entities at various levels of innovativeness, differing in size and in their field of activity.¹⁸

The research included an exploratory study of subject literature, a survey augmented with partially structured in-depth interviews with the management of the businesses, and statistical methods (Spearman rank correlation analysis, analysis of variance, Tukey's test).

A region as a stimulator of innovativeness: A theoretical view

The last thirty years have been ripe with theories placing the source of social and economic development in innovativeness. The most frequently quoted modern development concepts that make reference to innovation include the theory of innovative milieus, learning regions, networks, clusters, and systems (Nowakowska 2011; Siłka 2012).

The aforementioned concept of an innovative milieu was created in the 1990s and is based on relationships between entities. The precursor of milieu research is P. Aydalota (1986), who concluded that innovation comes from the milieu; his work is continued by the *Groupe de Recherche Européen sur les Milieux Innovateurs* (GREMI), which investigates interactions between local development and innovation.

An innovative milieu helps increase the local innovative capacity through a synergic and collective process of subject learning (Camagni, Capello, 2000), which is characteristically dynamic and tailored to the needs of the changing market. Inasmuch as any individual actors in the environment make independent decisions, they are connected by a common goal. An innovative environment is characterized by non-occasional cooperative relations between partners based on mutual trust, shared norms, rules, and values (Pietrzyk 2001, pp. 63-64; Maennig 2010; Słupińska 2016, p. 30) and aimed at generating innovation.

¹⁸ The results presented here are part of a broader research presented in: A. Kamińska (2017), *Uwarunkowania regionalne innowacyjności przedsiębiorstw*, Wydawnictwo CeDeWu, Warszawa.

Geographic and socio-cultural proximity of entities forming an innovative milieu in a region helps establish contacts, form lasting ties resulting in mutual learning, synergy, resource replenishment, and, crucially for small and medium enterprises in particular, a decrease in risk related to the introduction of innovation. In his concept of a *learning region*, R. Florida (1995) treats the region as an area that creates appropriate environmental and infrastructural factors for the creation and diffusion of knowledge, innovative ideas and solutions.

Creating a regional supply of knowledge requires the participation of all actors of the region's innovation sector (business, scientific institutions, local government, business support institutions) and the use of regional infrastructure. The role of local government is to provide organisational, financial, promotional, informational, and educational support for the activity of institutions that create, accumulate, and utilise knowledge (Kamińska 2016, 2017b).

According to R. Florida (2002), a creative society constitutes an inherent feature of an innovative milieu. The concept of the "creative class" points to advantages stemming from encouraging a creative society to settle in a given area and become active in science, culture, and art through the use of its skills, creativity, and talent. It requires the local authorities to create appropriate circumstances by reinforcing factors that the creative class expects as inducements to move into a place with friendly conditions and creative jobs.

M. Lorenzen (2001) lists three categories of factors stimulating regional learning and innovativeness of enterprises:

- tools supporting learning in enterprises (training, support for research in enterprises and creation of spin-off businesses through the use of the education system, financial support, information technology services);
- instruments stimulating learning between enterprises (support for creation and maintenance of networks of connections, clusters, creating an atmosphere of cooperation and trust);
- tools promoting the creation of knowledge centres and interregional cooperation (stimulating research in the public sector, development of higher education and technology transfer centres, utilising the potential of large businesses for knowledge diffusion in the region, making the region more attractive for investment in order to attract international corporations).

Clusters, which are also widely analysed in the literature (Porter 2001, Martin, Sunley 2003) and constitute an example of an innovative network, fit well within the subject matter of regional catalysts of innovation and contribute to making enterprises and regions more competitive.

The idea of innovation systems provides the most complex outline of factors influencing innovativeness. A national innovation system is a network of cooperating public and private institutions that interact in ways conducive to the creation, importation, modification, and popularisation of new technologies (Freeman 1987, p. 4). Regional innovation systems are an inherent part of national innovation systems (Cooke 1992); in Poland these are still nascent (Plawgo et al. 2013).

The functioning of innovation systems is regulated by innovative policy, which aims at creating an effective system of connections between science, business, administration, and the markets, as well as supporting innovative activity on various levels of the economy (Kamińska 2017a).

The aforementioned theories of regional influence on innovativeness have several traits in common. The significance of interactions between entities and non-material elements such as knowledge, skill, experience, and creation of an innovative culture is now being highlighted among the many factors influencing innovativeness of enterprises.

Impact of local government authorities on the innovative milieu – own research

Research method

The main research goal and the specific research goals were accomplished through a CATI survey conducted in the fourth quarter of 2016 on a sample representative in size (according to the number of employees of a given business) and activity profile (as Polish Activity Classification). The study included 259 small, medium, and large enterprises in the Silesian voivodeship.

Due to the subject matter and goals of the research, most of the survey recipients worked in the management.

The structure of the surveyed businesses was proportional to the population structure of Silesian voivodeship companies. Small enterprises accounted for 85.5% of the total sample, medium enterprises for 12.3% of the total, while large for 2.2% of the total.

Considering the type of activity, the largest share of the sample consisted of industrial enterprises (41.7%), then services (32.4%), trading companies (22.4%), and mixed activity businesses (3.4%). The most frequently represented sections of the Polish Activity Classification were, due to the structure of the region's economy, industrial processing (24.5%), retail and wholesale trade (23.0%), and construction (14.8%).

Results of own research

One of the goals of the study was to determine the level of innovativeness of investigated enterprises. The most important marker of the level of innovativeness were: the number of product, process, marketing, and organizational innovations introduced between 2013 and 2015, the degree of novelty of the innovations based on a five-grade scale (novel for the enterprise, locally novel, regionally novel, novel for the country, novel internationally), and a subjective assessment of the company's level of innovativeness by the survey respondent. Based on these criteria, every enterprise in question was assigned to one of six groups: very high level of innovation, high level of innovation, medium level of innovation, low level of innovation, very low level of innovation, non-innovative enterprise.

The results demonstrate, mirroring the findings of research by GUS (2017), that companies in the Silesian voivodeship have a low level of innovativeness (Table 1).

Table 1. Criteria of division of enterprises and the structure of the sample of enterprises surveyed in terms of the level of innovativeness (N = 259)

Level of enterprises' innovativeness	Criteria for assessment of the level of enterprises' innovativeness		Sample's structure	
	Number of innovations implemented in 2013-2015	Scale of innovation's novelty	No. of enterprises	% of N = 259
Non-innovative enterprises	0		145	56.1
Very low level	1-3	novelty in the enterprise's scale	55	21.2
Low level	1-3	novelty in the local, regional scale	36	13.9
Medium level	1-3	novelty in the scale of the country	19	7.3
	4-10	novelty in the scale of enterprise, local, regional, country's scale		
High level	more than 10	novelty in the scale of enterprise, local, regional, country's scale	4	1.5
Very high level	at least one	novelty in the international scale		

Source: Author's own elaboration based on the research

The survey sought to assess the significance of the select factors dependent on the actions of local government (Table 2).

The surveyed have graded the impact of each of these factors on the innovativeness of enterprises on a five-step scale. These were then converted into number grades (where 5 stood for "very high" and 1 stood for "doesn't matter") and averaged. Of note are the relatively high average grades of individual factors – the average is above 3.0 (Table 2), testifying to their significance for improving innovativeness.

Table 2. Significance of select factors influencing the innovative milieu of a region – average ratings

The type of factor	Average ratings
Local authorities' contribution to the development of human capital	3,60
Creation of knowledge centres in the region, and providing free access to market analyses, databases, information sources etc.	3,38
Promotion of entrepreneurial and innovative attitudes in the region	3,29
Increases in the capacity for innovation of public administration and improvements to the functioning of public administration	3,23

Source: Author's own elaboration based on the research

The analysis of the answers indicates that the largest importance is attributed to local government actions aimed at developing human capital. It was that factor that was rated the highest for significance, at an average of 3.60. Such a high position for actions of local government aimed at the development of human capital shows that the entrepreneurs are aware of the key importance of knowledge and skills of their employees for stimulating innovativeness. The respondents support assigning grants and scholarships, hunting for talent, organising training, and adjusting the educational profiles in public schools to better fit the needs of the region.

The entrepreneurs are also aware of the need for broad knowledge and a large supply of information that enables introduction of innovation, and the present shortcomings in that regard as well, which is why they rank the need to create knowledge centres in the region and to provide free access to various analyses and auxiliary data helpful in accomplishing innovative goals as the second most important of the listed factors. Half of the answers attributed a large or very large significance to it, and on average assigned it a rating of 3.38.

Promoting entrepreneurial and innovative attitudes in the region was given an average rating of 3.29. It has to be stressed that many projects undertaken to promote innovativeness and entrepreneurship, such as paying out grants or holding contests, are not costly and the main factors determining whether or not they will be attempted are the good will and initiative of local governments. Promoting innovative attitudes and behaviours contributes to creating an innovative culture in the region and shapes an atmosphere that promotes activity in its inhabitants.

Increases in the capacity for innovation of public administration and improvements to its functioning have been placed fourth with an average rating of 3.23. This result is surprising, as almost one in ten respondents (8.7%) claimed this factor is inconsequential.

The analysis of significance of the selected factors influencing the innovative milieu of a region was expanded with a comparison of the assessments between enterprises of different sizes, of different activity profiles (manufacturing, services, trade, mixed), and of different levels of innovativeness (as above). The results support a claim that the are differences between the assessment of the studied factors depending on the size of the surveyed company are insignificant. Only in one case is there a statistically relevant correlation between the assessment of the significance of the factors and the size of the business (Table 3). Smaller entities give a higher rating to the need for knowledge centres and free access to research results and any information necessary for innovative activity (Spearman's rank correlation coefficient $r_s = -0,132$ with significance level of 0,035). This is understandable and stems from the smaller enterprises having a reduced capacity to purchase goods of this kind due to their limited financial resources.

Table 3. Spearman rank correlation coefficients for correlations between the assessment of significance of the select factors influencing the innovative milieu of a region and the size of enterprises and the level of innovativeness of enterprises

The type of factor	r_s / p	Correlations between the size of enterprises and the assessment of the importance of specific factors	Correlations between the innovativeness level of enterprises and the assessment of the importance of specific factors
Local authorities' contribution to the development of human capital	r_s	-0,029	0,052
	p	0,645	0,407
Increases in the capacity for innovation of public administration and improvements to the functioning of public administration	r_s	0,013	-0,049
	p	0,830	0,433
Promotion of entrepreneurial and innovative attitudes in the region	r_s	0,025	0,018
	p	0,693	0,774
Creation of knowledge centres in the region, and providing free access to market analyses, databases, information sources etc.	r_s	-0,132*	-0,089
	p	0,035	0,154

r_s – Spearman's rank correlation coefficient, p – significance level.

* The correlation is significant at the level of 0.05

Source: Author's own elaboration based on the research

An analysis of the assessments of significance of the listed factors based on the level of innovativeness of the surveyed enterprise produces interesting conclusions. It appears that regardless of the level of innovativeness most businesses rate the investigated factors fairly highly and the calculated Spearman's rank correlation coefficients do not indicate any sort of connection between the level of innovativeness and the assessment of the listed factors (Table 3). This is important information for voivodeship authorities – increasing activity in these fields is important for all enterprises, regardless of how innovative they are.

An analysis of the significance of these factors for enterprises of different activity profiles allows us to note significant differences in the assessment of the first factor – the contribution of local government to the development of human capital. Companies operating in trade, manufacturing, or services value this element more highly. This is also reaffirmed by the analysis of variance (Table 4).

Table 4. Link between the assessment of select factors influencing the innovative milieu of a region and the type of activity of enterprises – results of an analysis of variance

The type of factor	Fisher-Snedecor's F-distribution	Significance level
Local authorities' contribution to the development of human capital	1,961	0,120
Increases in the capacity for innovation of public administration and improvements to the functioning of public administration	5,701	0,001
Promotion of entrepreneurial and innovative attitudes in the region	2,427	0,066
Creation of knowledge centres in the region, and providing free access to market analyses, databases, information sources etc.	3,237	0,023

Source: Author's own elaboration based on the research

This diversity of assessment also applies to two other factors – promotion of innovative and entrepreneurial attitudes in the region and increases in the capabilities of public administration, which are seen as less important by mixed-activity enterprises.

Discussion and Conclusion

The increasing importance of knowledge and non-material factors for the innovative milieu and innovation processes causes the surveyed entrepreneurs of the Silesian voivodeship to rate these factors highly. The respondents assign the most importance to the contribution of local authorities towards developing the human capital of the region. The significance of this factor is also a result of the current situation in the job market. Entrepreneurs increasingly often report problems with finding properly qualified workers and the number of deficit professions is growing (Barometr zawodów, 2017).

The presented research shows that all enterprises, regardless of their size and level of innovativeness, see the need for local authorities to work towards the development of human capital.

Accomplishing innovative projects requires broad knowledge about the markets, present and future trends, as well as significant amounts of information and data. According to the entrepreneurs, this is the second most important factor listed in the study, particularly for smaller businesses, which face difficulties in access to sources of knowledge and information because of their limited resources.

Promotion of entrepreneurial and innovative attitudes in the region is an important task of local government, contributing to creating an appropriate environment and culture of innovation in it. Enterprises of all sizes and level of innovativeness attribute fairly large significance to this factor.

Creating an innovative milieu requires knowledge and contribution not only from employees of businesses and business environment institutions, but also of the public administration. While this factor was rated as the least important in the listed group, its ratings were still relatively high. In this case no correlation was found between the assessment of the factor and the level of innovativeness or size of the company.

An increase in the level of innovativeness of Polish enterprises, regions, and the country at large requires knowledge of the significance of the factors that create an innovative milieu. The conclusions presented here may be conducive to building a strong innovative environment by the interested entities – businesses, research and development facilities, public administration, and business support institutions.

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THE SPECIFICITY OF EMPLOYEE MOTIVATION IN TELECOMMUTING

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Abstract: Motivation is one of the main pillars of the management process, especially when it comes to telecommuting. This is due to the fact that the whole team is working to accomplish all the objectives. For this, however, the involvement of workers is essential. It is not possible for the superiors not to know how to motivate their employees. Management provides many motivational effects. Some of them provide tangible financial benefits to those employed, while others raise self-esteem and enable individual development. The selection of the appropriate methods should be based on the priorities of the employee concerned. This implies that for a unit the status of material, verbal praise will not be received as a reward.

Keywords: motivation, telecommuting, teleworking

Introduction

Telework is a modern type of work, allowing to employ a given person to work from home. As a result, the companies can have workers who, for various reasons, cannot work on site. This situation applies mostly to the disabled people, and such type of employment as if becomes a new motivational tool for many, allowing workers to fulfill many different obligations at the same time. What is more, teleworking as an employment type may be seen as a choice in favour of an employee who faces a difficult situation, but who wants to work and invest their potential in a given company. A company itself also benefits from teleworking by reducing its employment-related costs, but also, and most importantly, by being able to find a well-qualified staff, regardless of the employees' life situation.

Important definitions

Literature provides a lot of research information on telework. Available subject data is interdisciplinary and combines the elements of economy, psychology, management, law, ecology, and logistics. However, what seems to be the biggest difficulty is the imprecise definition of the term.

Another definition has been provided by Telework Exchange, which presents telework as "any arrangement in which an employee regularly performs officially assigned duties at home or other work sites geographically convenient to the residence of the employee." [Dz. U. (Polish Journal of Laws), no. 181, item 1288]. However, this definition does not refer to the technological aspect of telework.

The researchers studying the theory of telework as a form of employment and a method of performing one's duties resulting from the employment relationship also use the following name variants of telework:

- telecommuting,
- remote work,
- flexible work,
- mobile work,
- work-at-home,
- e-work.

Entrepreneurs note that telework in Poland is difficult because of dated OHS regulations and other legal provisions. This situation is visible in practical operations, for instance when an employer who wants to improve employees' conditions of employment in order to adjust work to the employees' needs and expectations, and decides to hire a teleworker, has to cover greater costs of employment than in case of hiring a person to work at the company's site. Such higher costs result from regulations requiring the employer to provide e-worker with ergonomic equipment. What is more, the party hiring a teleworker is also responsible for controlling employees and ensuring proper OSH conditions in their workplace.

The current Labor Code of 2011 partially changes the above mentioned regulations. It requires the employer to:

- provide e-worker with equipment necessary to perform remote work;
- insure such equipment;
- cover any possible costs related to the equipment installation, service, exploitation, and maintenance;
- provide a teleworker with technical support and organize necessary training on using provided equipment.

The above provisions can be fulfilled in various ways, as they are mostly regulated in the contract between an employer and a teleworker [Dz. U. (Polish Journal of Laws), no. 181, item 1288].

Except for the above, the statute also regulates issues connected with the insurance and the principles of using provided equipment, the way of performing one's duties, and control measures.

In the case when teleworkers provide their own equipment for the performance of work, they are entitled to monetary equivalent, the value of which shall be agreed upon.

An employer also has the right to control teleworker's performance of work-related duties. However, the consent of a controlled person is necessary in this case, as specified by article 6714 §3, which states that an employer shall specify the method of control, taking into account the place of performing and the character of work. This regulation is related to the fact that all control procedures must not affect e-workers' and their families' privacy. Such control cannot disturb affected persons when they use their house rooms in accordance with their intended use.

The amended Labor Code removes the employer's obligation to ensure safe and hygienic condition of a teleworker's workplace and provide proper hygiene and health facilities, especially when telework is performed at teleworker's home.

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The first criterion for telework type division is the scope of duties performed in the form of telework. Basing on this criteria, the following types can be determined (Greenberg, Nilssen, 2008):

- permanent telework – full-time work performed remotely,
- alternating telework – work is partially performed remotely. On some days of a week a person works at a site, and on the remaining days – outside the workplace;
- supplementary telework – in this case a person works mainly at a site, but with the possibility to perform certain tasks at home, e.g. to finish some tasks that such person was unable to complete during working hours in the company.

Next division is based on the conditions in which e-work can be performed, including the following types (Greenberg, Nilssen, 2008):

- regular work – the rules regulating remote work have been previously specified,
- ad hoc work – an employer agrees for telework in special circumstances that are beyond employees' control.
- Telework can also be divided into types basing on the subject:
 - full-time employment contract telework – all duties performed by the employed persons,
 - mandate contract telework – work performed by freelancers and entrepreneurs.
- The last classification of types is based on the place where telework is performed:
 - at home,
 - in a telecenter,
 - during business trips (mobile or a so-called nomadic work),
 - in any other place, e.g. during business trips, which are becoming more and more common.

Entrepreneurs note that telework in Poland is difficult because of dated OHS regulations and other legal provisions. This situation is visible in practical operations, for instance when an employer who wants to improve employees' conditions of employment in order to adjust work to the employees' needs and expectations, and decides to hire a teleworker, has to cover greater costs of employment

than in case of hiring a person to work at the company's site. Such higher costs result from regulations requiring the employer to provide e-worker with ergonomic equipment. What is more, the party hiring a teleworker is also responsible for controlling employees and ensuring proper OSH conditions in their workplace.

As a result, telework is a form of using information processing technologies (e.g. telecommunications and computer) during a business trip, when certain work is performed or transferred to the worker, instead of transferring worker to work (Kaleta, 2013).

In order to undertake any action, it is necessary to specify its area of operation. In the case of competition, the area is a so-called competition arena, where market or out-of-market competition is applicable. The former is a phenomenon between the entities located on the demand and supply sides. That is why competition includes entities which know the level of product and service demand and supply (Stankiewicz 2005).

The second aspect of competitive operations is the subject itself. It is the basis for specifying competitors to be faced, allowing to determine their strengths and weaknesses, which facilitate actions aiming at achieving competitive advantage (Stankiewicz 2000).

Another significant factor is the object of competition – a specification of what the competitors are competing for. This is important as competitive activities are carried out on the so-called “input” and “output” area of specific objects. What is crucial here are the resources and their reception by end customers. For competition to exist, objects have to be substitutive, and the existence of their purchasers is necessary (Begg, Fischer, Dornbusch 1993).

In more generally understood competition, it is also important to specify the scope of competition, indicating the objects of analyzed operations and the possibility of their activity. In this area, the following types can be listed (Wrzosek 1997):

- branch scope – answering the question whether an entity functions in one or more areas;
- product line scope – specifying whether competitors offer one or more key goods or services;
- market segment scope – characterizing the type of end customers;
- vertical scope – analyzing possible links in the chain of vertical cooperation regarding a specific product;
- geographical scope – indicating markets of competitors' operations, providing important information on their business;
- competence scope – regarding individual skills necessary to prepare a specific market offer.

In modern competition it is also crucial to apply the concept of intensity indicating the tendency and ability of entities operating in the market to undertake seamless adaptation processes. It is especially important for changing market conditions, as illustrated by the following phenomena (Spyrek-Bandurska 2015):

- the level of one's business dependence on consumers' behavior and markets instruments that can be applied,
- the ability and skills in the area of influencing customers.

That is why a turbulent environment of an organization requires that numerous innovations are implemented. Some time ago one of such innovations included online shopping, which is currently a standard option. Employees' effectiveness is also growing in importance. They want to be appreciated and have more freedom in their operations. As a result, flexible forms of employment may become a motivating factor, which can make employees more involved into their organization's operations.

Different forms of telework

The most recent literature on this topic provides different classifications of telework.

Basing on the first criterion of the possibility to perform a part of duties by means of telework, the following types can be distinguished (Teluk 2002, p. 70.):

- permanent telework, where the work is performed remotely at all times;
- alternating telework (with a division of work), where for one part of a week a teleworker works in the company's office, and for the rest of time – outside of it;

- complementary telework, where the employee mostly works in the office but has the possibility to perform some of the tasks at home, for instance to finish the tasks that have not been finished during the office work hours.

A different classification divides telework with regard to the conditions in which e-work is performed. Telework can then be (Szpriger 2012, p. 126.):

- regular with pre-set rules of remote work,
- temporary (ad hoc), where the employer allows telework in special circumstances that are beyond the employee's control.

The next classification divides telework basing on the subject:

- telework with employment contract – performing all duties by persons employed in a company.

The last classification is based on the place where telework is performed:

- at home,
- in a telecentre,
- during business trips – a so-called mobile or nomadic telework,
- in some other place.

Analysis and Discussion

Continuous changes in today's world also force the change in the approach to telework, not only in the way the organization is run, but also in its management model.

The first important factor regards the opinions on telework, presented in table 1.

Table 1. Opinions on telework

No.	Type of opinion in 2015	X = %
1.	Telework is an innovation which raises many doubts among the entrepreneurs.	28
2.	Telework can be a source of numerous benefits.	26
3.	Telework requires changes in the way organization is managed, and there is some risk connected with it.	42

Source: own analysis

Pursuant to the above analysis, it can be claimed that opinions on telework vary significantly. That is why many entrepreneurs are reluctant to allow for hiring teleworkers. However, this form of employment provides the following benefits for the company:

- reduced costs of employment – 72% in 2015;
- highly qualified new employees – 52%;
- new motivating factor included in the scope of benefits for employees – 37%.

Another important aspect of telework is to organize a work position for this form of employment, as show in the following table.

Table 2. Telework organization

No.	The element of organization in introducing telework to the management system	X = % in 2015
1.	Planning works that can be performed remotely	32
2.	Specifying forms of payment settlement for employees.	45
3.	Creating employee control principles.	14
4.	Checking employees' skills and qualifications.	12
5.	Creating the scope of factors motivating e-workers.	49

Source: own analysis

On the basis of the above presented data it can be claimed that currently other elements of creating teleworkers' management model are more significant than in the past. Currently, less attention is paid to the specification of which tasks can be performed, as well as to checking employees' skills and qualification prior to hiring them as teleworkers.

Motivating Telecommuters was one of the research elements. Indicators and the employee response.

Table 3. Motivating

Response type	Justification	Percentage response distribution (X=%)
I'm happy with the motivation	I can have an additional bonus for the results.	11
	The job itself, to keep it, tends to work, because it's comfortable working.	42
	The job itself, to keep it, tends to work, because it is hard to employ In telecommuting	27
I'm not happy with the motivation	It's hard to get a bonus.	31
	There is no way to integrate with others.	5
	I feel a worse employee by the control system and this is related to the teleworking	2

Source: own analysis

As the table points out, the above reasons for satisfaction and unhappiness are many. This is not only the relationship with the motivators, which are used by superiors, but also with individual expectations of employees with respect to the workplace.

Conclusion

Telework is a new tool, which allows to employ people who are not able to work in a traditional way. As a result, more people can start working and generate profit for the country. However, what is the most important is that telework is a perfect solution for companies which aim at reducing employment-related costs. Even though employing teleworkers imposes certain obligations on the employer and even requires companies to reorganize their work, presented research shows that with telework employment-related costs may be reduced by 30%. An additional benefit is the availability of a wider group of potential workers from among the specialists in difficult personal situation, who want to work but, for various reasons, cannot take up traditional, on-site jobs.

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NEW TRENDS IN THE LABOUR SPHERE AND ITS CONSEQUENCES FOR THE EMPLOYEES

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Abstract: The modern globalised world is constantly bringing new changes and challenges to the social and economic spheres of human life, including the labour sphere. The most profound conditioning to the labour sphere is connected with the development of globalization and new information and communication technologies. They influence and change the time of work, the way of working, communication, interpersonal relationships, work-life balance, etc. The article presents the new trends in the labour sphere and the consequences of these trends for the employees presented on the basis of employees in Częstochowa administrative district.

Keywords: labour sphere, employees, globalization, work-life balance

Introduction

Processes related to globalization have a diverse impact on the sphere of work. It may be positive, because they create possibilities unprecedented so far for both employers and employees. Yet, they may be simultaneously negative, being detrimental in the psychological, economical or ethical sphere of human existence. The processes of globalization enable the expansion of employees activity into new markets, stimulates competition and facilitates searching for the best places of employment and life. On the other hand, it can increase the economic stratification of societies, level of unemployment, pauperization of underdeveloped countries, and finally negatively affect the quality of life and work of employees.

The development of mass media, new means and forms of communication based on the Internet and digital media, as well as the intensification of migration processes have contributed to the unification of cultural or political patterns of human behaviour and the increasing interdependence of entities in these areas, i.e. cultural or political globalization. The development of new technologies, the increase in the level of computerization of societies and, as a consequence, an increase in the role of information in social life led to the development of the so called information society. (Karczewska, Bsoul-Kopowska, 2017, pp 790-791)

Flexible time of work is spreading around the world, employees are often available to the employer also after the mandatory working time, what can undermine the employees' work-life balance. All these processes affect the sense of security in the society and the shape of social security. Space barriers due to the information technology revolution are of lesser importance. From a cultural perspective, this information revolution enables the development and diffusion of global cultural patterns around the world through digital media, determining people's choices of lifestyle, behavior patterns or values as well as life aspirations.

Some new features of the world of work in the modern "risk society" occur, including the following:

- the possibility of easier, faster dismissal of employees,
- redistribution of risk; it passes from state to an individual through the social security system,
- the risk that knowledge and education acquired in one's youth is not enough for the whole professional life. (Swadźba 2012, p. 59)

As Z. Bauman pointed out (2006, p. 72), the flexible labour market has changed the current treatment of work based on the involvement in work. It is not easy to identify one's roles, social positions, and build the individual's identity based on work due to the instability of the sphere of work, including contemporary employment contracts. Therefore, the idea in which an employee connects his life with one workplace or industry is no longer valid. In the modern labor market professional flexibility, training, retraining and adaptation to frequent changes in professional life are valuable.

Information plays the key role in the professional and private life. The development of technologies enabling constant communication which breaks the barriers of space has caused many changes in political, economic, cultural and everyday life. New types of mobile electronic devices such as tablet, smartphone, gps connected to the Internet enable immediate transmission and reception of information, data, constant

contact with the employee/employer and control over the employee and his place of residence at any time of work outside the company's headquarters. In addition, information and knowledge play the key role in an increasing number of professions and in an increasing number of industries.

Manuel Castells states that the information and technological revolution has created a new form of society - the so-called network society – and networked forms of organization, which largely affects the variability and instability of work. The development of the Internet and social media networks also affect the networking of interpersonal relations, including relations in the sphere of work. (Barney 2008, pp 114-115)

Interpersonal human relationships at work play a significant role in communication processes and, as a consequence, influence the quality of work and employees' satisfaction from work. (Robak, Albrychiewicz-Słocińska 2017, p. 451) Hence, the communication and quality of relationships at work are important both for the employer and the employees.

Methodology

The aim of the research was to analyze the modern changes in the labour sphere and their consequences to the quality of work and life of the employees. The method chosen for the research was the survey method. The research was conducted among the population of district Częstochowa in the year 2018. The respondents were the employees working in the Częstochowa district and the selection of the sample was made using the snowball method. The respondents were surveyed using a questionnaire consisting of 22 closed questions with few exceptions when the respondent could answer the open-ended option: "other (what?)". The 300 respondents were surveyed outside the working environment and without the supervision of the employer, in order to get honest, independent opinions of the employees about their working conditions and attitudes towards work. The 276 full properly completed questionnaires were returned. Different industries and people with different levels of education and types of work were researched. The study is limited to the local dimension of employees working in Częstochowa district, but it shows some significant general changes in the labour sphere and it can provide important guidelines for future research on a broader scale.

Results and discussion

The results of the conducted research comes from 276 questionnaires from the employees of Częstochowa district conducted in the year 2018. The results shows important changes that have affected the work of a modern employee and its consequences for the quality of his work and life.

One of the issues reviewed was the employee eagerness to change his/her job. It served as one of the indicators of the satisfaction of an employee from his work. However it should be born in mind that the decision to change the job or not depends also on other aspects, such as employee's financial situation or situation in the labour market in a given industry. The respondents were asked: do you plan to change your job in the near future? The answers are presented in figure 1.

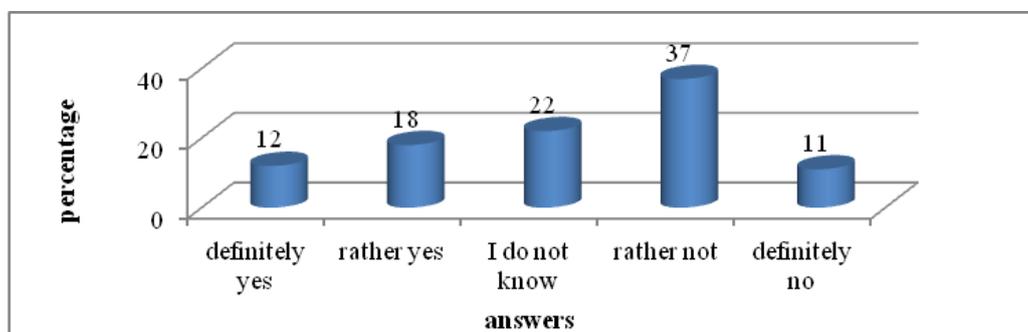


Figure 1. Planning to change own job in the near future. N=276. Results in percentage

Source: Results of own research

The majority of respondents (37%) claimed that they rather will not change their job in the near future and 11 percent are sure that they will definitely not do this. Yet, 30 percent of respondents definitely or rather plan to change the job. The number of undecided respondents was 22 percent.

The surveyed were also asked about the level of satisfaction from their job: to what extent do you feel satisfied with your work? The results indicate that the majority of employees (51%) have medium level of satisfaction from work and significant number of employees have got very high or high level of satisfaction. Only 7 percent admit that their level of satisfaction is low or very low.

The collected data were analyzed in terms of the relation between the level of satisfaction from work and the eagerness to change the job. The data are presented on the figure 2.

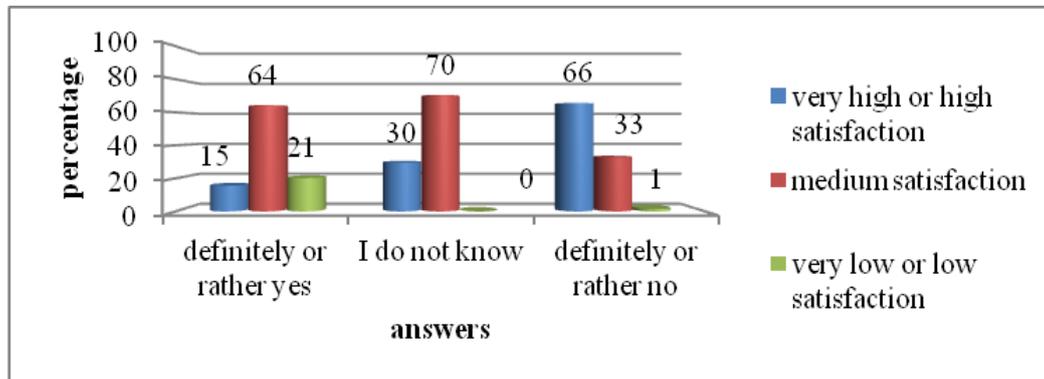


Figure 2. Level of satisfaction from work and the eagerness to change the job. N=276. Results in percentage

Source: Results of own research

Among those who wanted to change the job, the number of people who were satisfied was the lowest (15,5%), among those who did not want to change their job, the number of satisfied employees was the highest (65,6%). Among people who did not know if they wanted to change a job, the highest number of people was those of medium satisfaction with their work (70,5).

Another two aspects were also analyzed together: the stability of employment and satisfaction from work (figure 3)

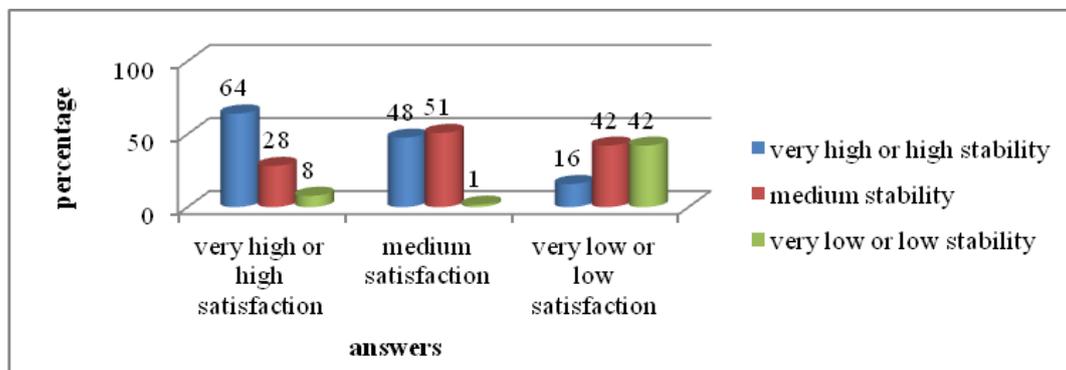


Figure 3. Stability of employment versus satisfaction from work. N=276. Results in percentage

Source: Results of own research

Among those who have got stability of employment, the highest share of people represent those with high level of satisfaction (64,1%) and at the lowest share represent those of low satisfaction 15,8%. Medium stability gives medium satisfaction for the majority of people (50,8%) and the majority of people with low stability has got low satisfaction from work (42,1%).

Another researched aspect was availability to the employer even after working hours, during leisure time (e.g. telephone contact with the supervisor). The results are presented in the figure 4.

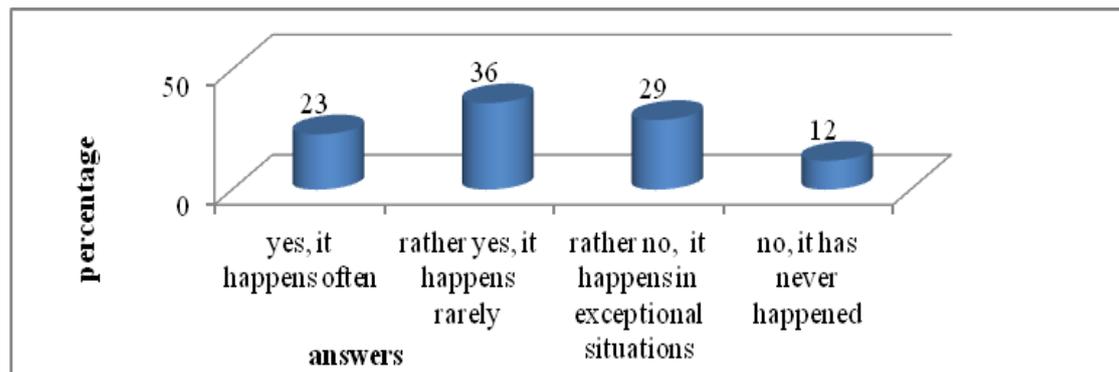


Figure 4. Availability to the employer even after working hours, during leisure time (e.g. telephone contact with the supervisor). N=276. Results in percentage

Source: Results of own study

The majority of employees are available to the employer after working hours. Very frequent contact with employer concerns 23 percent of the surveyed and rather frequent contact concerns 36 percent of the employees. To one third of employees it happens in exceptional situations, only 12 percent claimed that it has never happened.

The technological development in communication pertains to the majority of employees. The 58% of them declares very high or high level of using the Internet and its tools, 23 percent of employees declares a very low or low degree of using the Internet.

The researched were asked about the reason for employee's dissatisfaction with work. They could select more answers than one. The figure 5 presents the results.

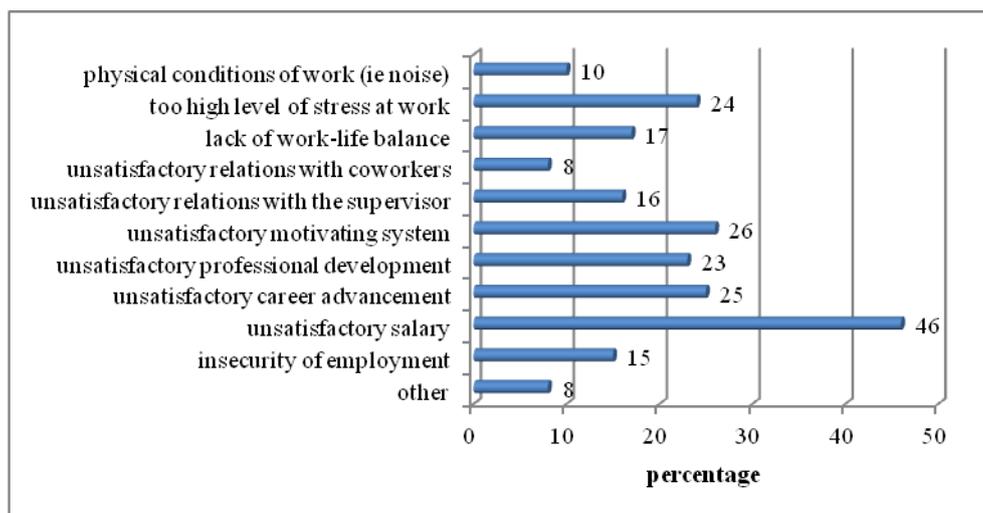


Figure 5. The reasons of dissatisfaction with work. N=276. Results in percentage

Source: Results of own study

The most common reason of dissatisfaction for the respondents was unsatisfactory salary (46%). The other mentioned factors were: unsatisfactory motivating system (26%), unsatisfactory career advancement opportunities (25%), too high level of stress at work (24%) and unsatisfactory professional development opportunities (23%). Around 17 percent of the surveyed mentioned lack of work-life balance. Other factors, not presented on the figure, were: too much overtime, too few people, insufficient number of personnel, overload or "nothing".

On the other hand, there was also a question about the sources of employees satisfaction from their work. The respondents could select more answers than one. The answers are presented on the figure 6.

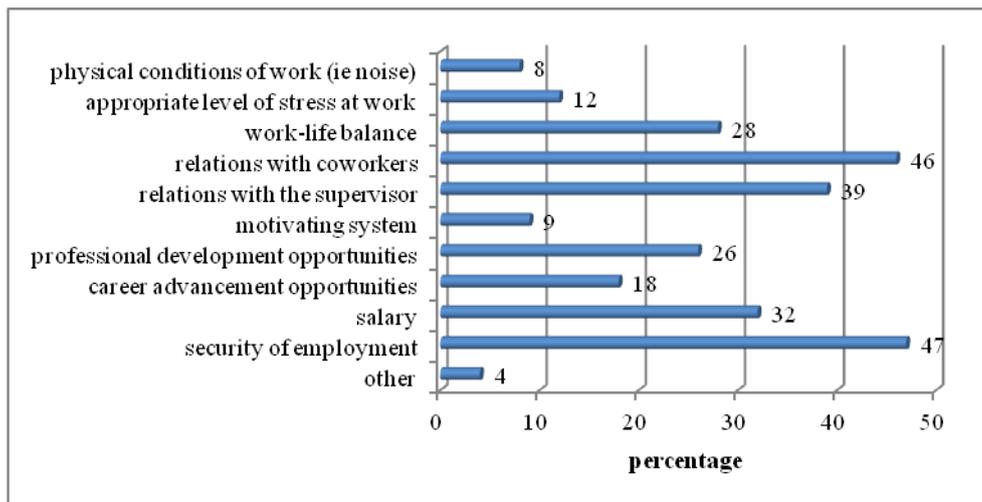


Figure 6. The reasons of satisfaction from work. N=276. Results in percentage

Source: Results of own research

The most common factor bringing satisfaction to employees were: security of employment (47%), relationships with coworkers (46%) relations with supervisor (39%) and the salary (32%). Quite significant were also work-life balance (28%) as well as professional development opportunities (26%). Other factors, apart from the ones presented in the figure, were: customer satisfaction, commuting to work, position or “nothing”.

The last figure (figure 7) presents the relation between availability to the employer and the level of stress of an employee.

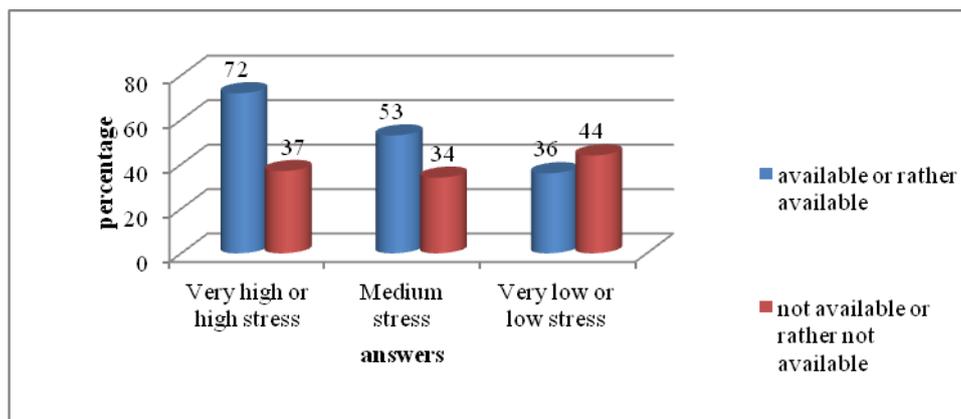


Figure 7. Availability to the employer after work versus stress level. N=276. Results in percentage

Source: Results of own research

As the figure shows, there is a relation between two researched aspects of working life. The highest level of stress concerns mostly and especially those employees who are available to the employer after working hours (66%) and the highest share of employees whose stress is low represents employees who are not available to employer after working hours (55%). The rapid flow of information connected with the technological development, enabling efficient communication and permanent access of employers and clients to the employees may limit the time off from work and destabilize the balance between work and private life. Possible consequences in this area include: workaholism, professional burnout, problems with balancing different spheres of life (Chrapek 2016, pp 169-176).

Another important problem of the modern Polish labour market is the lack of stability of employment and constant changes which some employees are not ready for. Due to changes related to the flow of information, a knowledge-based society is being created. In the 21st century, scientific knowledge and new technologies are the basis for the development of modern societies.

The employees who want to stay informed about the latest developments in the field of science and technology should continue to educate themselves to follow the changes. As the research shows, most of the white-collar workers use the Internet in their work. One of the greatest strengths of the employee is his knowledge which is being possessed and developed throughout life (continuing education) (Castells 2003). Employees point to the lack of development prospects for promotion at the place of employment as their source of dissatisfaction from work. They are expected to continuously improve their knowledge and competences, while are not provided with development opportunities.

Conclusion

The sphere of work is one of the most important areas in human life. It is the main source of obtaining means of meeting needs and to a large extent it is also a source of satisfaction and self-fulfillment of an individual. It affects the level of the individual's quality of life. What is more, it is a source of gratification, self-realization of individual but at the same time potential threats to its psychophysical well-being.

There are many positive consequences associated with technological development, communication opportunities, distance working, flexible working time, continuous improvement, learning and information gathering, but it can also have destructive impact on the psychophysical well-being of individuals. Technological development, including the one in the sphere of communication, an increase in the role of information and knowledge in the life and work of an individual led to the creation of the knowledge society and information society. The information society requires staying informed and up-to-date all the time, constant learning, development, which can lead to overloading with professional duties and professional burnout.

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THE INTEGRITY FACTORS OF HALAL FOOD FACTORS IN SUPPLY CHAIN

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Abstract: The aim of this study is to discover and to strengthen the integrity factors of Halal food in terms of the supply chain management, as this area is gaining recognition. Additionally, the aim is to use factors for future research. Thus, this study is based on a literary review about Halal supply chain integrity and to apply factors of Halal certification, Halal traceability, Halal trust among supply chain members and commitment of supply chain members to improve the Halal food in supply chain integrity. As a result, this research addresses stakeholders of the Halal supply chain, which have not been fully understanding and appreciative. This study appraises the factors that are critical towards strengthening the integrity of the Halal food supply chain and adds value to the knowledge of the Halal supply chain.

Keywords: Halal food, Halal supply chain management, integrity, supply chain management

Introduction

The transparency of the food as one of the key factors that had to be conserved in the manufacturing process (Ali, et al., 2017). The healthiness of the product is the upper importance and a basic foundation in the Halal food industry (Ali & Suleiman, 2018). Additionally, consumers nowadays are concerned not only about better-quality, safer food but more on the integrity of the food (Ali, et al., 2017; Manning, 2017). Muslim consumers have given an increased attention to their foods concerning their Halalness. Moreover, customers have not only demanded Halal products but also for the *Halal* process (Bonne & Verbeke, 2008). As a result, customers select to buy Halal products principally because of the Halal process. The concept of Halal in supply chain is unclear and has been misread and misjudged by the industrial companies. According to them, the Halal supply chain means totaling extra cost and it can be a problem to the company without knowing the fundamental reason overdue it. Therefore, the consciousness of the Halal supply chain needs to be informed and exposed to the industry companies as well as to the consumers. With today's global food supply chains, ensuring food integrity is difficult, due to their length and complexity (Ali, et al., 2017; Manning, 2017). The problem statement can be summarized in the following question: What is the role of Halal supply chain integrity in the food industry? To be more specific, are the four factors of supply chain: Halal traceability, Halal certification, trust among supply chain members and commitment of supply chain members strengthening the integrity of Halal food supply chain management?

Based on previous literature concerned with the Halal concept, the researcher will discover and strengthen the integrity factors of Halal food in overall of the supply chain. Plus, the aim is to use this factors for future research.

Literature review

The Halal food industry is vastly growing all around the world, cross Muslim and non- Muslim countries. The Halal market gained increasing acceptance among both of Muslim and non- Muslim consumers who associate Halal with ethical consumerism and food that is appropriately processed in a way that is healthy and not hearing consumer. Therefore, the concept of Halal products or food can be a synonym for safety, hygiene and quality assurance of what is consumed (Ambali & Bakar, 2013). As mentioned by Tieman (2011), Halal requests a supply chain approach where the value chain and its supply chain activities completely align with the Syariah requirements. Increasing the demand for Halal products should also affect the guarantee towards the integrity of Halal food products. Furthermore, the Halal supply chain approach is important to guarantee the Halal integrity at the point of consumption (Tieman, 2011). Before continuing, it seems important to us to add some information about the nature of the supply chain management.

Supply chain management

According to Mentzer *and al.* (2001), supply chain management is “the systematic, strategic coordination of the traditional business functions and the tactics across these business functions within a particular company and across businesses within the supply chain, for the purpose of improving the long-term performance of the individual companies and the supply chain as a whole”. Moreover, supply chain management is an inter-functional organization and incorporation amongst every member of the production chain and leading efficaciously understand and contrivance to leads competitive advantage (Ballou, 2007).

In recent times, the food industry has transformed markedly. Growing population has made the market demand food more complicated and heterogeneous. Additional, researchers discover that globalized supply chains are more problematic to manage than domestic supply chains (Meixell & Gargeya, 2005). Nowadays, consumers are affected not just about safer food and better-quality but more on the integrity of the food (Ali, et al., 2017; Manning, 2017; Soon, et al., 2017). Consequently, the academic literature and food scandals together specify the insufficiency of the standards and regulations that as a mechanism that currently being utilized to guarantee the safety and integrity of food products. In the next paragraphs, we will discuss the important role of Halal in the supply chain in food industry.

Halal food supply chain

After understanding what supply chain management is, this study will combine the fundamental definition of this together with the principles of Halal. But before, we need to understand the meaning of Halal supply chain. There are various aspects of the appearance of the Halal supply chain. Owing to the multifaceted nature of supply chain management, cases of uncertainty Halal status, and the problem of Halal integrity, have controlled to more pressing need for Halal supply chain management (Tieman, et al., 2012; Zulfakar, et al., 2014). Moreover, studies have shown that Muslim consumers are now more conscious of their food consumption (Abdul-Talib and Abd-Razak, 2013; Mohayidin and Kamarulzaman, 2014), and they are demanding Halal supply chain to further range the Halal product integrity (Kamaruddin *et al.*, 2012). Also, it has been deeply confirmed that customers are ready to pay for the quality of Halal logistics (Kamaruddin, et al., 2012; Tieman, 2013) which justifies the increasing demand for Halal supply chain management.

The difference between traditional supply chain and Halal supply chain is that the traditional supply chain concern on cost reduction while Halal supply chain focus on to keep the Halalness of Halal product. In summary, the objectives of Halal and conventional supply chains are dissimilar. However, Halal food supply chain applies the same principles (to satisfy customer, maximize the overall value engendered, and be a resourceful and cost-effective segment of the whole structure) as a conventional supply chain with special exception on the type of products that are been a treat. For conventional supply chains, it focusses on maximizing profits while satisfying consumer demands. On the other hand, the principal objective of Halal supply chains is to enlarge Halal integrity in consensus with Syariah law from the first step to the point of consumer purchase (Tieman, et al., 2012).

However, the principles that constitute Halal supply chain is still unclear. Various authors have a different interpretation of what makes Halal supply chain. For instance, Tieman *et al.* (2012) and Tieman (2013) suggested that the critical points in Halal supply chain are during transportation, storage, and terminal operation. Zulfakar *et al.* (2014) suggested that “complete segregation, Halal certification, and the presence of Halal-trained employees are critical to the success of Halal meat supply chain”. Moreover, Omar and Jaafar (2011) established “the factors of animal feed, proper slaughtering, and complete segregation are important factors in Halal food supply chain”. Prior studies indicated that there are several and inconsistent factors that constitute Halal supply chain, thus presents a research gap that motivates this study. Therefore, this study establishes some factors critical in the Halal supply chain that make it in integrity. In every key stage of the Halal supply chain, he has recognized the basic control points required to keep Halal integrity. The three most important Halal critical points acknowledged by him in the food supply chain are Halal certification, Halal traceability and appropriate storage, transit and equipment. According to this point of view, what are the reasons that increased the integrity of Halal food chains?

Halal food supply chain integrity: The impressive factors of Halal food supply chain on integrity

Today, the integrity of Halal food supply chains is becoming a growing concern (Zailani, et al., 2010; Lam & Alhashmi, 2008). There are several reasons caused that Halal industry is progressively engaged with the integrity of Halal food chains. First of all, Halal integrity problems are more expected to arise than before, for the reason that increasing complication of supply chains (Lam & Alhashmi, 2008) and concern on cost reduction of the logistics industry (Wilson & Liu, 2010). Secondly, the complication of today's supply chain is making integrity problems harder to distinguish (Talib, et al., 2008; Abdul, et al., 2009). The third reason is that the significances of Halal integrity problems in the supply chain have questionably become costlier than before for brand proprietors and retail chains to repair (Waarden & Dalen, 2010; Zakaria & Abdul-Talib, 2010). This paragraph of the paper will focus into the factors that are critical towards strengthen the integrity of the Halal food supply chain. The factors that will be included in this discussion contain: Halal traceability, Halal certification, Halal trust among supply chain members, and commitment of supply chain members.

Halal Traceability

In Halal food industry perspective, at every stage of the supply chain, the concept of traceability can be useful to trace the Halal status of a special food product. It contains all the information concerning the activities that the Halal food products have expired concluded with activities elaborate before the production of that special food product like the origin of the ingredients/animals. An understanding and consistent traceability system in the Halal food supply chain can grow the Halal transparency and reinforce the Halal integrity. At the moment, several publications (Mohd Albakir & Mohd-Mokhtar, 2011; Yang & Bao, 2011) approve that almost wholly remaining tools to trace the Halal status are undependable, deficiency of security, not real-time basis and take a longer time to competition. Current technology such as Radio Frequency Identification Device (RFID), barcode and Internet can be utilized and operated to develop a dependable means for Halal traceability.

Halal certification

As mentioned by Nakyinsige *et al.* (2012), "Halal certification is a proof that the product observes Halal manufacturing procedures, provide assurance to consumers as the product is safe for Muslim consumption". With today's global food supply chains, ensuring food integrity is difficult, due to their length and complexity (Ali, et al., 2017; Manning, 2017). Therefore, certification is an extensively used mechanism to control the integrity and marketing of Halal foods crossways to supply chains (Farouk, 2013; Van der Spiegel, et al., 2012). Certainly, certification obliges firms to conform with several standards and is essential both to keep a competitive advantage in the market and to assure stakeholders in the firm (Ali & Suleiman, 2018). The advantage of certification is uncertain, standards and audits alone are not essentially adequate in the long term to ensure the integrity of the food supply chain (Maruchek, et al., 2011; Tan, et al., 2017). Furthermore, Halal certification is crucial to the achievement of Halal supply chain because it will set a previous for other components and activities in Halal supply chain (Ab Talib, et al., 2015).

Halal trust among supply chain members

Pullman & Wu (2012) define the concept of trust as "the expectation that buyers and sellers will behave in accordance with the express or implied commitments". Traditional, conferring to Tieman (2011), trust in the Halal food supply chain can be as simple as pure trust. Halal consumers ready to purchase Halal food from a Halal supplier or shop founded on the trust that Muslims have the religious obligation to sell only Halal products in their daily business activities.

Today, trust in the supply chain is based on the Halal logo or Halal certification, as the business evolved (Tieman, 2011). In a multiethnic society, whereby non-Muslims are engaged in selling food products to the huge communities which contain the Muslims consumers, and also in the recent food trade scenario, whereby the most of the raw materials or ingredients are located from all over the

world, the best way to notify the consumers that the particular food products are produced conferring to the Halal guideline and Sharia law principles is to display the Halal logo or certification on the product packaging or at the retail premises. Nevertheless, consumers are still disbelieving whether the Halal logo or certificates displayed are honest. Consequently, installing trust during all parties involved in the management of Halal food products movement is indispensable element towards enhancing the integrity status of the Halal food supply chain.

Commitment of supply chain members

To recognized and reinforce the trust among parties in the supply chain, a certain level of commitment should also be revealed by the particular parties. In the context of Halal food supply chain, commitments like willingness to offer devoted possessions to supply the Halal clients requests, willingness to apply Halal certification for raw materials/ingredients essential by the buyers, and willingness to send the workers to Halal food behavior- associated training are between the measures that can help enhance the integrity of the Halal food supply chain. By displaying a high level of commitment, whole parties in the Halal food supply chain can play shared roles together in protective and confirm the Halal integrity will be at the highest level.

Discussion

Today, Muslim consumers are more aware of their food intake (Ab Talib, et al., 2013; Mohayidin & Kamarulzaman, 2014), and they are demanding Halal supply chain to further extend the Halal product integrity (Kamaruddin, et al., 2012). The integrity of Halal food supply chains is becoming a growing concern (Zailani, et al., 2010; Lam & Alhashmi, 2008). So, this study aimed to investigate the relationship between the factors integrity of Halal food and supply chain management. Precisely, this study appraises the factors that are critical towards strengthening the integrity of the Halal food supply chain and adds value to the knowledge of the Halal supply chain.

The current study indicated that the application of factors integrity of Halal on the Halal supply chain is very important to convince consumers of the Halal status of the product to be purchased. So, a comprehensive literature review is undertaken to discover these factors of Halal integrity and to apply it to the Halal supply chain.

As traceability and trust are important in preserving the Halal integrity, parties in the supply chain must guarantee that Halal products or services are traceable and the compaignies must give also trustiness, because a side from implanting more assurance to the customers, in the event of cross-contamination along the Halal supply chain, the point-of-contamination could be punctually perceived and resolute. Furthermore, this examination managed to highlight the important factors for Halal supply chain which are reckoned to be suitable for overall system in Halal food industry. The factors that will be included in this discussion contain apart Halal traceability and Halal trust among supply chain members, we found that Halal certification, and commitment of supply chain members are important factors to improve the Halal integrity in supply chain. In addition, it must be stressed that ignorance in any one of the factors will lead to potential break in the Halal chain, as mentioned by Tieman (2011), non-Halal will prevail if there is a break along the Halal chain. Moreover, it must be emphasized that these four factors suggested here are not priority because as mentioned in other studies, they have other factors as important in successfully integrating Halal in supply chain, as well as to achieve total Halal supply chain.

Conclusion

Based on the discussed literatures, the incorporation of Halal and supply chain management is relevant. Furthermore, Halal supply chain management is a new fact, determined by the Halal industry to expand Halal from source to the point of consumer purchase, to ensure the integrity of the Halal product for the end-consumer and export markets. However, to guarantee that the Halal food products continue Halal even whereas it has covered bigger distance and undergone several rigging activities inside the supply chain, some protecting and preemptive measures must be engaged. By way of the demand for Halal food products is predicted to increase even greater in the nearby future, factors such

as Halal traceability, Halal certification, trust, and commitments between supply chain members, should be gifted serious attention to guarantee the requirements and welfare of the Halal food consumers can be satisfied and well protected.

This research has debated and developed factors to strengthen the integrity of Halal in food supply chain management. It is hoped that this integrity factors will be valuable to other studies in the future within the Halal industry and Halal food supply chain body of knowledge. Further empirical testing can be carried out in the future research to test the relationship between factors that have been stated in this conceptual framework for better understanding. To be more specific, with regards to academic implications, the review provides two contributions. Firstly, the factors that are critical towards strengthening the integrity of the Halal food supply chain could be used as a guide in constructing research instrument. Secondly, the outcome of this study contributes to the existing knowledge of Halal supply chain and reinforce the practicality of this integrity factors for a study on supply chain management. Similarly, this study highlights and appraise the integrity factors as important in successfully integrating Halal in the supply chain, as well as to achieve total Halal supply chain.

There are several limitations needs to be highlighted in this study. Firstly, this study only discusses the integrity of some factors related to Halal food supply chain, thus ignoring other factors will be helpful to strengthen the integrity of Halal. Future studies should encompass all Halal business to unearth the integrity factors for Halal industry. Secondly, the study lacks empirical evidence and future research should be done to test the factors moving the integrity of Halal food supply chain management.

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IS THE DEVELOPMENT OF RUSSIAN REGIONS SUSTAINABLE? THE STUDY OF THE CENTRAL FEDERAL DISTRICT

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Abstract: The herein paper is devoted to the analysis of the main economic, social and environmental indicators of the Central Federal District regions. The Central Federal District is a key macro-region in the Russian Federation with the largest population and highest contribution to the development of the Russian economy. At the same time, the conducted analysis shows that the dynamics of the development of the Central Federal District regions were very heterogeneous in the period from 2010 to 2015. The paper demonstrated that in spite of relatively stable economic growth, a number of problems in the social sphere (primarily in the health and educational sectors) have been identified. Moreover, the dynamics of the environment indicators were not sustainable in the part of the regions analyzed. As a result of the conducted research, we identified the main problems of the Central Federal District from the point of view of sustainable development.

Keywords: regional development, gross regional product, socio-economic dynamics, environmental conditions, Central Federal District of the Russian Federation

Introduction

The Central Federal District (CFD) is the key macro-region of the Russian Federation. It includes seventeen regions: Belgorod, Bryansk, Vladimir, Voronezh, Ivanovo, Kaluga, Kostroma, Kursk, Lipetsk, Moscow, Orel, Ryazan, Smolensk, Tambov, Tver, Tula, Yaroslavl regions and Moscow city. The Central Federal District is the largest in populations among Russian Federal Districts. Its territory is inhabited by more than 39 million people, which is 26.8% of the total population of Russia (Russian Federal State Statistics Service).

The CFD contribution to the development of the Russian economy is very significant. According to the Russian Federal State Statistics Service, the share of the CFD in the manufacturing sector in 2015 was 31%, in the production and distribution of electricity, gas and water - 29.2%, in mining - 11.8%. Moreover the Central Federal District had the highest share among all federal districts in the production of agricultural products (26.3%), retail trade turnover (34.2%), foreign trade turnover (53%), fixed capital investments (25.2% %) and financial investments (70.5%) (Russian Federal State Statistics Service). Thus, CFD is the leader among Russian macro regions that sets the rhythm of development of the whole country. In this regard, it is important to analyze the dynamics of the development of the regions that make up the Central Federal District.

Literature Review

The problem of sustainable regional development is extremely important for the Russian economy. On the one hand, the successful economic development of the regions is the basis for the well-being of the population and the revenues to the federal budget. On the other hand, the successful solution of social problems and concern for the environment raise the quality of life of the population and create conditions for political stability and long-term development of the territory. A large number of studies have been devoted to the evaluation of various aspects of the development of Russian regions.

Most authors agree that the development of Russian regions is extremely uneven. This unevenness reflects in the concept of four Russia, developed by N. Zubarevich (2010) that is widely known. According to this concept the Russia-1 unites Moscow and the cities with over a million populations, in which 21% of the Russian population lives. The middle class of Russia is concentrated in them. The main internal migration is directed to these cities. These people have access to jobs, markets, culture and the Internet. The Russia-2 unites industrial cities with population from 20 to 250 thousand people. The population of these cities, which makes up about 25% of the population of the country, is mainly employed in industry, is poorly educated and continues to lead, according to the author, the "soviet way of life". The solvency of the population is low. The Russia-3 unites the Russian outback - small towns and villages, where 38% of the total population of the country lives. In these settlements there is

a reduction and aging of the population. Finally the Russia-4 unites the republics of the North Caucasus, Tuva and Altai, which account for 6% of the country's population. The economy of these regions depends to the greatest extent on the support of the federal center

Conclusions about the uneven development of Russian regions are confirmed by other researchers. Thus, M. Malkina (2016) argues significant inter-regional differences in Russia. Moreover she states that the trends of regional convergence which were observed until 2012, was replaced by the opposite trend of divergence. Moreover, the study proves that the degree of inter-regional inequality in Russia is increasing with an ever-increasing rate.

These conclusions are confirmed by other experts. G. Gagarina et al (2017) creates a model for forecasting the development of Russian regions. Based on the analysis of statistical data, the authors prove that more than 64% of Russian regions are characterized by low and below average level of social and economic development. On the one hand, this conclusion reveals serious problems in regional development in Russia. On the other hand, it points the presence of serious regional potential in Russian, which can be realized on the basis of proper federal and regional policies.

Experts state that the reasons of the problems of the regional development in Russia are caused by the process of transition to a market economy (Estes 2007), ineffective social and environmental policies and the lack of development of civil society institutions (Crotty and Rodgers 2012). A number of authors see the prospects of overcoming the prevailing trends in developing in a competent policy of the region's competitiveness development, taking into account cluster policies and the main components of sustainable development (Pozdnyakova et al 2017).

Methodology of the research

Sustainable development requires the simultaneous solution of diverse and contradictory problems of economic growth, social well-being and environmental protection. All methods of measuring the degree of sustainability of the regional systems development can be divided into two groups: use a system of indicators or integral estimates creating. The second approach is often criticized for the complexity of justifying the methods of integrating individual indicators into a general indicator of the development sustainability. Therefore, the first approach is used in this study. It involves the use of a group of indicators that characterize the most important aspects of sustainable development: economic, social and environmental.

We use the gross domestic product indicator in order to characterize the economic component of development. To characterize the social component, the indicators of education and public health are most often used. We use provision of preschool child care institutions and elementary and secondary schools in order to assess the level of the education accessibility. We use number of hospital beds and number of population per one hospital bed to assess the availability of health care. As the main ecological indicators of the environment state we use emission of pollutants into the air and discharge of contaminated sewage disposals into water bodies. We analyzed the dynamics of the regional indicators of the CFD for the period from 2011-2015. The source of data for analysis was Russian Federal State Statistics Service.

Analysis of the economic, social and ecological development of the Central Federal District

The key macroeconomic indicator of the region development is the gross domestic product (GDP). The share of each region in the GDP of the CFD is shown in Figure 1. The dynamics of GDP in all the analyzed regions is positive (Figure 2). However, the growth rates of GDP differ. Thus, in 2015, compared with 2014, the growth rates of GDP increased in twelve regions of the Central Federal District: Belgorod, Bryansk, Vladimir, Ivanovo, Kostroma, Kursk, Moscow, Oryol, Ryazan, Smolensk, Tver and Yaroslavl regions.

In 2015, compared to 2014, the GDP growth rate in the Bryansk region was about 10%, in the Ivanovo region about 17%, in the Moscow region about 10%, in the Orel and Smolensk regions about 6%. At the same time, in a number of regions the GDP growth rate in 2015 was insignificant in comparison with 2014. It was 2% in Belgorod, Vladimir, Kostroma, Tver, Yaroslavl regions, and 1% in the Ryazan region (Russian Federal State Statistics Service).

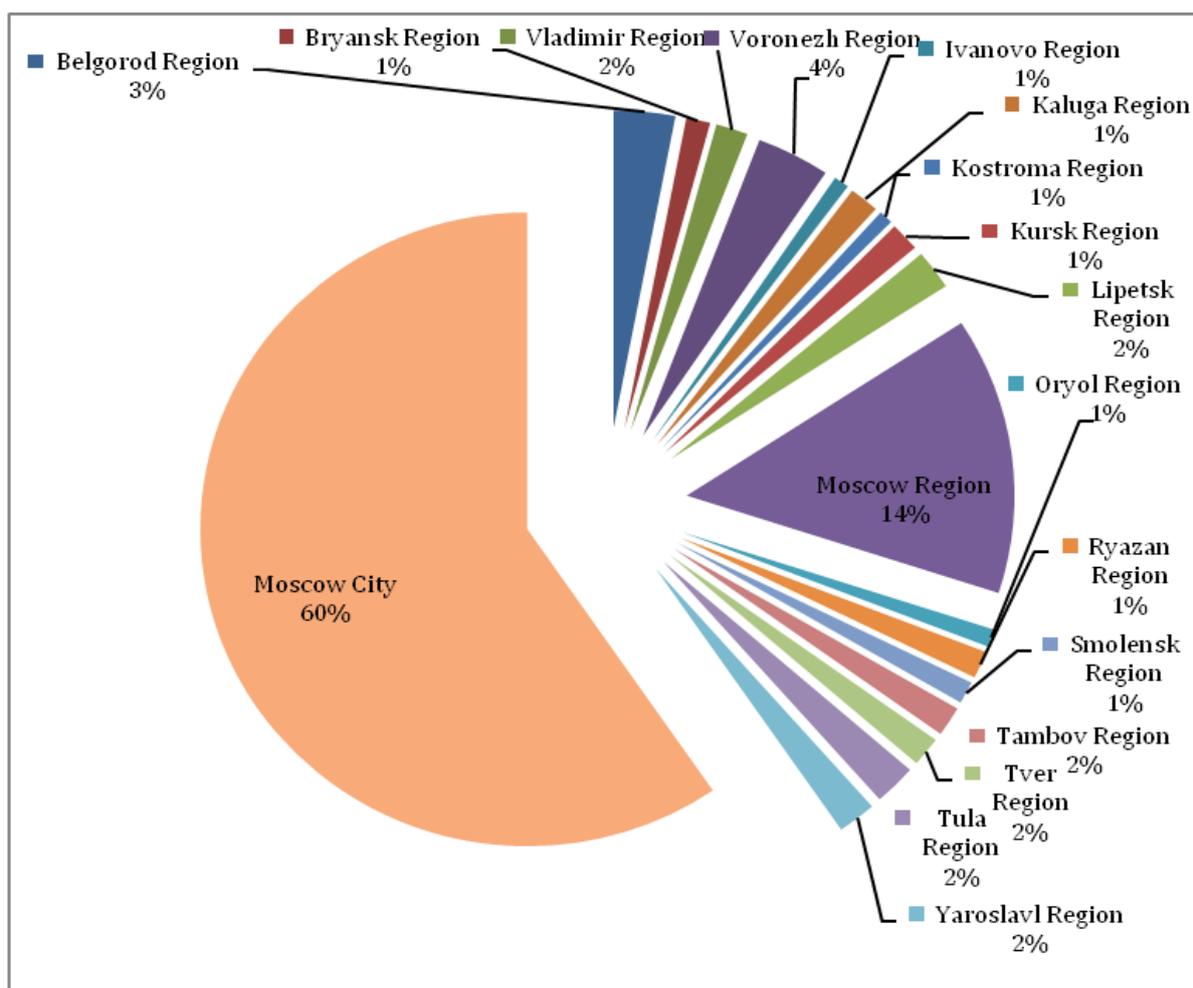


Figure 1 - The share of the regions in the Central Federal District GDP in 2015

Source: Russian Federal State Statistics Service

At the same time, the GDP growth rate decreased in a number of regions. This group includes the Voronezh, Kaluga, Lipetsk, Tambov and Tula regions, as well as Moscow. Tver region lost 8% of GDP growth from 2011 to 2015. In the Voronezh Region the decline in GDP growth was about 2% (to 15% in 2015 compared to 17% in 2014). In the Kaluga region the growth rate of GDP fell from 11% in 2014 to 2.5% in 2015 (Russian Federal State Statistics Service).

A serious decline in the GDP growth rate is observed in the Lipetsk region. In 2014 the GDP increased by 26% and led the region into the leaders of the CFD for this indicator, in 2015 the situation changed and the GDP growth was only 15%. In the Tula region, the decline in the GDP rate was significant: in 2014 it was 18% but in 2015 it decreased to 16%. In Moscow GDP growth rates decreased from 18% in 2011 to 6% in 2015. The highest growth rate of GDP over the last two years of the period under review was demonstrated by the Tambov region where it was 21%, although the GDP growth rate in the Tambov region in 2015 decreased by 0.1% compared with 2014 (Russian Federal State Statistics Service).

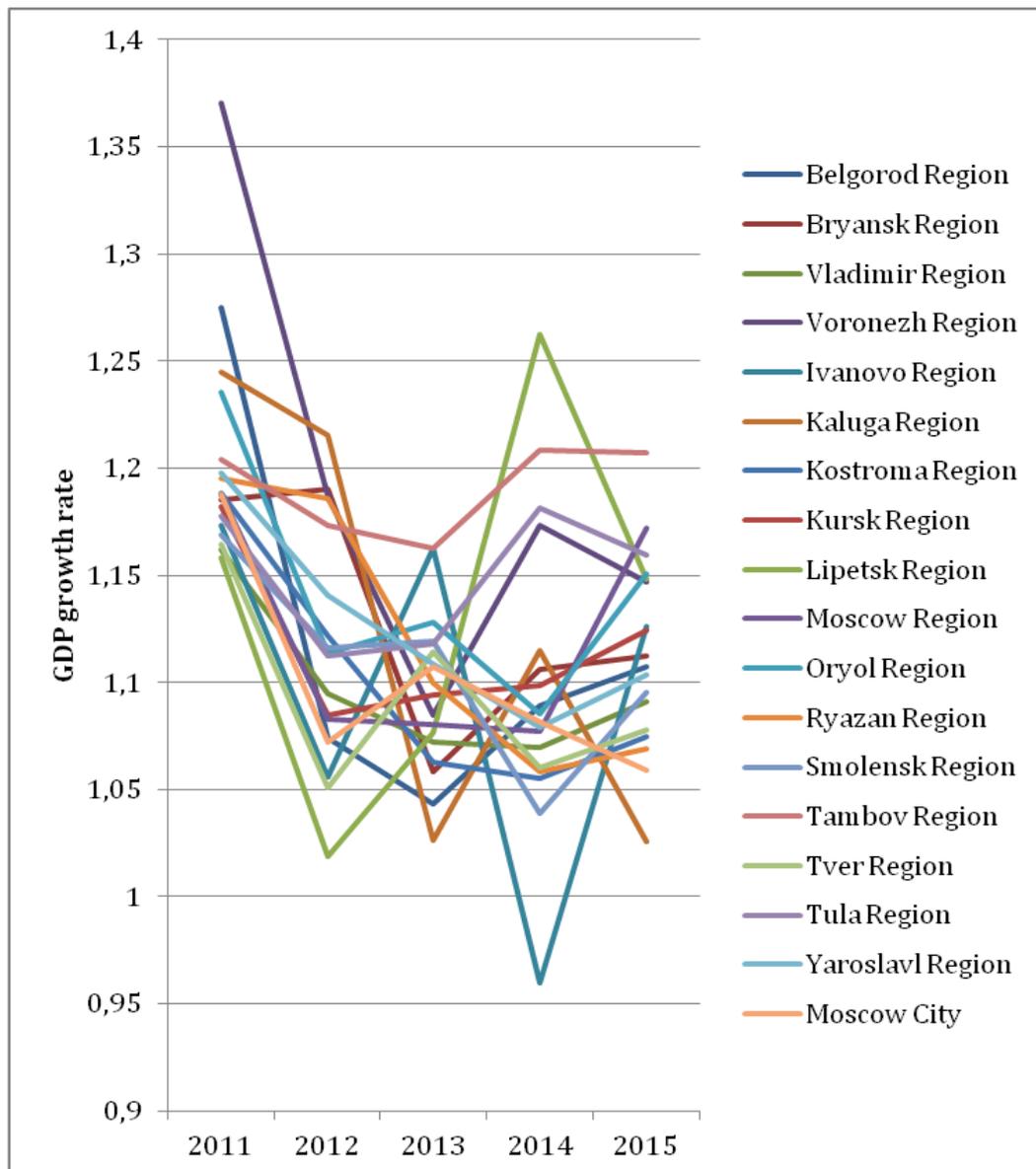


Figure 2. Dynamics of GDP growth rates in the regions of the Central Federal District for the period from 2011 to 2015.

Source: Russian Federal State Statistics Service

The dynamics of GDP in the period under review is nonlinear. However, with the exception of the decline in the GDP growth rate in the Ivanovo region in 2014, all regions of the CFD throughout the whole period under review show an increase in this indicator. The highest GDP growth rates in the analyzed regions were observed in 2011, after which the growth slowed. At the same time, in 2015, despite the difference in growth rates (from 2.5% to 21% in different regions), GDP growth was observed in all regions of the CFD, and showed higher growth rates of the economy than in 2014 year in general the majority of regions (Russian Federal State Statistics Service).

The average growth rate of GDP by the regions of the CFD can be called stable: its level throughout the period under review was about 13% per year. Thus, despite the depreciation of the ruble in December 2014, the aggravation of the political situation and the introduction of a sanctions regime against Russia by a number of countries, as well as Russian counter-suctions, the dynamics of the economic development of the regions of the Central Federal District remained positive in the period under review.

In contrast to the positive economic development, the change in the social indicators of regional development in CFD was not satisfactory. There was a decrease in a number of important indicators of the quality of social security of the population, which include the provision of preschool child care institutions and elementary and secondary schools. The dynamics of the provision of preschool child care institutions in the CFD regions is shown in Figure 3. The figure shows that the number of preschool institutions has increased in six regions: in the Tambov region (40%), in the Kursk region (9%), in the Lipetsk region (3%), in the Belgorod region (2%), in Bryansk and Voronezh regions (1%). In other regions there was the indicator decrease. The worst situation was in Oryol region and Moscow, where the decline was about 11% (Russian Federal State Statistics Service).

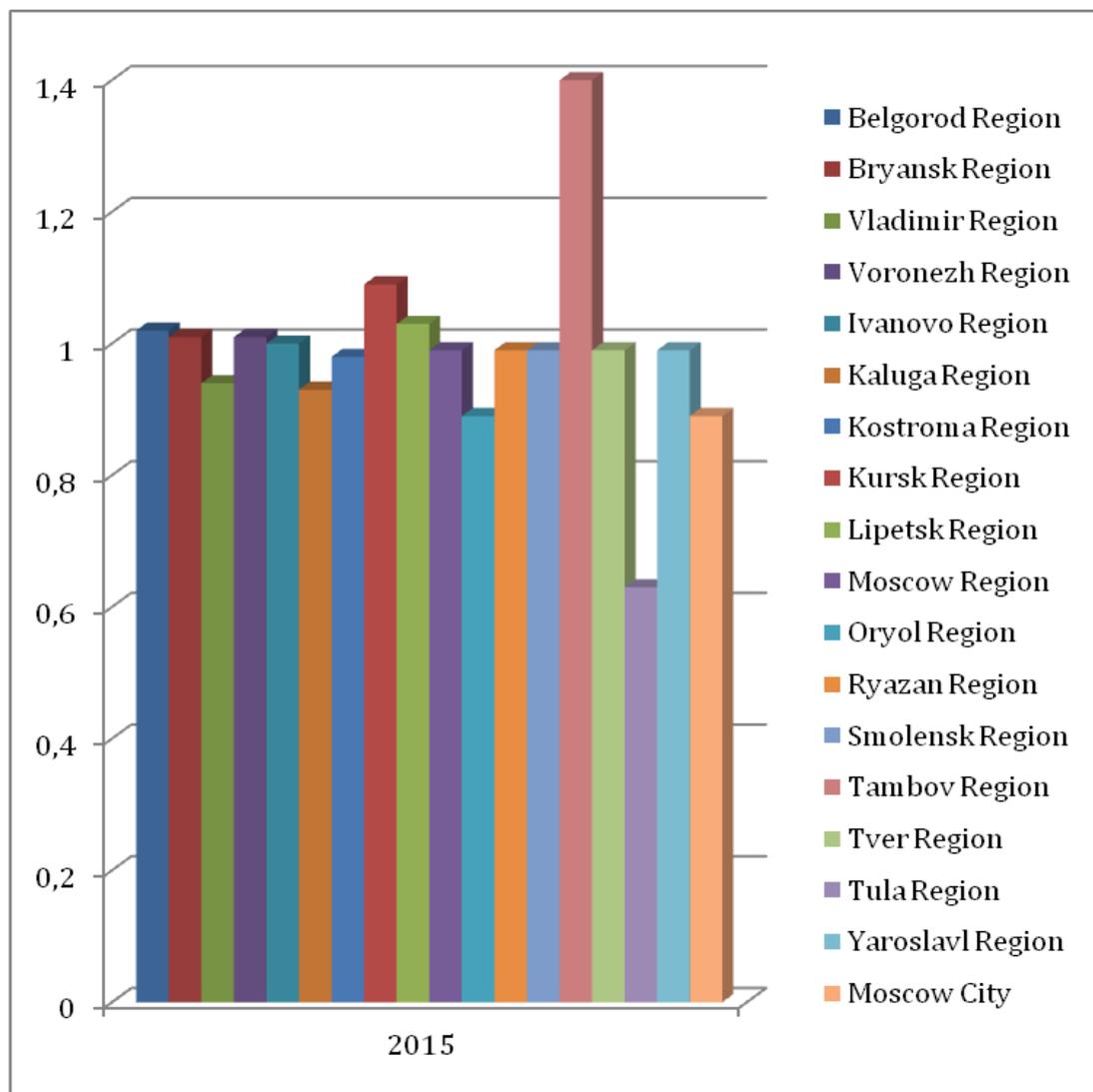


Figure 3. Dynamics of the pre-school institutions provision in the Central Federal District regions

Source: Russian Federal State Statistics Service

The number of elementary and secondary schools has been dramatically decreasing in all regions throughout the period under review. The most significant rate of decline was observed in Moscow (23% in 2015), as well as in the Tambov region (22% in 2013 and 2014). This is due to the policy of the Russian Ministry of Education of schools consolidation as well as the schools closure in rural areas (Figure 4).

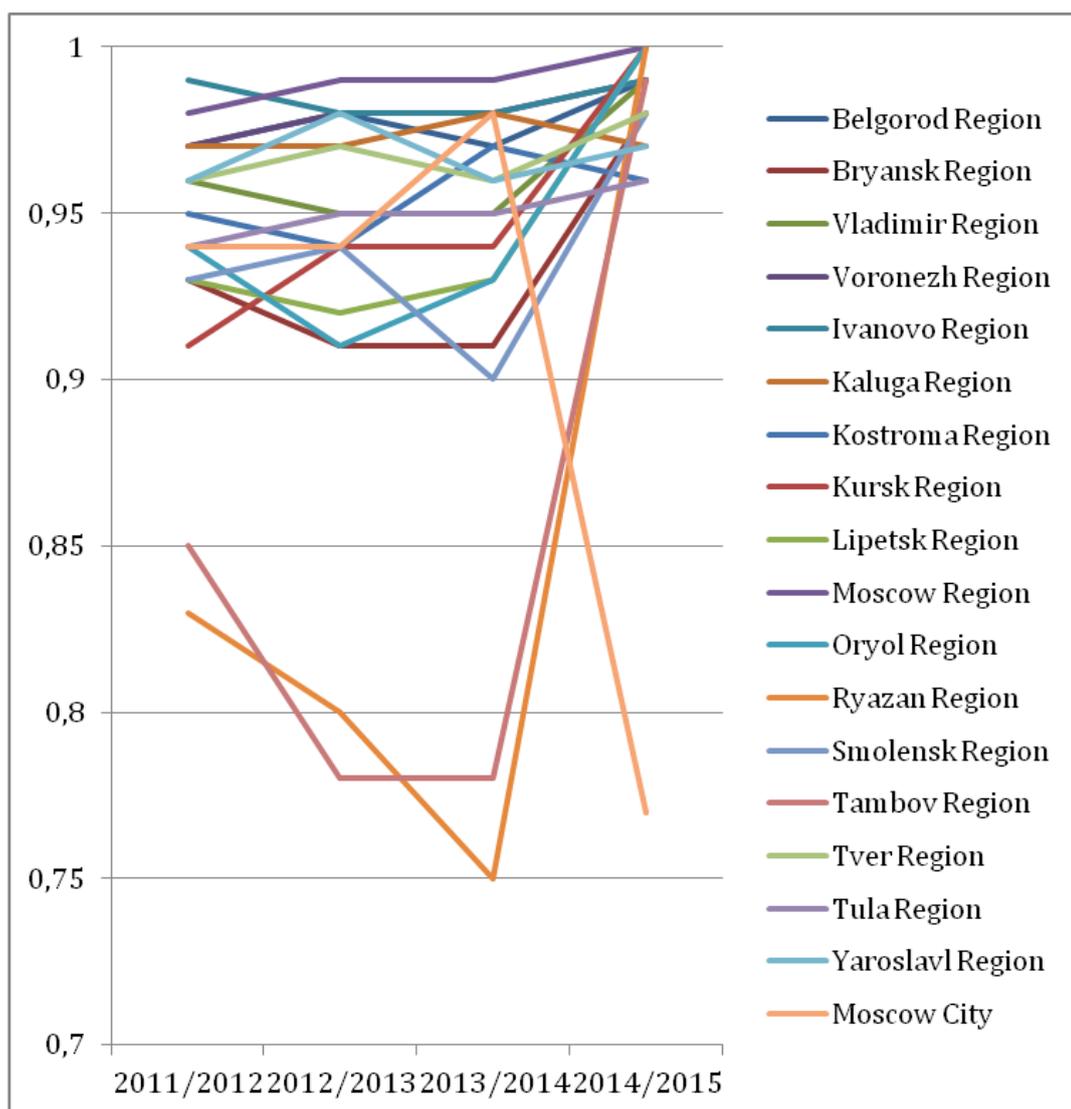


Figure 4. Dynamics of the elementary and secondary schools number in the Central Federal District regions

Source: Russian Federal State Statistics Service

In the health sector, negative processes are also observed. The number of hospital beds in the analyzed regions is declining dramatically. The decline has been observed since 2012 and it ranges from 1% to 16% per year (Figure 5). In 2015, this indicator remained stable only in the Vladimir and Moscow regions. In 2015, the number of hospital beds decreased in Moscow (13%), Bryansk region (9%), Ivanovo and Kaluga regions (8%), Voronezh region (7%), Yaroslavl region (6%), Belgorod Orel and Tver regions (4%), Ryazan region (3% %), Kostroma, Smolensk and Tambov regions (2%), Kursk, Lipetsk, Tula regions (1%).

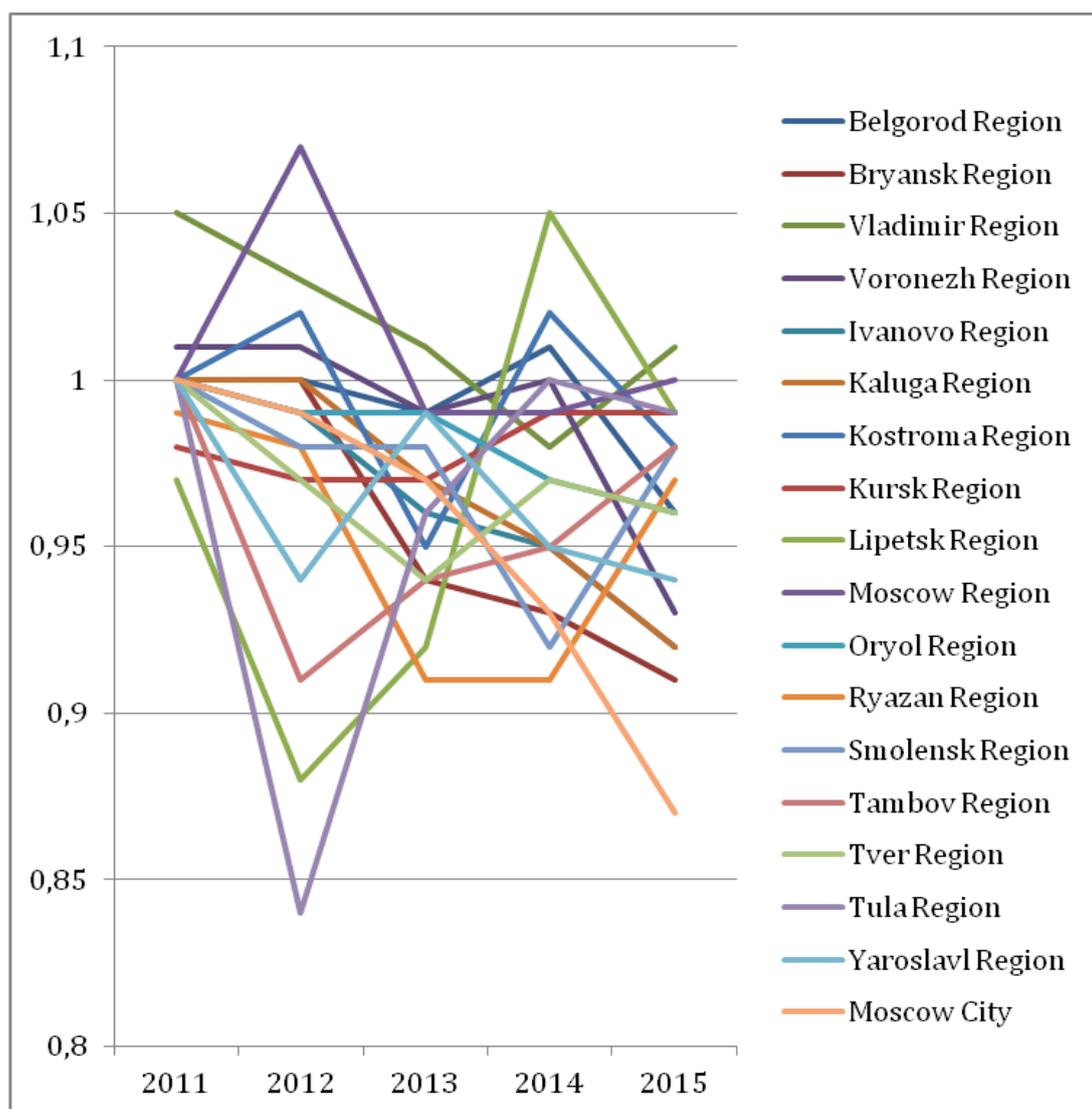


Figure 5. Dynamics of the number of hospital beds in the Central Federal District regions

Source: Russian Federal State Statistics Service

Taking into account that the process of reducing hospital beds has lasted since 2012 and affected all the regions analyzed, these changes meant a significant decrease in the accessibility of hospital medical care in the regions and a reflected decrease in the quality of life of the population. Thus, the indicator of the number of people per hospital bed has grown significantly since 2012. In 2015, the increase was highest in Moscow (16%), Bryansk and Kaluga regions (9%), Ivanovo region (8%), Voronezh and Yaroslavl regions (7%) (Figure 6).

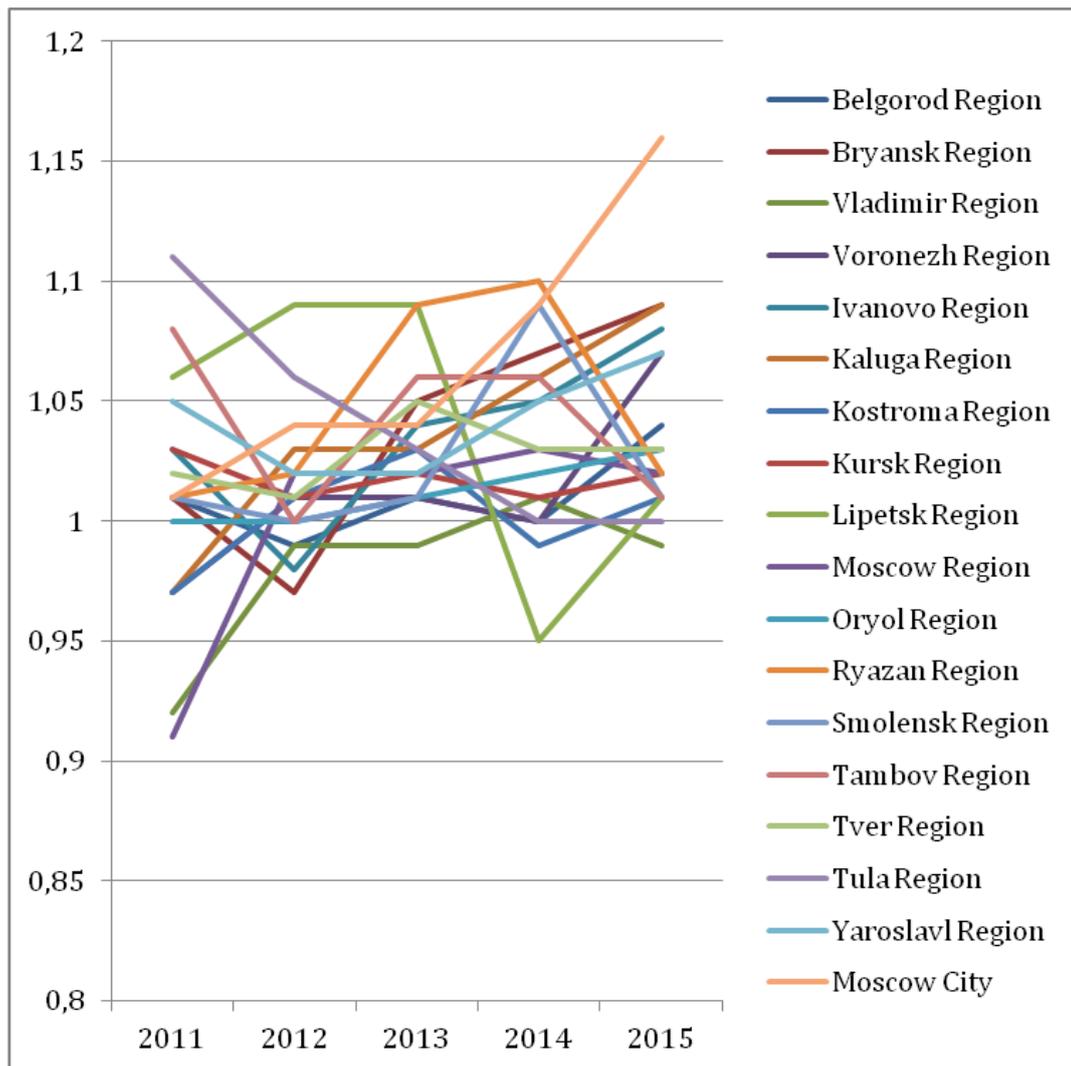


Figure 6. Dynamics of the number of population per one hospital bed in the Central Federal District regions

Source: Russian Federal State Statistics Service

A number of environmental indicators also show negative dynamics. Figure 7 shows the dynamics of the emission of pollutants into the air. The most significant growth of this indicator in the observable period of time was in Oryol region in 2013 (118%). In 2015, emissions growth was observed in the Kaluga region (37%), Tambov region (24%), Moscow region (12%), Smolensk region (11%), Bryansk and Yaroslavl regions (3%), and Voronezh region (1%).

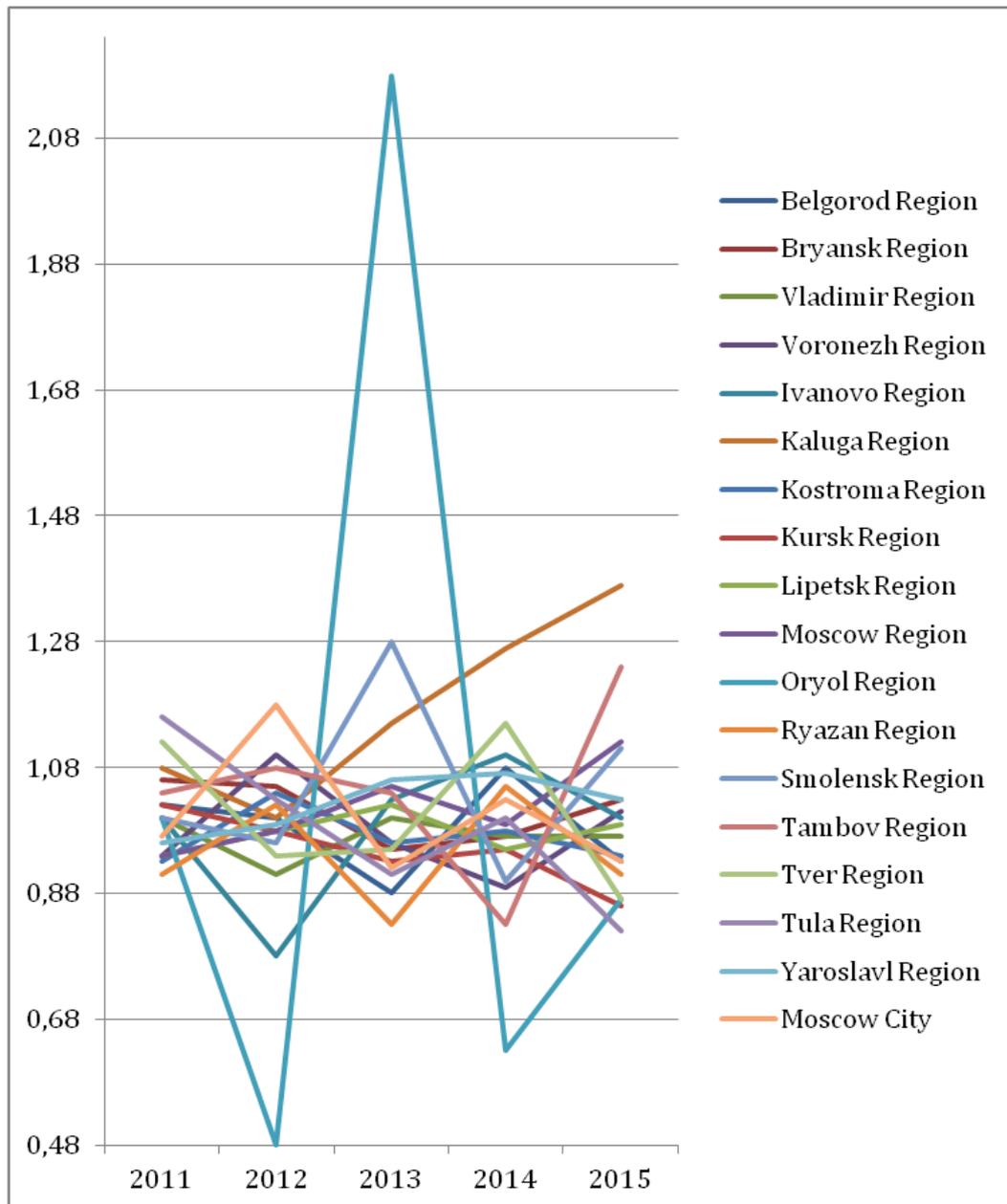


Figure 7. Dynamics of the emission of pollutants into the air in the Central Federal District regions

Source: Russian Federal State Statistics Service

The second important environmental indicator is the discharge of contaminated sewage disposals into water bodies (Figure 8). Despite the fact that in fourteen regions this indicator decreased in 2015, in the three regions under survey it was growing. So growth was observed in the Tambov region (8%), the Yaroslavl region (4%) and the Ryazan region (1%).

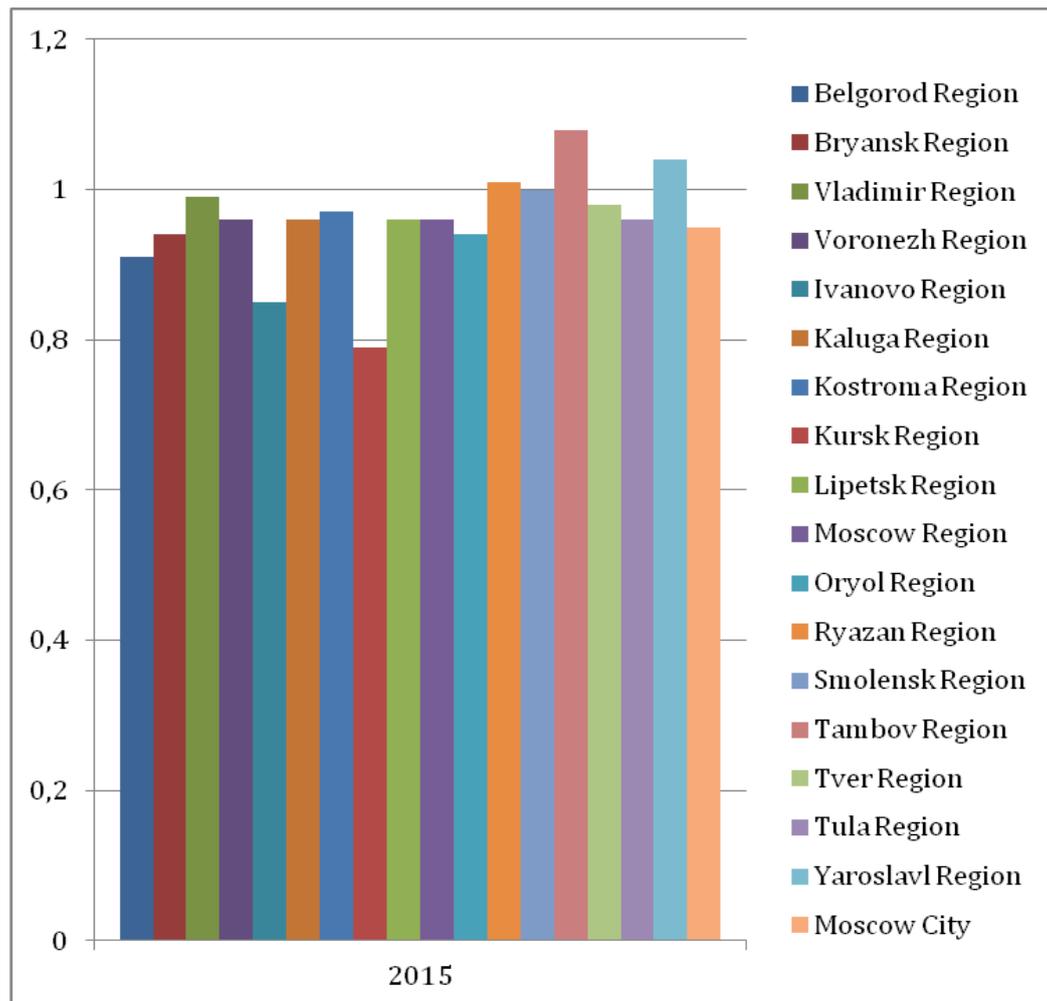


Figure 8. Dynamics of the discharge of contaminated sewage disposals into water bodies in the Central Federal District regions

Source: Russian Federal State Statistics Service

Conclusion

The analysis showed that the development of the analyzed regions of the CFD cannot be called sustainable. The research demonstrated that in spite of relatively stable economic growth in all analyzed regions, a number of problems in the social sphere development (primarily in the health and education sectors) have been identified. In the analyzed period of time, there is a serious deterioration in the basic indicators of education accessibility in the pre-school, elementary and secondary education segment, as well as a significant reduction in the medical care accessibility in the hospital segment. Even the most economically advantaged of the analyzed regions - Moscow city is currently experiencing a serious deterioration in the health and education situation.

Also, the dynamics of the environment indicators was not sustainable in part regions of the Central Federal District. In a number of regions there is a significant decrease in key environmental indicators. Thus the emission of pollutants into the air and discharge of contaminated sewage disposals into water bodies showed negative dynamics. As a result of the conducted research we identified the main problems of the Central Federal District from the sustainable development point of view.

The study was conducted for the most economically developed macro region of Russia. It is logical to expect that the development of other regions of the country could be even more unstable due to additional economic problems. Further studies can be devoted to the problem observing the dynamics of the main socio-economic and environmental indicators of other macro-regions of Russia.

The results of this study can be used by researchers, experts and regional authorities to identify major pain points in the Central Federal District development. Also research findings helped to determine the key directions of the management corrective actions. They give government bodies possibilities to create special public policies measures for the transition to sustainable development of Russian regions.

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THE CURRENT SITUATION OF SMALL AND MEDIUM SIZED ENTERPRISES IN GHANA

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Abstract: SMEs play a crucial role in economic growth by means of job creation, wealth generation, equitable distribution of income and socio-economic stability in developing countries like Ghana. In Ghana, it is believed to account for around 92% of businesses and contribute about 70% to Ghana's GDP. This study was undertaken to highlight the opportunities and challenges facing SMEs in Ghana. The overall current challenges are a high cost of utility, multiplicity of taxes, the depreciation of the national currency (Cedis), access to credit and the high cost of credit in their quest to access bank credit (loans) from financial and non-financial institutions to undertake various activities. Likewise, the growth of SMEs is further curtailed by the lack of management skill and training, the lack of access to the appropriate technology, limited access to international markets, weak institutional capacity and rules and regulations that hinder their expansion. These challenges continue to have an adverse impact on business confidence and therefore require immediate measures to create that conducive climate for doing business. Ghana is an attractive country because the factors of endowment are plentiful, the economic environment is suitable and the political situation is stable and this business ambience is a rarity among developing nations.

Keywords: business operations, challenges, competitiveness, Ghana, SMEs

Introduction

In both developed and developing economies, small and medium enterprises (SMEs) are considered as an engine for economic growth. These SMEs not only contribute to the growth of national GDP but also contribute to reduction of unemployment (Mullineux, 1997; Abor & Quartey, 2010). In the African continent, SMEs represent over 90% of private business and contribute to more than 50% of employment and of GDP in most African countries (UNIDO, 1999). A study conducted by Bastiat Ghana (2014) a liberal economy think tank shows that 92% of companies registered in Ghana are micro, small and medium scale enterprise (SMEs). SMEs are observed to contribute about 70% to Ghana's GDP and account for about 92% of businesses in Ghana (Hassbroeck, 1996; Berry et al., 2002). SMEs in Ghana are said to be a characteristic feature of the production landscape and have been noted to provide about 85% of manufacturing employment of Ghana (Aryeetey, 2001; (Hassbroeck, 1996; Berry et al., 2002). According to the study 85% of the SMEs offer employment in the manufacturing sector. It is observed that though there are so many initiatives to support the SMEs yet a number of enterprises seem not to find the usefulness and the benefit of such great initiatives (www.bastiatghana.org). The development of SMEs is seen as accelerating the achievement of wider economic and socio-economic objectives, including poverty alleviation (Cook and Nixon, 2000). SMEs therefore play crucial role in stimulating growth and contributing to poverty alleviation, given their economic weight in African countries including Ghana. This study examines the characteristics, contributions and the challenges of SMEs in Ghana. The study used a secondary data by the Association of Ghana Industries (AGI) Business Barometer Report to make its analysis. The Business Barometer Indicator (BBI) is an AGI proprietary tool that measures the level of confidence in the business environment and predicts short-term business trend. It is based on AGI's assessment of current economic conditions and perceptions and it simply expresses the state of the business climate numerically. The overall challenges for the past 3 years in the Ghanaian manufacturing, service and construction SMEs sectors, had been high cost of utilities, lack of access to credit and high cost of it, multiplicity, cedi depreciation, delayed payment among others. The business environment of an SME can considerably affect the growth and success of the business, while numerous reasons may contribute to the lack of growth in an SME. This hindrance can be the result of blockades that exist in the overall business environment.

The objectives of the study are: (i) To identify the current situation and challenges of SMEs in Ghana particularly from the manufacturing and service sectors and (ii) To highlight their contributions and to make recommendations to the current challenges.

Literature review and research background

The Definition of SMEs in Ghana

In the opinion of Kayanula and Quartey, (2000), in Ghana, there have been a range of definitions proffered for small-scale enterprises but the most commonly used criterion is the number of employees of the enterprise (Kayanula and Quartey, 2000). In applying this definition, confusion often arises in respect of the arbitrariness and cut off points used by the various official sources. The Ghana Statistical Service (GSS) in its Industrial Statistics considers firms with less than 10 employees as small-scale enterprises and their counterparts with more than 10 employees as medium and large-sized enterprises. However, the GSS in its national accounts proposed companies with up to 9 employees as SMEs (Kayanula and Quartey, 2000). Also, the value of fixed assets in the firm has also been used as an alternative measure for defining SMEs. However, in Ghana the National Board for Small Scale Industries (NBSSI) uses both the “fixed asset and number of employees” criteria in its measurement. It identifies a small-scale enterprise as a firm with not more than 9 workers, and has plant and machinery (excluding land, buildings and vehicles) not exceeding GHC10 million (Ghanaian Cedis). The Ghana Enterprise Development Commission (GEDC), on the other hand, uses a 10 million Ghanaian cedis upper limit definition for plant and machinery. It is important to caution that the process of valuing fixed assets poses a problem. Secondly, the incessant depreciation of the local currency as against major trading currencies often makes such definitions outdated (Kayanula and Quartey, 2000). Steel and Webster (1991), and Osei et al (1993) in defining small-scale enterprises in Ghana, applied an employment cut-off point of 30 employees. Nevertheless, Osei *et al* (1993) grouped small-scale enterprises into three categories, namely: (i) micro - employing less than 6 people; (ii) very small - employing 6-9 people; (iii) small - between 10 and 29 employees. According to Abor & Quartey (2010), a more recent definition of SMEs in Ghana is one given by the Regional Project on Enterprises Development Ghana manufacturing survey paper. The survey report classified firms into: (1) micro enterprises less than 5 employees, (2) small enterprises 5-29 employees, (3) medium enterprise 30-99 employees, and large enterprises 100 and more employees (cited in Abor & Quartey, 2010).

Characteristics of SMEs in Developing Countries

Fisher and Reuber (2000) itemized several characteristics of SMEs in developing countries under the broad headings: i) labour characteristics, ii) sectors of activity, iii) gender of owner and iv) efficiency. Given that most SMEs are one-person businesses, the largest employment category is working proprietors. This group makes up more than half the SME workforce in most developing countries; their families, who tend to be unpaid but active in the enterprise, make up roughly another quarter.

The remaining portion of the workforce is split between hired workers and trainees or apprentices. SMEs are more labour intensive than larger firms and therefore have lower capital costs associated with job creation (Anheier and Seibel, 1987; Liedholm and Mead, 1987; Schmitz, 1995). In terms of activity, they are mostly engaged in retailing, trading, or manufacturing (Fisher and Reuber, 2000). In Ghana, SMEs can be categorized into urban and rural enterprises. The former can be subdivided into organized and unorganized enterprises. The organized ones mostly have paid employees with a registered office, whereas the unorganized category is mainly made up of artisans who work in open spaces, temporary wooden structures, or at home, and employ few or in some cases no salaried workers (Kayanula and Quartey, 2000). Female entrepreneurs are mostly involved in sole-proprietorship businesses which are mainly micro-enterprises and as such may lack the necessary collateral to qualify for loans (Aryeetey et al, 1994; Abor and Biekpe, 2006). Measures of enterprise efficiency for example labour productivity or total factor productivity vary greatly both within and across industries. Firm size may be associated with some other factors that are correlated with efficiency, such as managerial skill and technology, and the effects of the policy environment. Most studies in developing countries indicate that the smallest firms are the least efficient and there is some evidence that both small and large firms are relatively inefficient compared to medium-scale enterprises (Little et al., 1987). It is often argued that SMEs are more innovative than larger firms. Many small firms bring innovations to the market place but the contribution of innovations to productivity often takes time, and larger firms may have more resources to adopt and implement them (Acs et al., 1999).

Contributions of SMEs to national economic development in Ghana

According to Abor and Quartey (2010), SMEs have been recognized as the engines through which the growth objectives of developing countries can be achieved. SMEs accelerate the rate of growth in low-income countries like Ghana guaranteeing income stability, growth and employment. They are able to withstand adverse economic conditions because of their flexible nature (Kayanula and Quartey, 2000). Since SMEs are labour intensive, they are more likely to succeed in smaller urban centres and rural areas, where they can contribute to a more even distribution of economic activity in a region and can help to slow the flow of migration to large cities. They also improve the efficiency of domestic markets and make productive use of scarce resources, thus facilitating long-term economic growth (Kayanula and Quartey, 2000). SMEs contribute to a country's national product by either manufacturing goods of value, or through the provision of services to both consumers and other enterprises. According to Abor & Quartey (2010), it has also been observed that enterprises are not just suppliers, but also consumers; and their role is very important because their demand for local raw materials as their industrial inputs, and other consumer goods, backed by purchasing power aid in stimulating economic activities in the country, as well as stimulating demand for their own goods and services.

Methodology

As regards the methodology, the study relied on secondary data collected from the three quarters statistics provided by the Association of Ghana Industries barometer index of Ghana. The three quarters provided statistics on the state of the SMEs in Ghana over a period of three years. The SMEs involved in the study were from both the production and service industries

Results

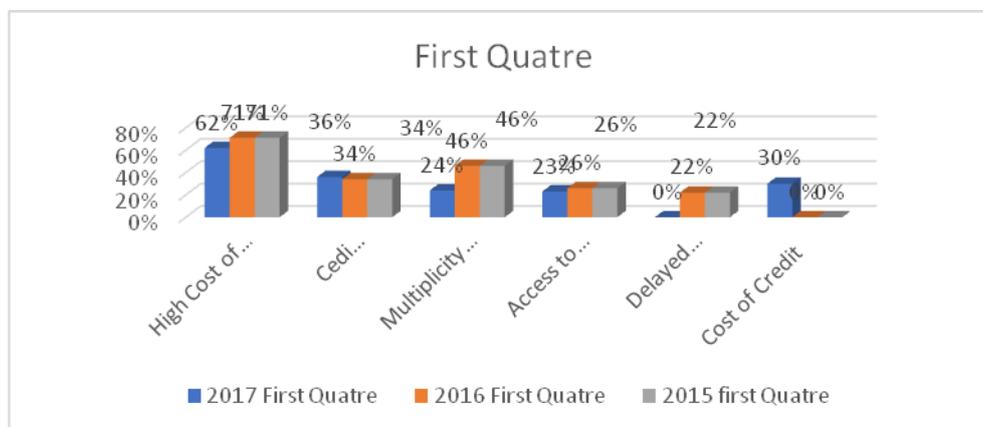


Figure 1. Overall Business Challenges (2015 -2017, 1st Quarter)

Source: AGI Business Barometer

Currently the highest overall challenge in the Ghanaian Business Environment from figure 1, (1st Quarter), high cost of utility (electricity) remains a priority challenge facing the industry. Business performance worsened in the quarter under review especially Q1, 2015 and Q1, 2016; this could be attributed to the power crisis which led to some industries laying off some of their staff as an interim measure to contain the situation Source of power generation has a major influence on energy pricing and the high cost of electricity can be ascribed largely to this assertion. A current generation mix of about 70 percent thermal and 30 percent hydro makes power production quite expensive. However, by comparison with the variable of utility alone, Q1, 2017 was relatively better than Q1 ,2016 and Q1, 2015 due to the fact that electricity was stable and expectations of electricity tariffs reduction. Taxation is inevitable but certain elements of the tax system can have adverse effects on the competitiveness of the business environment. Under the years Q1 review, taxes took the second position among the major challenges. For example new taxes such as the Energy Sector levies. The

exchange rate volatility as experienced in Q1, 2015 and Q1 2016, has extended into Q1, 2017 which seems a bit worsen over the previous years. Even though the Bank of Ghana Policy rate had dropped by over 500 basis points from the beginning of 2017, lending rates remain high, hovering over 30 percent, respondents opined that cost of credit is still a major difficulty for their business as compared to Q1,2015 and Q1,2016. Similarly, access to credit does seem to improve according to 23 percent of respondents for 2017 Q1 as compared to 2015 Q1 and 2016 Q1. In 2017 Q1, Delayed Payment seemed to have reduced as a major challenge, which means it received the needed attention as compared to 2016 Q1 and 2015 Q 1 which was worrying.

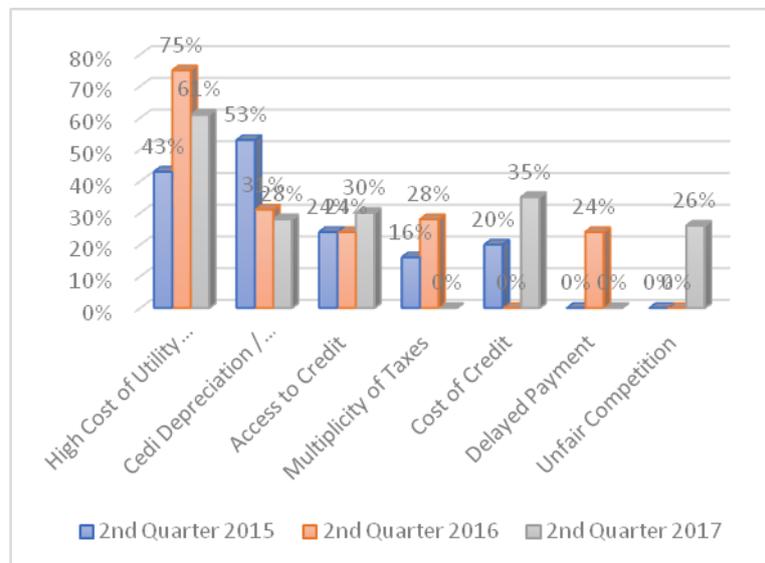


Figure 2. Overall Business Challenges (2015 -2017, 2nd Quarter)

Source: AGI Business Barometer

In Q2, HIGH cost of utility was still leading among the major challenges of SMEs, especially in 2015 as 75 percent respondents surveyed as shown in Figure 2. This may undermine economic recovery. It is interesting to note that cedi depreciation ranked 2nd in Q2, and Delayed Payment and Unfair Competition dropped to 6th and 7th positions respectively. Consistent with the tax reliefs implemented in 2017 Q2, Multiplicity of Taxes is still among the major challenges of SMEs. Reductions in policy rate in 2017 have failed to drive down Cost of credit while poor Access to credit does not seem to improve.

Discussion. Challenges of SMEs in Ghana

Regardless of the potential role they play in developing countries including Ghana. These factor that serve as bottlenecks to the ability of SMEs to realize their full potential include lack of managerial skills, lack of adequate finance, equipment and appropriate technology, regulatory issues, and access to international markets (Steel & Webster, 1991; Aryeetey et al, 2001; Abor & Quartey, 2010). With technology, SMEs often have difficulties in gaining access to appropriate technologies and information on available techniques. In most cases, SMEs utilize foreign technology which may sometime be acquired through leasing or other form of shared ownership. These arrangements are mostly because of the inability of SMEs to make outright purchase of the appropriate technologies (Aryeetey et al. 2001; Abor & Quartey, 2010). Additional significant problem that SMEs often face is the lack of access to capital (Lader, 1996). Lack of adequate financial resources places significant constraints on SME development. Abor and Biekpe (2006; 2007) observe that, notwithstanding the recognition of the role of SMEs in the development process in many developing countries, SMEs development is always constrained by the limited availability of financial resources to meet a variety of operational and investment needs. A study by the World Bank found that about 90% of small enterprises surveyed stated that credit was a major constraint to new investment (1993; cited in Abor & Quartey, 2010). Also it is found that there is limited access to financial resources available to

smaller enterprises compared to larger organizations and the consequences for their growth and development. The role of finance has been viewed as a critical element for the development of SMEs (Cook & Nixon, 2000). According to Parker et al.,1995; in Kayanula & Quartey 2000, a large portion of the SME sector does not have access to adequate and appropriate forms of credit and equity, or indeed to financial services more generally. The lack of adequate managerial skills is a significant constraint on SME development. SMEs may tend to attract motivated managers; they can hardly compete with larger firms. The scarcity of management talent is prevalent in most countries in the West African sub region including Ghana. The lack of support services or their relatively higher unit cost can hamper SMEs' efforts to improve their management. Consulting firms are often not equipped with appropriate cost-effective management solutions for SMEs. Also, despite the numerous institutions providing training and advisory services, there is still a skills gap in the SME sector as a whole (Kayanula & Quartey, 2000; cited in Abor & Quartey, 2010). The reason is that the entrepreneurs cannot afford the high cost of training and advisory services. However, there are some who do not find it necessary to upgrade their skills due to complacency (Abor & Quartey, 2010). Another serious challenge to SME growth is regulatory constraints. Although wide ranging structural reforms have led to some improvements, prospects for enterprise growth remain to be addressed at the firm-level.

The high start-up costs for firms, including licensing and registration requirements, can impose excessive and unnecessary burdens on SMEs. The high cost of settling legal claims, and excessive delays in court proceedings adversely affect SME operations (Abor & Quartey, 2010). Meanwhile, the absence of antitrust legislation favors larger firms, while the lack of protection for property rights limits SMEs' access to foreign technologies (Kayanula & Quartey, 2000). Previously insulated from international competition, many SMEs are now faced with greater external competition and the need to expand market share. However, their limited international marketing experience, poor quality control and product standardization, and little access to international partners, continue to impede SMEs' expansion into international markets (Aryeetey et al. 2001; Abor & Quartey, 2010). One of the obstacles to SMEs now in Ghana is the ability to conduct market research to support their operations as a guide to work scientifically for the success of their venture. High cost of electricity in Ghana and its erratic supply is another challenge to SMEs. Energy or power is not evenly and readily available for operating businesses in Ghana and yet very expensive for industry. According to industry watchers, Ghana is one of the countries whose industry pay more for power despite the key employment-creation role it plays.

Conclusion

This study has reviewed the situation of SMEs in Ghana, various definitions of SMEs and also discussed the characteristics, contributions of SMEs to economic development and the constraints to SME development. In reviewing the definitions of SMEs, it was concluded that there is no single, universal, uniformly acceptable definition of SMEs. Several indicators have been used to define the SME sector in Ghana. The most commonly used definition is the number of employees of the enterprise. The development of SMEs is always constrained by a number of factors, the major Overall Challenges have been High Cost of Utility, Cedi Depreciation/ Exchange rate volatility, High Cost of Credit, Difficulty in getting access to Credit, Multiplicity of taxes, Delayed payments, Unfair Competition on the Market, for the past 3years (2015-2017). It is suggested that, banks must see the SMEs as development partners and develop relationships with them by nurturing their businesses, as well as providing them the convenient environment to develop their businesses. Also, SME should be made to enjoy tax-holidays for a period of 5years to enable them build the firms to a competitive level and to also enable them employ the right management staff. There should be a national legislation that defines SMEs in Ghana to make it easier for researchers. Government should give start up businesses a special utility tariffs rebate, make business policies implementable that will favour SMEs and promote more sustainable capacity development for SMEs.

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PROFESSIONAL ACTIVITIES OF THE POPULATION OF POLAND AND THE FORMS OF THEIR EMPLOYMENT

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Abstract: In Poland, the historically low level of unemployment may create the impression that the labour market is in a very good condition. However, its weaknesses are actually hidden in a very high inactivity rate and very low professional activity. The national labour market will remain in poor condition if there are no major structural reforms – on the one hand, stimulating vast social groups to improve qualifications while on the other, encouraging enterprises to employ people with a lower education level. The objective of the considerations presented in the paper will be to identify some possible directions of the impact of demographic changes on professional activity. The author will also focus attention on the employed, the forms of their employment as well as analyze the inactivity rate and the professional activity rate, which determine the attractiveness of the labour market. The author will devote special attention to indicating the reasons for inactivity in different selected cross-sections. The applied research methods will be based on literary studies and the analysis of the statistical data by Central Statistical Office (GUS), Eurostat and other studies.

Keywords: labour market, unemployment rate, inactivity

Introduction

Demographic changes in Poland and around the world show the ageing process of the society, directly related to a drop in the fertility rate, an increased average age for giving birth to a child and a decrease in the mortality rate and the related rise in the average life expectancy. The changes cause that fewer and fewer working people support a growing number of professionally inactive people.

In many countries, a lot of programs are implemented, which attempt to prevent these changes, among others, assuming a raise in the employment rate; particularly, the aim is to increase the employment rate for men and women, young people and older workers, among others, by introducing a larger number of people into the labor market.

Nowadays, employers must become aware of the fact that their advantage over competitors will depend on the effective use of the potential of mature workers, their knowledge and skills as well as the energy and determination of women. Therefore, part-time jobs and flexible working hours meeting the expectations of older people and favorable for reconciling parenthood with work will contribute to the benefits for both parties: enterprises and the groups listed.

The objective of the considerations presented in the paper will be to identify possible directions of the impact of demographic changes on professional activity. The author will also focus her attention on employees, the forms of their employment and analyze the professional activity and inactivity rates, which determine the attractiveness of the labor market. The conducted analysis will allow for responding to the research question: What groups Poland ought to direct its activities to in order to increase the level of professional activity to equalize the level of living standard in Poland with the one in the countries of Western Europe.

Professional activity in Poland

For several years, in Poland, there have been observed some distinct changes in vital events which have led to significant changes in the demographic structure. The changes indicate the ageing process of the society, directly related to a drop in the fertility rate, an increased average age for giving birth to a child and a decrease in the mortality rate and the related rise in the average life expectancy. The changes cause that fewer and fewer working people support a growing number of professionally inactive people.

Table 1 indicates that, in the projected period, there is expected a large, continuous decline in the pre-working age population by more than 2 million, of whom over 1.2 million in cities whereas almost 800 thousand in rural areas. (Population projections for years 2014-2050, 2013, p. 147) Only within 15 years – between 2020 and 2035 – the number of people aged 0-17 will decline by over 1.2 million. In turn, much smaller changes in the forecasted number of the population will appear within the first decade (2013-2020) and the last one (2040-2050).

Table 1 The projected number of the population by the economic age groups by the “old” and the “new” retirement age in thousand

Specification	2013	2020	2035	2050
Pre-working age 0-17	6 995	6 733	5 568	4 963
Mobile working age 18-44	15 338	14 219	10 725	9 331
Immobile working age 45-59/64	9 084	8 568	9 990	7 252
Immobile working age – “movable” ^a	9 210	9 601	11 844	9 717
Post-working age 60+/65+	7 078	8 617	10 193	12 404
	6 952	7 585	8 340	9 939

a - the term refers to the changing (by 2040) retirement age, thus, the boundaries of divisions of many classifications for immobile and post-working age are not stable

Source: *Prognoza ludności na lata 2014-2050, GUS, Warszawa 2013, p. 148*

Similar trends can be observed in the development of the number of the mobile working-age population, i.e. aged 18-44. In addition, for all the years of the forecast, until 2050, there is expected a decline in the size of this population by 6 million, with the changes that will intensify in years 2020-2035, which is a very bad signal. Among the immobile working age population and post-working age population, there will be observed a variable trend associated with an increase or a slight decline. The number of the immobile population will increase in the subsequent decades until 2035-2040. By 2035 the number of the post-working population (according to the new Pensions Act) will increase to the level of 10.1 million people. In the following years, until 2050, there is expected a further increase to the level of 12.4 million people. The total number of the retirement age population in Poland will increase from about 7 million in 2013 to nearly 12 million in 2050.

Professional activity of the population is identified with the performance or readiness to perform work in exchange for which one obtains the equivalent in the form of wage or a non-wage form (Kotlorz 2007, p. 12; Furmańska-Maruszak 2014, pp. 16-17); this includes all people aged 15 and over, who can be divided into professionally active and inactive. Professionally active people are both the employed and the unemployed. Employed people are the ones employed as hired laborers, the ones that worked in their own (or leased) agricultural holding, conducted their own business outside agriculture, helped (with no remuneration) in running a family farm or a family business outside agriculture. The unemployed population is the people aged 15-74, who simultaneously fulfilled three conditions (Kotlorz 2007, p. 12; Furmańska-Maruszak 2014, pp. 16-17):

- were unemployed in the research period,
- actively searched for a job,
- were ready (capable) to start a job.

In turn, the professionally inactive population, i.e. being outside the labor force, is the population not searching for a job for different reasons, since they are retired, ill and struggling with disabilities, learning or upgrading skills, discouraged because they are convinced they will not find a job and they fulfill different family or household duties. (Zwiech 2016, p. 213)

The Figures 1 indicate that, in the surveyed years, the total number of people professionally active dominated men constituting over 9.5 million people, the number of women amounted to almost 2 million less than the number of men. There dominated the professionally active population in cities – over 10 million people, compared to almost 7 million professionally active people in rural areas.



Figure 1. Professionally active population – the unemployed – in thousand in 2014 and III quarter of 2017

Source: *Aktywność ekonomiczna ludności Polski, GUS, Warszawa 2017, p. 42*

The total number of the employed gradually increased from the level of 15 862 thousand to 16510 thousand people in III quarter of 2017 and this concerned both women and men, people living both in cities and rural areas, which was a positive phenomenon. When it comes to the unemployed, their number steadily decreased, from the level of 1.5 million people in 2014 to 818 thousand people in III quarter of 2017. The differences in the number of unemployed women and men were at the level of 100 thousand with the general clear downward trend for both sexes. There were more unemployed people in cities than in rural areas, in 2014, in cities, there were almost 1 million people and in the last surveyed year, there were only almost 500 thousand people.

In turn, while considering the professional activity rate, it reached its maximum value in I quarter of 2007, at the level of 53.2% (Statystyki rynku pracy, <http://rynekpracy.org/20.03.2018>), which means that, at that time, the rate was higher only by over 3 percent, which was mainly due to low professional activity among youth and older people, which is more extensively shown in Table 2.

Table 2. Professional activity rate in years 2014 – III quarter of 2017 in %

Specification	Professional activity rate			
	2014	2015	2016	III kw. 2017
Total	56.2	56.2	56.2	56.7
15-24	33.9	32.8	34.5	35.2
25-34	85.6	85.6	85.4	84.2
35-44	87.9	87.6	87.1	87.4
45-54	81.3	81.7	81.8	82.8
55-59/64	55.8	56.7	58.5	61.4
60/65 lat i więcej	7.0	7.4	7.8	9.1
Men	64.7	64.6	64.8	65.7
Women	48.5	48.4	48.3	48.4
Cities	56.2	56.3	56.2	56.8
Rural areas	56.3	56.0	56.2	56.5

Source: *Aktywność ekonomiczna ludności Polski, GUS, Warszawa 2017, p. 76*

The highest level of the professional activity rate was recorded in the age group of 25-54 at the level of just over 80 percent. In these groups, people usually finished their education and they were statistically more rarely affected by illnesses keeping them away from the labor market. In the age group of 15-24, the rate was at the level of just over 30 percent, which was a poor result since this group age as the young, strong one should be characterized by a higher level, however school, studies or financial support from parents must have affected that situation.

In turn, the age group of 60/65 and more was characterized by the poorest result, which was associated with receiving retirement or disability pension by this group or a large number of people exposed to diseases. These factors had a dissuasive effect on the process of searching for and undertaking further work. This rate took different values for the same period for sexes, there was noticeable a much lower rate for women than for men. It was associated with the model of motherhood, settled in our culture. (Współczynnik aktywności zawodowej, <http://rynekpracy.org/20.03.2018>) In cities and rural areas, the rate was at a similar level of 56%, which indicates there was a similar number of professionally active people in relation to the total of the population.

Summing up, low professional activity in Poland is significantly due to little flexibility of employers in Poland who rather unwillingly, compared to other countries of the EU, employ part-time workers. This form of employment would allow them to combine work with raising children (or care for older people) (Gehring, Klasen 2017, pp. 15-18; Bezrobocie znika, czas zająć się aktywnością, <https://www.bankier.pl>, 24.03.2018).

It is worth paying attention to the duration of working life indicator in Poland which increased each year from the level of 30.2 years in 2006 to 32.9 years in 2016 (Table 3). In spite of the fact that this period was increasingly longer each year, it was still shorter than the average for the countries of the European Union (Aktywność zawodowa Polaków poniżej średniej UE, <https://www.bankier.pl>, 25.03.2018), which in detail is presented in Figure 2.

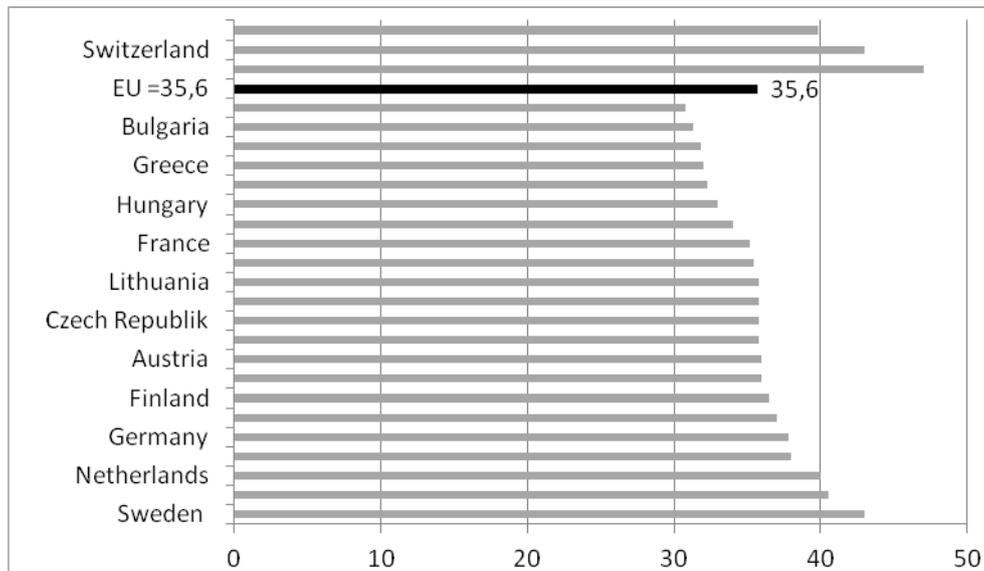


Figure 2. 1 The average duration of working life in 2016 year

Source: ec.europa.eu/eurostat

In 2016 the duration of working life indicator in the European Union amounted to 35.6 years, with the highest value for Sweden (41.3 years), followed by Denmark and the Netherlands (40.3 years). Also the British, Germans, Estonians, Finns, Portuguese, Austrians or Cypriots perform their duties longer than the average for the European Union. On the other side, there were the countries where the duration of working life indicator was the lowest. These countries particularly included: Italy (31.2 years), Bulgaria (31.7 years), Croatia (32.1 years), Romania (32.4 years), Greece (32.5 years), Belgium (32.6 years), and also Luxembourg and Poland (32.9 years each). (Aktywność zawodowa Polaków poniżej średniej UE, <https://www.bankier.pl>, 26.03.2018)

Table 3. The duration of working life indicator in Poland in %

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Indicator	30.2	30.2	30.6	31.0	31.6	31.8	32.1	32.2	32.6	32.6	32.9

Source: Bankier.pl based on the data by Eurostat

The duration of working life indicator in Poland increased by 1.8 years comparing the year of 2006 to 2016 and it was lower than the average for the countries of the European Union. This result was due the duration of working life of women in Poland in 2016, which amounted to 33.1 years, which was an increase by 2.5 years compared to 2006 and the duration of working life of men in 2016, which amounted to 38 years, which was an increase by 1.1 years compared to 2006. The duration of working life increased faster for women than men (Aktywność zawodowa Polaków poniżej średniej UE, <https://www.bankier.pl>, 27.03.2018), which was associated with the change in their lifestyle, greater willingness to get a job and thus gaining financial independence.

Forms of employment and the employed

Over the years, the most popular and typical form of employment relationship between the employer and the employee was an employment contract. In the context of an increasingly complex and dynamically changing labor market, the emergence and dissemination of new forms of employment, employers more often concluded civil law contracts or suggested the so called self-employment. Starting from I quarter of 2016, there were introduced additional questions referring to the forms of employment to the Labor Force Survey (Badania Aktywności Ekonomicznej Ludności (BAEL)); the results are presented in Table 4.

Table 4. The employed by selected forms of employment in 2016 and III quarter of 2017 (in the main place of work)

Specification		Hired laborers by the type of contract				The self-employed not employing hired laborers	
		total	including			total	including the ones working exclusively for one client/ordering party
			employment contract	contract of mandate	specific task contract		
in thousand							
Total	2016	12974	12 117	403	37	2263	136
	III quarter 2017	13113	12 264	396	38	2235	146
Men	2016	6894	6421	190	20	1519	89
	III quarter 2017	6933	6454	184	21	1534	107
Women	2016	6079	5696	214	17	744	47
	III quarter 2017	6180	5810	212	17	701	39
Cities	2016	8479	7927	285	33	911	85
	III quarter of 2017	8506	7959	295	34	951	111
Rural areas	2016	4495	4190	118	-	1352	51
	III quarter of 2017	4607	4305	101	-	1285	35

Source: *Aktywność ekonomiczna ludności Polski, GUS, Warszawa 2017, p. 33, Aktywność ekonomiczna ludności Polski, GUS, Warszawa 2016, p. 32*

While analyzing the data included in Table 4, it can be seen that the most popular form of employment was work based on the employment contract, as much as 93% of the total of hired laborers: women and men. A similar situation concerned the total of the population living in cities and in rural areas for whom the percentage amounted to 93%.

Under other forms of employment than the employment contract (contract of mandate, specific task contract, management contract, mixed form, another civil law contract), there were employed 475-479 thousand people, i.e. 3.6-3.7% of the total of hired laborers. The majority of people declaring employment in 2017 under such forms was women – 51.5% (compared to 48.5% of men), whereas when taking into account the place of residence, in that group, there dominated urban residents (71.9% compared to 28.1% of rural population). On the other hand, in 2016 a slightly greater share of hired laborers declaring employment under such forms occurred among men – 50.1% compared to 49.7% for women, whereas when taking into account the place of residence, in that group, there dominated working urban residents (76.0% compared to 24.0% for rural population.)

Out of the total of the population working under other forms than the employment contract, 396 thousand – 2017 (403 thousand – 2016) were the people employed under the contract of mandate, which amounted to 83.4% - 2017 (84.1% 2016) of that population and 3.0% - 2017 (3.1% in 2016) of the total of hired laborers. Analogically, the percentages among women and men amounted respectively to 89.8% and 3.4% and 77.3% and 2.7% in 2017 (86.6% and 3.5% and 81.5% and 2.8% in 2016). The share of rural population employed under the contract of mandate in the total number of people working under unusual forms of employment amounted to 88.6%, (87.4% - 2016) and in the total number of hired laborers - 2.2%, (2.6% - 2016) whereas, among urban residents, the analogical percentages amounted to 81.7% and 3.5% in 2017 (82.6% and 3.4% in 2016). The people employed under the specific task contract amounted to 0.3% of the total number of hired laborers in the surveyed years 2016-2017.

Another unusual form of performing work is the so called self-employment, which, in the presented research by BAEL, includes the information on people working on their own who work exclusively for one client/ordering party. Thus, the people working exclusively for one client (ordering party) amounted to 6.5% in 2017 and 6.0% in 2016 of those working on their own, not employing hired laborers and this phenomenon related to men (5.9 – 7.0% in 2016-2017) and women (5.6% - 6.3% in 2016-2017) and urban residents (9.3- 11.7% in 2016-2017) rather than rural population (2.7% - 3.8% in 2016-2017).

When analyzing the total number of hired laborers by the employment contract, it can be stated that the number steadily grew from the level of 12 612 thousand people to the level of more than 13 113 thousand people. Predominantly, those were permanent employment contracts with the number of over 9694 thousand and 3419 thousand fixed-term contracts. Men, compared to women, mostly signed permanent employment contracts (over 5138 thousand contracts in 2017) and fixed-time contracts – about 1 795 thousand contracts. (Figure 3)



Figure 3. Hired laborers by the type of employment contract and the level of education in years 2014- III quarter of 2017

Source: *Aktywność ekonomiczna ludności Polski*, GUS, Warszawa 2017, p. 151

The extent and reasons for the inactivity of Poles

Since the beginning of the political transformation in Poland, one of the most serious social and economic problems which Poland coped with was unemployment. The fall of unprofitable enterprises, the economic transformation of the country and the disclosure of the problem of hidden unemployment caused that there was a rapid increase in the number of people who, although wishing to work, were not able to find a job. At the worst time, on the eve of the Polish accession to the European Union, there was 20% of professionally active Poles who were unemployed. (*Bezrobocie znika, czas zająć się aktywnością*, <https://www.bankier.pl/>, 28.03.2018)

Nowadays, those times seem to be only dark memories. According to GUS (Central Statistical Office), the unemployment rate steadily declined in years 2014-2017, reaching the historically low level of 4.7% in 2017. While analyzing the level of unemployment by age, it can be observed that the highest level of unemployment was in the group of people aged 15-24 reaching 14.7%, (Kobylińska, Rollnik-Sadowska, Samul 2017, pp. 563-568) followed by the age group of 25-34. There was a slight difference between unemployed women and men, with a higher unemployment rate among men, though. In turn, unemployment in rural areas in years 2014-2016 was slightly higher than in cities, only in the last surveyed year of 2017 the trend was opposite. (Table 5)

Table 5. Unemployment rate in % in Poland in years 2014- III quarter of 2017

Specification	Unemployment rate in %			
	2014	2015	2016	III quarter of 2017
Total	9.0	7.5	6.2	4.7
15-24	23.8	20.8	15.9	14.7
25-34	9.8	8.2	6.3	4.8
35-44	6.7	5.6	4.1	3.8
45 and more	6.7	5.6	3.9	3.3
15-64	9.1	7.6	5.6	4.8
Men	8.5	7.3	6.1	4.5
Women	8.7	7.7	6.2	4.9
Cities	8.7	7.2	5.9	4.8
Rural areas	9.5	8.0	6.5	4.7

Source: *Aktywność ekonomiczna ludności Polski*, GUS, Warszawa 2017, p. 94

The unemployed, both women and men, as the reasons for the discontinuation of work, find the discontinuation of a temporary job, occasional seasonal job, liquidation of a job or a position or unsatisfactory financial conditions and unsatisfactory working conditions.

In Poland, the aforementioned historically low level of unemployment (4.7% in 2017) may create an impression that the Polish labor market is in a very good condition. There is a higher level of unemployment, among others, in the Netherlands (5.1%), Denmark (5.7%) or Sweden (6.6%). However, such a low level of unemployment may paradoxically become to be worrying rather than comforting, particularly if one takes into account a very high inactivity and activity rate of Poles.

The professionally inactive people are the ones who do not have a job and are not looking for it. This is the population outside the labor force, these are all people aged 15 and over who were not classified as the employed or unemployed. Among inactive people there can be identified the group of the discouraged ones including those not searching for a job since they are convinced they would not find it.

The Labor Force Survey (Badanie Aktywności Ekonomicznej Ludności) indicates that in the surveyed years there was a decline in the number of the professionally inactive population, only in 2015 there was recorded its slight increase. (Alarmujące dane z rynku pracy. Aktywność zawodowa Polaków jest niższa niż Greków, <http://forsal.pl/>, 28.03.2018) In total, the number of those professionally inactive was at the level of over 13 thousand, which amounted to more than 43% of the total population aged 15 and over. Among the professionally inactive there dominated women whose population amounted to more than 8 thousand people (i.e. over 62% of the total population). The majority of inactive women had junior high school education, post-secondary education and secondary vocational education and also basic vocational education. (Aktywność ekonomiczna ludności Polski 2017, p. 37) The inactive population in cities of about 8 thousand people was larger than in rural areas of more than 5 thousand people. (Figure 4)

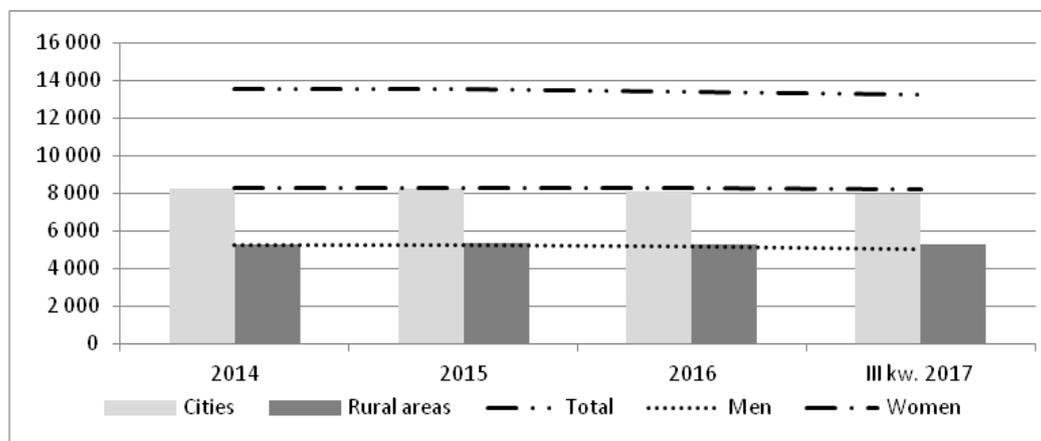


Figure 4. The inactive population in years 2014- III quarter of 2017

Source: *Aktywność ekonomiczna ludności*, GUS, Warszawa 2017, p. 27

The report by the Economic Institute of the National Bank of Poland indicates that since 2006, the number of older people has been steadily growing and the aging of the society has become to permanently and negatively affect the labor supply. (Niewiadomska 2016, pp.122-124) The data by GUS (Central Statistical Office) clearly indicate that last year there were 29 pre-working age and 33 post-working age people per each 100 working age people. This means that the potential human resources that will enter the labor market are already smaller than the pool of people that are leaving it and thus are entering the retirement age, which is caused by the aging of the society. (Nie potrzebujemy imigrantów? Mamy miliony "uśpionych" Polaków, <https://businessinsider.com.pl/28.03.2018>)

The hope for restoring the balance is the activation of those inactive. (Coletto, Guglielmi 2018, pp. 329-330) In Poland, there is a reserve pool in the form of 2 million people who are outside the labor market due to the reasons other than health condition or entering the retirement age. Table 6 indicates that the other reasons for inactivity include: education, upgrading qualifications, or family and household duties and resentment due to ineffectiveness of searching for a job.

Table 6. The inactive by the reasons for inactivity in years 2014- III quarter of 2017

Specification	Total	People not searching for a job including by the reasons for not looking for a job				
		resentment due to ineffectiveness of searching for a job	education, upgrading qualifications	family and household duties	retirement	illness, disability
2014	13446	533	2632	1542	6636	1862
2015	13379	466	2643	1673	6560	1815
2016	13321	391	2417	1830	6691	1794
III quarter of 2017	13169	318	2235	1899	6838	1686

Source: *Aktywność ekonomiczna ludności Polski, GUS, Warszawa 2017, p. 177*

The reasons affecting the extent of inactivity, among others, include (Weir 2003, p. 299):

- 1) the level of wages provided in the economy,
- 2) preferences in the field of education,
- 3) family model,
- 4) the possibility to find a job,
- 5) the existing regulations in the pension plan.

In turn, according to the Labor Force Survey (LFS), inactivity is affected by three main reasons (Trinczek 2008, p. 4):

- 1) family duties of women,
- 2) a higher share of women aged 15-24 in the process of education, in particular in receiving higher education,
- 3) the acquisition of pension rights.

The phenomenon of inactivity has been in a group of the most important problems of the Polish labor market for many years. This is mostly determined by the scale of this phenomenon and the closer analysis of the inactive population, which indicates a significantly larger share of older people than in other European countries, which, in the context of the ongoing demographics processes, may aggravate the problem of the low extent of using labor resources (Niewiadomska 2013, p. 103).

Conclusion

Since the beginning of the political transformation in Poland, one of the most frequently discussed problem was unemployment. Professional activity rates remained in its background. For this reason, politicians caring about unemployment statistics often encouraged thousands of people to end their professional activity.

Nowadays, Poland can no longer afford to ignore the problem of low level of professional activity. In order to equalize the standard of living in Poland with the one in the countries of Western Europe, the emphasis should be put on the activation of women and older people. (Bieszk-Stolorz 2017, pp. 733-735) The initial diagnosis of the reasons for inactivity is that these people do not work due to childcare and because they are retired or limited by illness or disability. There is a growing importance of retirement with age, which for the people reaching retirement becomes the major reason for stopping working. (*Nie potrzebujemy imigrantów? Mamy miliony "uśpionych" Polaków*, <https://businessinsider.com>, 28.03.2018) The low rate of professional activity of women and the elderly is also associated with family responsibilities, which is why this problem requires further research.

There are quite a lot of potential employees in a group of the youngest Poles. The professional activity and employment rates among people aged 15–24 are by 25% lower than the average in the EU and as the presented analysis indicates the inactivity of the youngest people is most frequently associated with education since, in Poland, the model of combining education with professional work is not very popular. Young people most frequently enter the labor market only after completing formal education whereas, in many countries of the EU, students work almost more than twice as often as in Poland.

In summary, Poland to improve the low level of activity should focus on the reform of social and pension systems, should combat all forms of discrimination on grounds of age, as well as develop a positive attitude and motivation of older people to encourage them to increase their own activity.

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ENTREPRENEURSHIP EDUCATION AT SLOVAK UNIVERSITY OF AGRICULTURE IN NITRA: A FOCUS GROUP STUDY

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Abstract: Entrepreneurship education is one of the most pertracted topics among universities. It is no longer merely associated with the economically and managerially oriented study programs, but is also increasingly being addressed in connection with technical and other non –economic study programs. The herein paper deals with the problem of entrepreneurship education in the two faculties of SUA Nitra. The focus group of qualitative research conducted was designed as a part of complex international research. The results of this area of research may be summarized in several parts based on six research questions. Future graduates express their notions on the personality of a successful entrepreneur and entrepreneurial spirit. They also describe the skills, knowledge and abilities which are according to them connected with a successful entrepreneur. Last but not least, they expressed their opinions on the entrepreneurship education they receive during their studies at SUA and recommend some suggestions for its improvement in the future.

Keywords: entrepreneurship, focus group, abilities, skills, education, Slovakia

Introduction

One of the missions of the 21st century University is therefore to encourage the social and economic development of its surroundings through venture creation training and entrepreneurship development; published work, however, offers conflicting opinions about whether or not entrepreneurship can be taught (Barba-Sánchez and Atienza-Sahuquillo, 2017). Some researchers highlight the importance of motivation for run-ning a business and therefore question whether teaching can enable this motivation to emerge (Colette, et al., 2005); others, meanwhile, believe that this entrepre-neurial motivation may be developed with specific entrepreneurship education (Souita-ris, et.al., 2007). European countries also realize how entrepre-neurship can bring benefits to their economy. Bringing entrepreneurship education to the society is one of the steps to boost up economy. When the knowledge is delivered to the students, it automatically leads to the effectiveness of the program and finally, it can create young entrepreneurs in the future. To be good entrepreneurs, youth should know about risks and master them (Hj Din, Anuar and Usman, 2015). Wee, et al., (1994) state that “Successful entrepreneurs are not gamblers; they take calculated risk...commonly referred to as risk-takers...” So, the higher learning level is the best platform to train the youth to be risk-takers so that they can survive in the business world.

Methodology and Data

This paper represents the Slovak part of international research project “Innovative entrepreneurship education - necessary precondition for future prosperity of V4 re-gion “supported by the Visegrad Fund. The form of research implementation and its methodology was selected by the international team of experts. This part of research deals with the problem of entrepreneurship education from the viewpoint of students and was realized in form of focus group (Bloor and Wood, 2006; Flick, 2009). Research was designed into six phases (figure 1), derived from Hair et al. research realized in 2000.

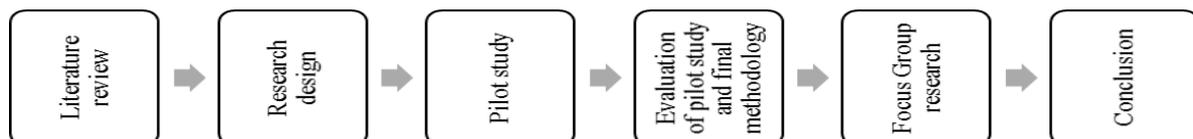


Figure 1. Research design

Source: own processing on the base of Hair et, al., 2000

The pilot study was carried out by the Head of the international working group and presented to the research team at a project meeting. Subsequently, inter-national research was carried out in the V4 countries and aggregate results was pro-cessed into national reports and international monograph (Egerová, et al., 2016)

This part of research was realized between March and October 2015 on the sample of selected students from Slovak university of Agriculture in Nitra. Research design in-cludes daily students of economic oriented study programs (students from Faculty of Economics and Management) and students of non economic study programs (students from Technical Faculty). From both faculties, students of final year of their study was selected. These students are close to their graduation and starting own business is ac-tual topic for them because it is one of their live opportunities after finishing university. According this students of 3rd year of bachelor study and 2nd year of engineer study were participated. Within each group (faculty), five separate surveys with ten to seven-teen participants were conducted, depending on the size of the study groups involved (Table 1). All focus groups were conducted under the supervision of the presenter and a pedagogue.

Table 1. The design of realized focus group research

Students of economic oriented study programes			Students of non economic oriented study programes		
Focus Group no.	Date of research	Number of participants	Focus Group no.	Date of research	Number of participants
FG 1	09/2015	11	FG 6	03/2015	14
FG 2	09/2015	12	FG 7	03/2015	15
FG 3	09/2015	17	FG 8	09/2015	12
FG 4	09/2015	10	FG 9	09/2015	11
FG 5	09/2015	12	FG 10	10/2015	13

Source: own processing

The main goal of the research was to find out, if students feel to be ready for starting business after their graduation. And how their evaluate entrepreneurship education acquired by their university education process. Last but not least some recommendations for improving education process was required.

The research was carried out on the basis of a predetermined framework scenario, which includes the list of main research questions as well as its rules and ethical as-pects. The main research questions were as following:

1. What do you understand under the terms entrepreneur and education for entre-preneurship or entrepreneurial spirit?
2. What necessary knowledge should graduates have to start their own business?
3. What is your opinion about your readiness for entrepreneurship after finishing the university?
4. Are you considering starting your own business after graduation?
5. Do you have enough information for starting a business?
6. Do you have any suggestions, ideas or recommendations how to improve preparation if young people - university students - for entrepreneurship?

The Focus Group method can be defined as a form of qualitative research which based primarily on group discussion. It is moderated by the researcher and it utilizes group interaction to obtain data and views of participants that are more difficult to reach out-side the group (Morgan, 2001; Bloor and Wood, 2006). The most suitable number of participants in the group is 6-8 (Patton, 2002), respectively 6-10 (Morgan, 2001). When determining the number of people in the group, we have to take into consideration the degree of their interest, the topic scope or the moderator's extent to of involvement in discussion. The moderator as a representative of the research team is irreplaceable in the discussion, and its capabilities can strongly influence the quality of the data ob-tained (Švaříček and Šed'ová, 2007). In the phase of analyzing and interpreting the data Kidd and Parshall (2007) suggest searching the areas of consent and controversial points. Disagreeable topics should be also straightforwardly identified. But researcher have to distinguish whether this consent or disapproval is just a consequence of the group's collective pressure on the opinion of one.

Focus groups were analyzed separately for economics and non-economics oriented students (economics and technical faculty). As a method for identifying, analyzing and reporting themes within data we used five step thematic analysis (Brown and Clarke, 2006). At the beginning researchers

achieve familiarity with the text outcomes of focus group sessions. Then they organizing data into meaningful groups and code them into themes and subthemes. After they reviewed the themes and checking coherency of the data set. Finally, the themes and their underlying subthemes were defined and labeled. (Olivari, et al., 2017)

Results

Results of research are designed according to six research questions which were set. At the beginning of focus group research students of both faculties express their opinion on the personality of successful entrepreneur. This topic was also connected with the term of entrepreneurial spirit.

Table 2 Focus Groups outcomes – research question 1

Research topic	Personality of successful entrepreneur	
	Students of economics faculty	Students of non economics faculty
Answers	<p>Successful entrepreneur, he (or she):</p> <ul style="list-style-type: none"> ○ has talent (spirit) for entrepreneurship, ○ <u>has ability to do business sustainably and achieve satisfactory (not always the best) results.</u> ○ is experienced, ○ is motivated, ○ has attitude to risk, ○ is an individual, ○ speaks several languages ○ has available resources. 	<p>Successful entrepreneur, he (or she):</p> <ul style="list-style-type: none"> ○ is market oriented, ○ has a network of potential partners (friends) and can use this relationships, ○ is independent and assertive, ○ is motivated and positive minded, ○ <u>has just a general knowledge and know people with special knowledge.</u>
Interesting single opinions	„Education (including economic education) is not a prerequisite for successful business.“	„Money is not a prerequisite for successful business, successful entrepreneur can get/find necessary sources and create new.“

Source: own processing

Students of the economics faculty agree that a successful entrepreneur must have a particular entrepreneurial spirit (table 2). It includes the ability to manage business in a sustainable way and achieve long-term satisfactory results. They realize that short or one-time achievement of excellent results is not a sign of successful business. The entrepreneur himself should, according to them, be experienced and motivated. He should be able to face the risk, speak foreign languages (mainly English) and should have the necessary financial resources. *"The education (including education at economics faculty) is not automatically a prerequisite for success in business."* On the other hand, the students of non economics faculty emphasize the successful entrepreneur's market orientation and the ability to build a network of partnerships and ability to effectively use them. Students from both faculties agree that a successful entrepreneur should be an independent, assertive personality motivated in his work (table 3).

Interestingly, students of non economics faculty believe that a successful entrepreneur needs just general knowledge, which is more important than knowing all aspects of business (accounting, tax, languages, technical knowledge) separately. Entrepreneur should not know this skills personally, but he should know the people who manage them (accountant, translator, engineer) and be able to pay for their services. Nonetheless, they believe that: *"Ownership of finance is not a prerequisite for successful business. Successful entrepreneur can find, acquire and use financial resources to generate money."* Both students groups also agree that financial resources are important for business, but the lack of own financial resources does not seem to be a major barrier to business because: *"a successful entrepreneur can secure and appropriately use finance to generate new."* Both student groups believe that foreign resources (especially loans) are routinely available for start-up entrepreneurs and that their share may form a larger part of the entrepreneur's capital without any negative impact on their future success.

Table 3 Focus Groups outcomes – research question 2

Research topic	Knowledge, skills, experience of successful entrepreneur	
Group of students	Students of economics faculty	Students of non economics faculty
Answers	<p>An entrepreneur has to be able to:</p> <ul style="list-style-type: none"> ○ <u>manage all kind of activities (production as well as accounting or HR), he/she has to be universal „information clutch“.</u> ○ analyze the market and business environment, ○ find and use competitive advantage, ○ know his/her competitors and fight with them, and other bureaucratic background, ○ to communicate and use soft skills. 	<p>An entrepreneur has to be able to:</p> <ul style="list-style-type: none"> ○ understand the field of business (has technical knowledge), ○ learn the basic business information (accounting, taxes, law, social charges), ○ <u>learn constantly.</u> ○ deal with all kind of people, be assertive, ○ understand the business environment (situation in the country where he makes his activities).
Interesting single opinions	„Entrepreneur must be able to sacrifice all his time and energy to business.”	„The one and only thing that he needs is to find right people (workers, accountant, lawyer, etc.), manage and pay them.”

Source: own processing

Mentioned ability of using business partnerships students of economics faculty understood as one of the soft skills which can be taught in education process. They also agree, that this is one of the crucial factors of business success. Students of economics faculty understand that entrepreneur should be an information link among all the professionals whose services are needed in business. They also see entrepreneur as a market analyst, the bearer of a comparative advantage and a fighter with competition and bureaucracy. To fulfill all of these roles, entrepreneur according them need good communication skills and other “soft skills”. Besides that “*Entrepreneur must be able to sacrifice all his time and energy to business.*” Contrary, students of non economics faculty emphasize "hard skills" and technical knowledge from on the person of a successful entrepreneur. According them, the knowledge (at least the basics) of business (taxes, law, accounting) is also important for successful entrepreneur as well as knowledge of his/hers business environment (the economic and political environment of the country). Last but not least, they emphasize the general ability to "learn constantly".

As far as the willingness of the students to be prepared for entrepreneurship is concerned, the views of future graduates both faculties are more or less the same. They do not feel ready to become entrepreneurs after their graduation. Students of economics faculty feels that the university prepares them mainly for the role of the employee who executes the orders (according to their words "sheep"), not the entrepreneur (according to their words "the wolf"), who decides and acts independently in his own name and on his own responsibility (table 5). According to them, university education is focused too theoretically, and in addition it provides selected information from many areas but without any practical link to logical contexts.

Research questions 3, 4, 5 focus on starting own business after graduation and because of clutter of their content we mixed answers for this questions into common table 4.

Table 4 Focus Groups outcomes – research questions 3, 4 and 5

Research topic	Readiness to be an entrepreneur	
Group of students	Students of economics faculty	Students of non economics faculty
Answers	<p>How education prepared us for a business:</p> <ul style="list-style-type: none"> ○ university prepared us to be an employees- we can comply orders, but we can not act independently, ○ university provides a lot of theoretical information to us, but we can not use them practically, ○ we have an information from many useful subjects, but we can not connect them across the board, ○ we do not have enough information about starting own business and we do not have a motivation. 	<p>How education prepared us for a business:</p> <ul style="list-style-type: none"> ○ we did not have subjects about entrepreneurship, ○ we did not have related subjects (law, accounting) they just had fundamentals of management ○ we have no practical experiences (the only practical experiences we had, were on farm as helpers), ○ if we have a motivation or support, it is not from university but from family or friends, ○ we do not have a capital or the information how to provide it.

Source: own processing

Students of economic faculty are generally uncertain and dare to start own business (without experienced mentor). But, students of the study program Accounting and Auditing feel well prepared for starting own business from both technical and professional site. Many of them (60%) are planning to have own business in the future (in the field of their study). All technical students have major concern of creating their own business. They feel not qualified and they have zero economic knowledge base. Some of them (cca 10%) are planning to have own business after finishing university but with help from their family or friends.

After expressing their opinions on the personality of successful entrepreneur and their readiness for starting own business students were asked to suggest some ideas or recommendations how to improve preparation if young people-university students – for entrepreneurship (table 5).

Table 5 Focus Groups outcomes – research question 6

Research topic	Recommendation for entrepreneurship education	
Group of students	Students of economics faculty	Students of non economics faculty
Answers	Recommendations (what universities can do better): <ul style="list-style-type: none"> ○ younger, more flexible and more experienced teachers, ○ less theory, more practices, ○ more special lectures with experienced entrepreneurs and more „best practices“, ○ more freedom, innovative structure of subjects, individual consultations ○ special methods as shadowing programmes 	Recommendations (what universities can do better): <ul style="list-style-type: none"> ○ younger and less directive teachers, ○ more freedom, more space for questions and own opinions, ○ more practical lessons (examples, case studies, best practices) and more experienced guests on lectures, ○ more interest from teachers (teacher is just a mediator of informations, he has no interest if they understand).
Interesting single opinions	„Universities prepare us to be a good employee (sheep) but not to be an independent entrepreneur (shark).“	„If there is a future succesful entrepreneur between us, he does not need any more motivation but the practical information.“

Source: own processing

The ideas and recommendations of the students required to improve pedagogical practice in the field of entrepreneurship education were fundamentally different at the examined faculties. Students from both faculties would welcome younger, more flexible and less-educated teachers. More practical lessons with the space for free expressions of their opinions and asking questions. Equally, all would welcome more lecturers from corporate practice, innovative teaching methods (case studies, examples of good practice, shadowing programs) that are especially lacking at technical faculty and more freedom in creating students individual schedule. Students of the Faculty of Economics would welcome an individual approach by teachers, more consultations and less traditional exercises. Students of technical faculty also feels inadequate interest and enthusiasm of teachers: *“teacher is only a mediator of information for us, we do not see a counselor, friend or mentor in him”*.

Conclusion

Paper presents partial outcomes of V4 research project “Innovative entrepreneurship education - necessary precondition for future prosperity of V4 region“. This part of research includes five groups of students of economics study programs and five groups of non economics study programs of SUA Nitra. The focus group method was used for examination of opinions of students – future graduates on the topic of (their) entrepreneurship education. Except their entrepreneurship education the connected problems of personality of successful entrepreneur and skills and abilities required for successful entrepreneur was involved.

Students of economics and non economics study programs have (in some points) different opinion on the personality of successful entrepreneur. We believe that the target of their study program influence their opinion more than they admit and therefore students of economics study programs attribute more weight to "soft skills" and to a certain "entrepreneurial spirit" than students of non economics study programs. Vice versa, future graduates of the technical faculty consider the "hard skills", the capital equipment and the background in the form of partnership networks to be more important in successful business. However, with the exception of the students of the study program Accounting and Auditing, students of both faculties do not feel to be sufficiently prepared to start own

business after their graduation. Students of the Faculty of Economics and Management simply "can imagine themselves as employees", students of the Technical Faculty feel "absolutely unprepared for doing own business and absolutely loss in this issue". Both groups would welcome a more focused education led by "younger and more flexible teachers" who not only mediate information but also learn to use them in practice. Because, as they said, "If there is a successful entrepreneur among us, he does not need motivation to do business (he or she already have it) he or she needs practical information as: how to start, where to go, what to equip ect."

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CROWDSOURCING IN PUBLIC SECTOR ACTIVITIES

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Abstract: Crowdsourcing in the classic approach which means the following: using inspiration, ideas and knowledge from scattered sources (external and internal), referred to as: crowd wisdom.

The aim of crowdsourcing in public services is to improve the quality of public services and increase the number of participants involved in public processes. Crowdsourcing research in the public sector reveals that crowdsourcing platforms may reinforce the position of citizens and increase the effectiveness of public services. This triggers the need for public institutions to create IT platforms in order to generate and exchange ideas in the field of public services and to encourage employees and applicants to participate in the process of their co-creation. The purpose of the work is to examine how public institutions use IT platforms to create and improve public services and how their use contributes to improving the functioning of the public services sector.

Keywords: customer capital, crowdsourcing, online communities, motivations

Introduction

Dynamic development of the media of virtual communities and social media, prompts many institutions to use the external sources of knowledge (Pacha 2010, p. 539) (Gassmann 2012, p. 6). This knowledge is now recognized as the drive of innovation of every organization (Laursen and Salter 2006, p. 131-150) (West and Bogers 2014, p.816-824) (Weigand and Krause 2011). As a consequence, we are increasingly dealing with the launch of an innovative process, in which the role of an employee and partner of the entity commissioning the performance of a specific task, there is one who is also a consumer of the created value in the final analysis. This inclusion of the customer in the process of creating value provides the opportunity to create a unique product, hence on the one hand, unique, and on the other hand, appreciated and desired by the user. The substance of this product creates knowledge, the value of which determines the satisfaction of its user (Caputa and Krawczyk-Sokołowska and Paździor 2017, p.25-69). It should be emphasized, however, that in the context of open innovation, the key factor determining the effectiveness and efficiency of the innovation process is "the ability to reach for joint creativity" (Bessant and Moslein 2011), (Szwajca, 2010,p. 83-88)

This competence is based on crowdsourcing, which, in essence, is one of the methods of acquiring knowledge of external partners that are increasingly used by the enterprises and public sector entities. Crowdsourcing, basing on three pillars in a classical approach: crowd wisdom, virtual community and task outsourcing, allows the organization, with relatively low capital expenditures, not only to use the ideas, inspirations and knowledge of a wide range of future value users, but also to include the community in the process of its design, creation and communication. The effect of this is, among others better adjustment of the customer value to his/her real needs and priorities, furthermore, emotional bonding of a member of the community with the given institution, or with the area which he or she supervises, what favors the creation of a civil society. From the perspective of the needs of the management process of the indicated institutions, it should be stressed that information originating from such a source should be treated as a special type of resource, having a dual nature in relation to other resources in the sense that it reflects their condition from the perspective of the decision-making process (Ostoj 2008 , p. 61).

The key objective of the article is to indicate the place, role and importance of crowdsourcing in creating and improving public services and the ways and effects of its use in the practice of the selected public sector institutions.

Based on literature studies and experience of the selected entities from public sector, it has been indicated that the use of crowdsourcing not only improves the quality of services provided, but also triggers the activity of the local community, which translates positively into the commitment to value creation and promotes the effective allocation of resources assessed through the prism of customer satisfaction.

Crowdsourcing as a method of obtaining and using the potential of the community

The value creation process now accompanies every activity regardless of whether it is related to business or it is a non-profit activity. This process, being a sequence of interrelated activities that lead to the transformation of all expenditures on the product of the process, has its customer (Hammer and Champy 1997, p.17), (Lange, 2016). In the TQM concept, which is also used in the functional approach, the customer is "any person who pays and/or uses the product after its delivery (Sandholm 1997, p.59). As a result, this category should include not only the entity that buys the product on the market, but also:

- people who receive or use someone else's work, enriching it with their own contribution as a part of a given process or activity (the so-called internal customer),
- entities representing the given company on the market, being the participants in the distribution channel (the so-called agent),
- entities currently using the product offered by the company, society, or a group purchasing products of a given enterprise (Szczepańska 2010).

The customer is therefore an active participant in the process, not just a passive recipient of its result (Bitkowska 2013, p.72) (Skrzypek and Hofman 2010, p.37). In effect, his attitude, knowledge and competences may determine the course as well as the effectiveness of the process of creating value.

As it results from the above, every member of the public who uses the services of public sector institutions also appears in the role of the customer. A special place in this sector is occupied by the local self-government units that, by carrying out commissioned tasks and their own tasks, offer multidimensional value to their communities. This value is assessed from the perspective of its usefulness, and thus, the ability to complete the tasks defined by community members, i.e. essentially customers. The effects of this assessment, translating into customer satisfaction or a lack of it, affect the assessment of the usefulness of these entities. If this assessment is negative, the community will question the way and even the legitimacy of its functioning, and in certain situations it may stop financing them, among others, by transferring the place of tax payment. However, along with the increase in the satisfaction of residents (customers), not only the attractiveness of the area increases, but also the value of the entity itself, which is perceived as a "real" host, able to effectively use the entrusted resources.

Achieving such an effect is connected with the necessity of systematically creating value for the customer. This is not a simple thing, even more that the community is not homogeneous, and the value itself is subjective and dynamic (Vogel 2006, p. 15-16.), (Piercy 2003), (Caputa 2015, p.74-96). As a consequence, the process of its designing, manufacturing, delivery and communication on the market is based on the continuous acquisition of data and their transformation into information, which used in the action, develop knowledge resources and create wisdom of the organization. The source of this information are more and more often the inhabitants of a given area, whose progressive process of digitization not only facilitated the use of public services, but also enabled: real-time transmission and acquisition of information and participation in virtual communities.

These communities can be defined, for example, as: "social aggregations that appear on the Internet, when a sufficiently large number of people conduct public discussions long enough and with enough human feelings to create a personal relationship between them" (Rheingold 2000, p.45) or as "a self-defining electronic communication network, organized around shared interests or goals" (Castells 2007, p.362). Regardless of how the communities are defined, these are social networks that use computers to: establish and create relationships, within the group build a network of relationships which are bound by specific features of the community that creates them, in connection with satisfying a specific need. Although the members of the community often remain anonymous, they play an important role in social, cultural or mental reality. They can acquire and transmit information in real time, the content of which, based on their expectations, experience and knowledge, can support the process of designing, creating, distributing and communicating values (Kleeman and Voß and Rieder 2008). The participants of virtual communities can, for example: define the functional features of the product, choose or test the products offered, indicate how processes are organized, perform tasks or allocate limited resources, provide information about activities, initiatives or about the involvement of a local self-government unit to meet the needs of local communities.

The above-mentioned effects can also be achieved through direct contacts with residents or using traditional media for obtaining and transmitting information. However, the undeniable advantage of virtual communities is the ability to acquire and provide information: from and for a large, territorially

dispersed group of people, in real time, with relatively low capital expenditures and using multifaceted knowledge resources and creativity of its members. Thus, the progressing process of digitization, the result of which is also the dynamic development of virtual communities, enabled not only the use of the customer knowledge potential, but also made it possible to use the concept of "crowd wisdom". At the basis of this concept lies the belief that a large and diverse community can: create an innovative concept, better assess the reality, or find a creative solution, with its strength lying in the independence and creativity of its individuals (Surowiecki 2004). This concept is one of the pillars of crowdsourcing, which in the original sense was combined with partial outsourcing of innovative activities to be performed by the "crowd", closer to the undefined group of people (Howe 2006). As a crowd, there may be members of the virtual community receiving and transmitting such information that they can support the customer in solving his/her problems. Consequently, crowdsourcing is often perceived as an interactive, community-based innovation strategy (Gassmann 2012, p.18-26). By adopting a broad customer definition, it can be assumed that in this strategy a community member acts as a "working customer" who can: participate in problem solving, creating products from scratch, submitting ideas and voting, and in crowd financing (Voß and Rieder 2005).

Contemporary definitions of crowdsourcing do not combine the discussed concept with an activity that results in delegating specific functions or tasks to be performed by an undetermined community, but with a process initiated by the contractor (crowdsourcer) and addressed to the crowd, which is aimed at solving the defined problem (Leimaister and Zogaj 2013). This problem does not have to relate to an innovative activity, but the order itself refers to the financial and non-financial potential of community members. The commissioning entity can be anyone. As a result, crowdsourcing is now considered as a universal phenomenon (Doan and Ramakrishnan and Halevy 2011, p. 86-96), (Kazai 2011, p. 165-176). This approach is supported by the diversity of crowdsourcing initiatives that O. Gassman organizes under five different categories: public initiatives (Eureka Medical, Galaxy Zoo), intermediary initiatives (Hyplos, crown SPRING, Top Coder, Amazon Mechanical Park), free joint solutions (Linux, Firefox, VideoLAN, Open StreetMap, Yahoo Answers, Wikipedia), own initiatives of enterprises (IBM InnovationJam, Vocalpoint, BMW Via), marketplaces of own ideas (e.g. Dream Heels, Spreadshirt, cafepress) (Gassmann 2012, p. 6).

The foundation of crowdsourcing on engaging the community through technological solutions (internet platforms) and on the performance of a specific task while securing the transparency of operation, is connected with the economics of the crowd, in the context of which many areas are currently identified (Fig.1). Each of the areas in Figure 1 refers to the potential of the community and uses it through information technology.

CITIZEN ENGAGEMENT - residents engagement	CROWDINTELLIGENCE - collective intelligence of the community created based on cooperation	OPEN INNOVATION - using external knowledge sources in order to create innovative solutions	MASS COLLABORATION - independent collaboration of a large group of users on a mutual project
SOCIAL BUSINESS - enterprises aimed at listening, sharing and engagement through the open social media channels	CROWDSOURCING		ONLINE COMMUNITIES - internet communities of a high interaction coefficient, linked by a common idea, thought, etc.
NON-EQUITY BASED CROWDFUNDING - projects financing by community members in exchange for a reward, e.g. in a form of using project effects			CROWD TASKS & CREATIVITY - projects aimed at task completion, providing services or satisfaction, usually by a dispersed community
EQUITY - BASED CROWDFUNDING - community members become the stakeholders of the project, supporting it financially			CROWD CAUSES - units/organizations working for a righteous purpose, usually connected with charity
CROWDCURRENCIES Alternative currency systems created by internet communities	SHARING ECONOMY Mutual utilization of a resource	CUSTOMER CO-CREATION - co-creation with customers	PEER-TO-LENDING / COMMERCE - community money lending without the participation of financial institutions

Figure 1. Crowdsourcing - areas of use

Source: own work based on: http://www.pi.gov.pl/PARP/chapter_86197.asp?soid=38D1559667BB40778F1ED6B

One of them is the civil outsourcing, that is, such an order, the aim of which is to involve the residents in order to jointly develop the land, or to manage the city, municipality or even the state. Such solutions are also increasingly used by local government units, which, by including the members of the community in the implementation of specific tasks, not only reduce the costs and risk of implementation, but also create relationships based on partnership and cooperation, which may have a positive effect on the participation and involvement of community members in the process of identifying and solving the problems of the region, as well as the evaluation of the crowdsourcer itself, who is the local government unit.

Participatory budgeting as an example of using crowd potential – case study

One of the most frequently used forms of including the members of the community in the implementation of tasks executed by local self-government units is participation in the process of creating and implementing a participatory budget. This way of budget preparation enables citizens to participate in discussions and make joint decisions, as well as taking over the responsibility for the local government unit (city, commune). The participatory budget can allow identifying and meeting the needs of all residents. In accordance with this assumption, the participatory budgeting enables the eligible residents to submit public projects covering the area of their residence. Local self-government units in Poland do not have a universal procedure covering the stages of creating and implementing a participatory budget. Most of the activities can be distinguished through several phases of participatory budgeting, such as budget development, determination of resource volumes, presentation of investment alternatives, verification of legal procedures, and selection and implementation of the project (Łukomska-Szarek, Włóka 2014, p.137). In the implementation of most of these phases one can also include the local community, which, among others, may: indicate investment proposals, define its key parameters, including location or choose from various alternatives. Local authorities are increasingly using such "crowd" opportunities, as exemplified by the city of Częstochowa.

Since 2015, the participatory budget has been one of the instruments for the implementation of the city's tasks. This budget is a form of public consultation on the allocation of part of the city budget expenditure to the projects indicated by the residents, which are within the competence of the Commune. According to the resolution on the civil budget, the amount allocated for this purpose constitutes 1.1% of own revenue of the city budget of Częstochowa. Furthermore, an additional provision was introduced that the funds allocated to the civil budget cannot be lower than those allocated for this purpose in the previous year, which had a significant impact on the budget in 2017, analogous to the 2016 budget. The participatory budget is based on social consultations and the democratic selection of tasks to be carried out through the possibility of voting for eligible citizens. The tasks selected for implementation have obtained the highest number of points, until the funds are exhausted. Voting takes place at the designated points for voting or via e-mail or the Internet. The average voter participation in the voting on the participatory budget in Częstochowa was around 15%. The analysis of selected parameters of the participatory budget in Częstochowa in 2015-2018 is presented in Table 1.

Table 1. Selected parameters of the participatory budget in Częstochowa in 2015-2018

	Years			
	2015	2016	2017	2018
Number of people participating in the voting including valid votes	14919	36 621	22000	30625
voting traditionally	14867		20 866	21450
voting through electronic application	8856	28022	12597	18417
	6021	8599	8269	12208
Number of tasks under voting	259	459	374	526
Number of tasks to be implemented, including:	72	120	114	112
- general city tasks	8	8	5	8
- district tasks	64	112	109	104
Total funds for tasks implementation including – general city tasks	5 738 869	6 661 679	6 661 679	8 735 830
- district tasks	1 434 717	1 665 420	1 665 420	2 183 958
	4 304 152	4 996 259	4 996 259	6 551 872

Source: <http://konsultacje.czestochowa.pl> (accessed:01.03.2018)

As can be seen from the table in the analyzed period, we are observing an increase in the value of tasks given for voting. In comparison to 2015, the involvement of the community is also growing, which is manifested by the almost 2.5 times increase in the number of inhabitants participating in the vote in 2016 and in 2018. Although in 2017 this share is slightly lower, it does not change the fact that compared to the first period of using participatory budgeting, it is still higher by more than 50%. It is also worth paying attention to the fact that compared to 2015, in the following years the number of people voting via the electronic application is definitely increasing. As a result, the ongoing process of digitization, as well as the increasing digital competences of citizens in the coming years, are a good predictor of the use of community potential in the tasks implementation of local self-government units.

Such a statement is justified by the results of research conducted in 2014 within the framework of 97 editions of participatory budgets in 72 local self-government units in Poland in 2012-2014 (Kębłowski 2014, p. 10-35). They confirm the growing interest of residents in this form of resource allocation. About 800 citizens participated in the analyzed editions of participatory budgets and more than eight thousand suggestions and projects were submitted. The research shows that in the following years the interest in participatory budgets increases, which translates not only to the number of voters and the number of projects implemented by the indicated method, but also on social pressure to increase the participation of citizens in the implementation of the project too (Szaranicz-Kusz 2016).

The growing interest in participatory budgeting does not mean, however, that local government units make a full use of crowdsourcing opportunities. It is still common practice to end cooperation with the citizen when choosing a specific project. As a result, a person voting for a specific solution is not sure whether the project will meet his or her expectations. Taking into account the growing social involvement, the increase of the population actively using the Internet, dynamically developing virtual communities, as well as the growing demands of citizens, one can risk saying that this form of using the potential of the local community will gain in importance. Such trends are observed today in all major cities in Poland. The effect of this should also be the extension of areas of participatory budgeting.

Conclusion

As research has shown, despite the wide range of crowdsourcing opportunities in the activities of local government units, it is not fully utilized. The units most often use the "crowd potential" while implementing the participatory budget. This budget, being a form of democratic discussion, during which each citizen has the right to an individual decision on spending public funds, is also a method of obtaining information on the preferences of residents, which should translate into the efficiency of resource allocation. The growing share of the community in the votes on the selection of the projects point to the growing importance of this type of activities. However, this does not change the fact that limiting the participation of residents only to submitting the proposals and choosing the alternatives does not guarantee the customer satisfaction. This satisfaction is built through the development of cooperation, partnership and customer engagement, which should lead local governments to expand the areas of its use.

This direction of actions is also supported by the opinions of the local government representatives themselves, who all agree that the inclusion of the local community in the process of implementation of tasks and initiatives undertaken by the local government units has a positive impact on both, the satisfaction from public services and the assessment of the credibility of local government authorities, as well as leads to growth of citizens' involvement.

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NEW MODEL OF ORGANIZATION OF LOGISTICS PROCESSES IN WAREHOUSE AND EFFECT OF LOGISTICS COSTS REDUCTION

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Abstract: The topic of logistics costs and their solution through innovative management methods has recently become very much a source of debate. The article is based on information that is drawn from the Scopus and Web of Science databases and from the internal data of the logistics service provider and a production company. The article focuses on the issue of processing calculations, taking into account all the costs associated with the logistics activity of the production company. It also deals with the possible application of management synergy effect between a logistics service provider and a production company. The aim of the article is to include in the case study, which is a qualitative scientific method, the proposal to integrate a logistics service provider not only into the logistic manipulation and warehousing, but to involve this provider in pre-production operations of heating and air-conditioning bonding, including sequential delivery to the production line, thereby creating synergies throughout the logistics chain. The resulting innovative solution in the case study should be higher productivity and lower costs for the final product.

Keywords: calculation of logistics costs, logistics service provider, synergy effect, warehousing costs

Introduction

Logistics services provided must be a source of value not only for the final customer but for all stakeholders involved. A prerequisite for evaluating the effectiveness of all activities is cost monitoring across the entire supply system, including logistics service providers.

Warehousing as an integral part of the logistics system, is a dynamic and interactive activity that focuses on the level needed to meet demand. When delivering logistics services, it is important to make efficient use of both time and warehouse or local space. Warehousing costs to a large extent affect the total cost because they are mainly reflected in the overhead cost category, which shares a growing trend in total costs.

An essential step in the process of logistics cost tracking and evaluation is to define business processes whose costs are counted into logistics costs and their assignment to cost objects for decision-making tasks.

Once the relevant processes have been determined, appropriate quantities must be selected to express the logistic outputs, respectively. Logistic performances corresponding to these costs, since from the point of view of management, an indicator of cost-performance.

The solved issue is also a major problem for logistics service providers.

A significant part of the logistics tasks are implemented by logistics service providers, these companies play a key role in the more efficient operation of selected industries.

The main aim of this article is to include in the case study the proposal to integrate a logistic service provider not only into the logistic manipulation and warehousing but to involve this provider in a pre-production operations of heating and air-conditioning bonding and also sequential delivery to the production line thereby creating synergies throughout the logistics chain.

The resulting innovative solution in the case study should be higher productivity and lower costs for the final product.

Review of Literature and Methodology of the Research

Proper and reasonable calculation of the logistics costs of the manufacturing company will be one of the important ways to face stronger competition in the market (Zhu, Liu 2007).

Cojocariu (2012) emphasizes that logistics is an important factor in promoting globalization and developing international trade flows. Bokor (2011, 2012a, 2012b) points out that logistics costs have become one of the main factors determining the competitiveness of the economy.

Logistics and warehousing costs play an important role in everyday work and become one of the main factors of market differentiation as highlighted by Gunasekaran and Kobu (2007), Melnyk i in. (2009) and Bowersox, Closs and Cooper (2013). Kučera (2017) argues that logistics managers are usually interested in providing high quality services to their customers at minimum cost.

Bokor (2008 and 2009) notes that requirements for the quality of logistics services are getting higher and higher. At the same time, however, the financial resources available to companies are rather limited. In such a business environment, according to Bokor (2013), logistics companies have to pay special attention to the optimal allocation of resources in various decision-making tasks.

Bokor (2009) emphasizes that the costing of logistics costs has become a real challenge in logistics and supply-chain management. Bokor and Markovits-Somogy (2015) state that it is necessary to obtain reliable and accurate information about the structure of the calculations to achieve efficient allocation of resources within the logistics service provider.

All three problems logistics costs, warehousing and logistics processes have the same importance in this article.

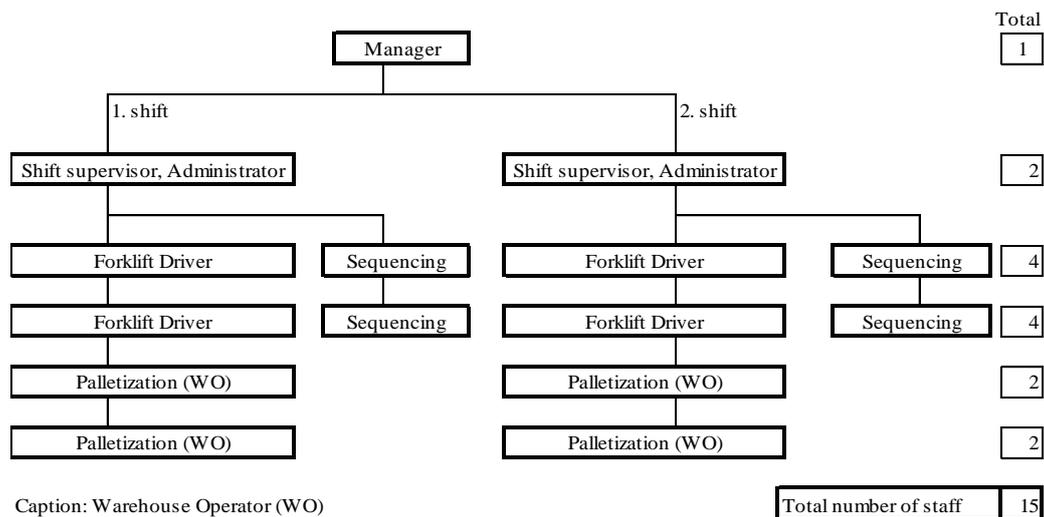
The application of calculation of logistics costs in warehouse will be presented on the real case study which is the method of the qualitative research based on the study of one or a small amount of situations for application of the findings for the similar cases according to Nielsen, Mitchell and Nørreklit (2015). Lloyd-Jones (2003), Verschuren (2003) and Hancock and Algozzine (2006) feature the case study among qualitative research methods.

Král i in. (2010) argue that the method of the case study is most often used in the calculation of logistics costs. This method identifies the most important information that is necessary for proper managerial decision-making tasks.

Results and Discussion

The case study is focused not only into logistic manipulation and warehousing but to involve logistics service provider in a pre-production operations of heating and air-conditioning bonding, including sequential delivery to the production line.

Based on the stakeholder collaboration model used so far, a logistics service provider provides logistic manipulation services to ensure trouble-free warehousing. The calculated warehouse servicing staff required and the entire organization chart are shown in Figure 1. The total number of staff was calculated for 15 people in two-shift operation.



Caption: Warehouse Operator (WO)

Figure 1. Organizational Chart - Logistic Manipulation and Warehousing Staff

Source: Own work

On the basis of data collection of in-depth interviews with managers, the number of service staff was determined of the heating and air-conditioning bonding. A clear organizational chart of the individual work positions is shown in Figure 2. The total number of staff required for the heating and air-conditioning bonding was calculated for 20 people in two-shift operation.

operations of the heating and air-conditioning bonding may lead to a reduction of total costs. All calculated costs will be reduced and, in particular, the cost of the final product will be reduced. The cost of initial logistics service provider engagement will be 1,882,998 CZK while the new synergic engagement of the logistics service provider into pre-production operations will reduce the cost to 1,629,357 CZK. The total personnel costs and the costs of the forklift structure will be reduced.

The resulting innovative solution in the case study is a higher productivity and lower costs for the final product. Costs for the final product will be reduced from 289.69 CZK/piece to 250.67 CZK/piece.

Table 1. Two Possible Models of Cooperation - Calculation of Logistics Costs

Production of the Company: 78 000 pcs/year			
Costs according to the standard model of cooperation			
Logistic Manipulation and Warehousing			
		Profit %	Total / month
1. Forklift	Total forklift day/month	5 31	0% 78,802 CZK
2. Staff	Number of staff	15	10% 514,112 CZK
3. Other costs			
Management fee		0%	10,000 CZK
Telecommunications		0%	1,500 CZK
Warehousing costs		0%	302,045 CZK
Energy (without profit)		0%	52,500 CZK
Operating costs		0%	35,000 CZK
Labels		0%	12,500 CZK
Start - up costs		0%	5,000 CZK
Total costs + profit			1,011,459 CZK
Pre-production Operations (Production Company)			
		Profit %	Total / month
1. Forklift	Total forklift day/month	3 31	0% 44,454 CZK
2. Staff	Number of staff	20	10% 766,585 CZK
3. Other costs			
Management fee		0%	0 CZK
Telecommunications		0%	1,500 CZK
Protective devices		0%	18,000 CZK
Operating costs		0%	35,000 CZK
Postage		0%	1,000 CZK
Start - up costs		0%	5,000 CZK
Total costs + profit			871,539 CZK
Total costs based on the standard model (per month)			1,882,998 CZK
Total Costs per Product			289.69 CZK/pc
Costs for participation LSP in the pre-operations			
Logistic Manipulation and Warehousing			
		Profit %	Total / month
1. Forklift	Total forklift day/month	5 31	0% 94,832 CZK
2. Staff	Number of staff	13	10% 418,934 CZK
3. Other costs			
Management fee		0%	10,000 CZK
Telecommunications		0%	1,500 CZK
Warehousing costs		0%	302,045 CZK
Energy (without profit)		0%	52,500 CZK
Operating costs		0%	35,000 CZK
Labels		0%	12,500 CZK
Start - up costs		0%	5,000 CZK
Total costs + profit			932,311 CZK
Pre-production Operations (Logistics Service Provider)			
		Profit %	Total / month
1. Forklift	Total forklift day/month	2 31	0% 20,212 CZK
2. Staff	Number of staff	16	10% 606,334 CZK
3. Other costs			
Management fee		0%	10,000 CZK
Telecommunications		0%	1,500 CZK
Protective devices		0%	18,000 CZK
Operating costs		0%	35,000 CZK
Postage		0%	1,000 CZK
Start - up costs		0%	5,000 CZK
Total costs + profit			697,046 CZK
Total costs based on the new model (per month)			1,629,357 CZK
Total Costs per Product			250.67 CZK/pc

Source: Own work

The overall contribution of the article is shown in Table 2. This is mainly about reducing the cost of one made product. The monthly difference is 253,640 CZK (expressed in Euro 9,947), the cost difference for one made product is 39.02 CZK (1.53 Euros) and the reduction of the service staff by 6 people. Total annual costs will decrease by synergy in the logistics chain by 3,043,683 CZK (equivalent to 119,360 Euros). The resulting synergy effect is savings in total costs per product of 13%.

Table 2. Summary of all Benefits of Cooperation (in CZK and Euros)

Difference (per month)	253,640 CZK	9,947 Euros
Difference (per product)	39.02 CZK/pc	1.53 Euros/pc
Reduction of the staff	6 persons	6 persons
% total costs savings per product	13%	13%
Annual costs savings	3,043,683 CZK	119,360 Euros

Source: Own work

Conclusion

The chain of logistics activities ensures the smooth running of the production process and logistics costs are associated with each logistic activity. These costs are not negligible items that affect to a large extent the overall profit or loss of an enterprise. The need to monitor costs in terms of logistics activities is a prerequisite for identifying rationalization measures in logistics activities and optimizing the logistics costs of an enterprise.

The aim of this article was to design and evaluate the possible closer cooperation of the logistics service provider not only in logistic manipulation and warehousing services but also in pre-production operations, thus creating synergic effects throughout the logistics chain. The resulting effect is higher productivity and, in particular, lower costs for the final product, which will decrease from 289.69 CZK/piece to 250.67/CZK piece.

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SOCIAL NETWORKS AND BUILDING CULTURAL CAPITAL IN RURAL TOURIST AREAS – CONCEPTUALIZATION OF THE RESEARCH METHODOLOGY

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Abstract: The essence of the development of tourist areas is their intersubjectively shared attractiveness due to various values that are not available in the tourist's place of residence, including cultural attractions. If only some people need to use the offers of cultural institutions, the recognition of a given region as a tourist one may result in a greater supply of cultural offers. As a result, there may be a positive feedback - the richer the cultural capital is, the more the attractiveness of the region will grow. However, the frequent appearance of tourists is connected with stronger cultural diffusion. The tourist offer becomes a result which depends on the local specificity and patterns of consumption imposed by the dominant culture, not requiring high cultural competences. As tourists often enter into deeper relationships with the subjects operating in the tourist areas, they engage members of local communities to expand their own networks of relationships. The authors of the paper are interested in the issue of the capacity of the network of relations in the context of effective shaping of the social and cultural capital of the region. Due to the shortage of this type of research, a methodological concept was presented based on an analysis of the available literature, including similar research and previously conducted self-pilot studies.

Keywords: cultural capital, rural areas, social networks, tourist region

Introduction

One of the fundamental features of modern society, referred to as information, is the development of digital technologies and their impact on social life. In the virtual space communities a return to active co-creation of cultural content is observed, which was previously characteristic of the pre-industrial society. In the context of such culture-forming co-operation, L. Lessig uses the term "remix culture" (2014). Both virtual and traditional communities create their cultural capital in a different way in relation to urban society. Urban societies are treated as centers of cultural industry, in which recipients of cultural content are treated only as consumers. As K. Krzysztofek writes, "Once the culture has started to be sold, it is a cumulative process; institutions become economic entities, regardless of their ownership status, they become part of the leisure time industry focused not only on satisfying the needs of local art lovers, but on tourists - consumers, on visitors instead of residents "(2005, p. 44). In the industrial society which is also perceived as a modern society cultural content began to be subject to clear economization.

The authors of this text ask about the way of treating own culture in the rural communities located in tourist regions. Is it more influenced by the copying of patterns of activities focused on the development of cultural industries, or if to a greater extent rural communities may be subject to the impact of online communities built around activities which autotelically treat the content of culture they produce? Spaces with identity lose their autotelic character through instrumental treatment for promotional activities, which is typical for the creation of marketing strategies for the cities (Czarnecka, Albrychiewicz-Słocińska 2017). The purpose of the undertaken considerations is to analyze ways of creating cultural capital in rural tourist areas through cooperation of various institutional and non-institutional actors. At the institutional level, it is cooperation of self-government institutions and creation of inter-municipal associations such as Local Action Groups. On the other hand, at the non-institutional level, these may be activities related to the opening of the community to external cultural influences while at the same time creative enrichment of one's own culture through the use of borrowed components. In both cases, it may contribute to the increase of competitiveness of these areas in relation to metropolitan centers, strengthening such competitiveness factors as: local leaders' activities, support from external institutions or even the government's action (Xu, Zhang, Tian 2017; Petrović et al. 2018; Birendra et al. 2018). Links between an increasing number of diverse social actors are an expression of the networking of the social structure. It is even indicated that the logic of networking becomes dominant, which favors the displaying of people and their behavior, and less attention is paid to the functionality of organizational structures (Słocińska 2012, pp. 478-479).

The development of cultural capital can be equated with the increase of the diversity of cultural content and the increase of cultural competences of recipients of this content. Therefore, the question about the degree of rural communities members openness to external influences seems to be important. I. Bukraba-Rylska indicates that in previous concepts of the cultural model, the village was characterized by features such as primitivism contrasted with progress, archaism and conservatism treated as closing itself to external influences (2013, p. 479). However, in the case of the Polish village, mutual cultural influences between the village community and nobles were emphasized, which means that the tendency to creatively use cultural patterns from the "foreign" environment was the rule rather than the exception (Bukraba-Rylska 2013, pp. 481-482). Regardless of the views on the autonomous creation of cultural capital in the rural areas, rural culture, also known as folk culture, is a resultant of the activity of local actors and external actors influencing the countryside. While in the industrial era it was the impact of new, formalized institutions (including schools, cooperative and political organizations), in the post-industrial society, such incidental actors - tourists - are becoming more and more popular.

The specificity of a given region attracts specific categories of tourists, and their presence influences shaping of the space visited in accordance with their needs. It can be said that there is a positive feedback between the tourist's axionormative system and the actions of the actors of the local scene in favour of shaping the public space. Adapting to the narrow profile of tourism by agreeing to the domination of one element (or complex) of culture may paradoxically lead to depletion of local cultural capital. It is also pointed out that the development of tourism in the rural areas may lead to imbalance in the functioning of rural communities (Su et al. 2018).

Methods

Methodological approaches in tourism research in rural areas

In research on tourism in the rural areas, researchers focus on such issues like: marketing of tourist services (Sowier-Kasprzyk et al. 2010, Sowier-Kasprzyk 2011), competitiveness of regions, impact of tourism on sustainable development (Xu, Zhang, Tian 2017; Petrović et al 2018, Birendra et al 2018). In addition, the following research problems are also indicated: shaping the regional culture through tourism, folklore phenomena, support for creating a new identity, relations between the inhabitants of rural areas and tourists, increasing the impact of tourism in the regions (Košťalová 2016, p. 1034).

Such a wide range of issues raised in the case of rural tourism research also requires a multilateral methodological approach. Due to the specificity of the studied populations, i.e. relatively small groups of rural and relatively territorially dispersed tourist micro-enterprises, the conducted research is often a case study. Mainly, qualitative research methods are used, such as: structured and semi-structured free interviews (Paniccia, Leoni, Baiocco 2017, p.8), observation, document analysis (Dalonso, Dalonso 2017, p. 644), including website content and personal documents. A holistic approach in such case studies also requires the use of longitudinal study, often associated with long stays in a given area (Xu, Zhang, Tian 2017, p. 8, Birendra et al 2018, p. 7).

In the context of tourism in rural areas, however, there are few studies that take into account the flow of cultural capital in social networks. Some studies focus on the description of the use of social media (Facebook, Google+, LinkedIn, Twitter, Instagram) and virtual networks to share cultural capital by tourists, which influences their decisions regarding the choice of place of travel, stay, services offered and how to meet the needs (Hays, Page, Buhalis 2013; Oliveira, Correia, Fernandes 2017). In other cases, researchers focus on the analysis of social networking dynamics, however, at the expense of its narrowing to a certain category of actors, i.e. entrepreneurs serving tourism. This limitation is necessary due to the possibility of conducting interviews with social actors or the possibility of obtaining data from them in a different way (Birendra et al 2018). The description of the network dynamics requires obtaining data about all the actors creating it, which becomes possible when selecting a subnet (a significant part of the network, which itself is also a network). In such cases, the research is limited to the analysis of social capital, but without the analysis of the flow of cultural capital.

Creating open social networks in rural tourist areas

Creating cultural capital can be seen as the effect of transformation of various forms of capital, including social capital (Kukowska, Skolik 2013). In socio-economic terms, the creation of social capital depends on the shape of social networks generated by individuals, which thus balance their access to resources. If cultural capital is considered from a resource point of view, then the visited facilities and the space in which they are located are elements of the cultural capital. This space can be treated as a public, secondary (semi-private) or private territory regardless of its ownership status (Bell et al. 2004, pp. 346-349). Balancing access to goods within the network created by the community promotes competitiveness with other communities. Competitiveness, however, requires innovation, and this is possible by allowing the "strangers" to own social networks. When networks tend to monopolize resources, this promotes hierarchization, while balancing processes work for the social structures described as markets (Kukowska, Skolik 2016). It seems that in tourist villages, the initially communal nature of social relations is transformed into network structures. The cooperation of a large number of actors is important here, because the greater their diversity, the richer is the cultural capital. It can be assumed that the direction of transformation of one form of capital into another is influenced by the type of social organization. Market and network structures due to the openness to cultural influences may be conducive to the transformation of social capital into cultural capital. On the other hand, communities and hierarchies, due to closing themselves to such influences - vice versa - may be conducive to the transformation of cultural capital into social capital. However, these two opposing transformation processes should not be treated dichotomously. Network structures are also conducive to building social capital, but this is not happening as spontaneously as in communities.

In the tourist village, which is a mix of the market and community, the social network of social organization (Kukowska, Skolik 2017a) is increasingly dominating. Openness to foreign tourists is not only conducive to enriching one's own culture with new elements, but also to increasing the diversity of categories of social actors that build this network. One can ask a question about the limits of the capacity of such a network. Does increasing the number of links created with tourists, locally operating units and institutions weaken bonds with each other? If the number of actors in the network exceeds 150, the actors can be exchanged and so the existing bonds with members of the local community, family and other "significant others" may be broken. This numeric index is referred to as the Dunbar number. Examining primates, R. Dunbar noted that for *Homo sapiens*, the original groups were just 150 individuals, and groups of this size were the natural social environment of man (Dunbar 2017, p. 98). It is worth noting that in today's society, not only people who have contact with face to face but also virtual identities join the network of friends. Even characters from popular culture are treated as real members of the group, with whom individuals have contact through television. "People who often watch TV simply believe that they have more friends than they really have" (Szlendak, Kozłowski 2008, p. 98).

Departure from mass culture coincides with the new phenomenon of prosumption, observed in cyberspace and among various fan communities (Bomba, Stunża 2014). Characteristic for prosumption is the active creation of cultural content by individuals who are also consumers of this content. Participation in the co-creation of cultural content can also be observed in rural tourist areas, where tourists give new values to the space they visit. As a consequence, it becomes a seed to grow cultural capital produced by various categories of actors: tourists, residents, public and private cultural institutions, tourist-serving companies (mainly family), as well as self-government authorities, religious institutions, social organizations and internet travel websites.

Results and Discussion

Actors producing cultural capital in social relations networks can be categorized according to three dichotomous criteria: 1) acting institutionally and non-institutionally; 2) insiders and outsiders; 3) actors that create real, direct relationships and the ones that create virtual, mediated relationships. The authors assume that such categorization could be more beneficial for the analysis of information flows in social networks than the categorization of actors due to their functions on the tourism market (ie tourists, residents, entrepreneurs, public institutions, social organizations, etc.).

In the pilot studies conducted by the authors in 2017 among tourist representatives of family micro-enterprises (Kukowska, Skolik 2017b), it was noticed that they do not create relationships with locally operating cultural institutions. It seems that cultural capital is separately generated and passed on by institutional and non-institutional actors. In rural tourist areas, it is the tourists who, as outsiders, become key nodes in the networks of locally generated cultural capital. Their activity in the consumption of cultural goods offered by local institutions, participation in cultural events, exploration of space and familiarization with local history releases the flow of cultural capital between cultural institutions and residents.

While social networking sites can be used to share cultural content (e.g. by posting photos, place descriptions and opinions), thus enhancing the cultural capital of the tourist region, Internet users also establish cooperation with cultural institutions in order to disseminate common cultural heritage in cyberspace. An example is the cooperation of the main national institutions with Internet users regarding cataloging photographs of monuments in a dozen or so countries (Skolik 2013). The authors' research indicated that some of the locally operating institutions are also willing to share cumulated cultural goods in cyberspace (Kukowska, Skolik 2017c). The shaping of the social environment, which is cyberspace, has led to inflation of social networks, as Internet users have emerged as new important actors in these tourist areas.

Taking into account the issue of transformation of social capital into cultural capital, the question of strengthening the network of relations with tourists, who are still one of the main entities generating flows of cultural capital, becomes important. Consequently, one should answer the question about the reasons for tourists returning to specific places. It can be assumed that the causes of this phenomenon include: the need to separate from their social environment and create new identities, the need to experience the "authenticity" of social relations, participation in periodically organized cultural events and treating the place of temporary stay as a good quality "base camp". Another question that arises is, who do they first of all create strong ties with - insiders or other outsiders?

Finally, the issue of the capacity and therefore the flexibility of the network is controversial. In order to test Dunbar's hypothesis regarding the size of the social network created by the individual, in the context of shaping such networks in tourist villages, it would be worth answering the following questions:

- Do joining new actors to the social network of the entity exclude existing friends?
- Does activity in the sphere of tourist choices translate into a lower inclination to passively absorb the content of culture? Are active people in this sphere to a greater extent cultural prosumers?
- What is the question of maintaining the relationship between tourists and hosts in the non-tourist period?
- Do tourists, with the increase of their own activity, limit the time of using traditional media?

Digital technologies, which are increasingly used to collect information about friends, become brain extensives, which allows us to consider the assumption that people can switch between different social networks, not limited to the resources of their own memory. By travelling, individuals as tourists can activate participation in completely different social networks than those in which they participate on a daily basis.

Conclusion

Undertaking research on the relations between social networks and shaping cultural capital poses a number of methodological problems. Focusing on the analysis of network dynamics in the long run becomes all the more difficult as wider network of relationships one analyzes. Thus, it raises problems regarding the analysis of the capacity and flexibility of social networks. Units form networks not only through face-to-face contact, so it is also important to set the direction of network expansion, and thus to identify new, significant actors (who and how is becoming a hub of social networks related to tourism in rural areas?). Only taking into account the above remarks, it is possible to try to determine how cultural diffusion on rural tourism areas favours the strengthening of local cultural capital and how information flows in social networks among various categories of actors participating in the tourism market in these areas.

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CORPORATE SOCIAL RESPONSIBILITY IN POLAND ACCORDING TO ENTREPRENEURS FROM THE SME SECTOR – PILLARS: RELATIONS WITH EMPLOYEES AND MARKET

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Abstract: The aim of this article is to present the perception of corporate social responsibility (CSR) in Poland. The study discusses the results of the examinations whose goal was to assess the knowledge of entrepreneurs in the SME sector about the CSR concept in the following areas: relations with employees and the market. Using a synthetic manner in the survey, it should be concluded that within the pillar of "relations with employees", the most important problem was to care for the employees' welfare and safety at the workplace and care for the image, reputation, development of the enterprise and its employees, which was indicated by 90.2% and 74.2% of the respondents, respectively. From another standpoint (market), the respondents enumerated the most important factors as good relations and honesty towards customers, employees and partners (85.6%) and care for quality of products and services and meeting customers' needs (84.1%).

Keywords: corporate social responsibility, employees, market, stakeholders

Introduction

More and more managers are implementing CSR solutions into practice in their enterprises and organizations in order to achieve improved effects while building long-term competitive advantage and social value for the customer. Small and medium-sized enterprises are in a more difficult situation as they often are unaware of how to efficiently plan and perform socially responsible activities and where to obtain funds. Furthermore, they do not have sufficient knowledge about CSR as they consider CSR as purely marketing activities or believe that they should be implemented only in big companies. In small and medium-sized enterprises, managers are not familiar with methods and tools that allow for socially responsible functioning. However, corporate social responsibility is a concept which is attracting more and more attention to social and green products in business activity and in relations with stakeholders on a voluntary basis. Building strong relations involves keeping obligations and promises, honest behaviour, taking expectation of other people into consideration, and dialogue and cooperation. Enterprises that build their strategies should be willing to voluntarily take into consideration the benefits to society, environment and stakeholders and care for good relations with them (Kulej-Dudek 2018). Therefore, the aim of this publication is to indicate the role of corporate social responsibility in Poland through practical activities of enterprises in terms of relations with employees and activities oriented at achievement of the goals connected with local communities and market. The study discusses the results of the examinations whose goal was to assess the knowledge of entrepreneurs in the SME sector about the CSR concept in the following areas: relations with employees and market.

Corporate business responsibility towards market challenges

A broad discussion on the importance of corporate social responsibility is observed in many countries and many environments, involving representatives of business, non-government organizations, public administration and various scientific and political environments. The activities started by enterprises in the area of corporate social responsibility represent the response to dynamic and complex market challenges and the pressure on playing a more and more active role in the life of local communities.

During the past decade, interest in corporate social responsibility has grown from the domain of a small group of academics to the mass of investors, firms and the general public (Nguyen, Kecskes, Mansi 2017). Social responsibility of companies was defined as responsibility to consumers, workers, stakeholders and the community. The aim of social responsibility is to create higher standards of living, while preserving the profitability of the corporation (Patil 2014).

CSR is not merely an addition to the activities of enterprises on the market. The concept of CSR is more and more frequently becoming an element of strategy in enterprises (Bylok 2016). Corporate social responsibility is an especially complex strategic endeavor. Successful CSR strategies must satisfy varying employee needs, encourage employee identification and be co-created with employees (Bhattacharya, Sen, Korschun 2008).

In the changing economic reality, enterprises are forced to take continuous adaptive activities that consist in fast and adequate response to the requirements of the environment and changes in the market. The enterprise value largely depends on stakeholders. Therefore, modern management should be based on building and development of good relations. These activities may concern the involvement in ethical behaviours and contribute to the sustainable development while maintaining respect for people, local communities and environment. In practice, properly understood corporate social responsibility means that managers should be sensitive to the problems concerning other employees and business partners, be responsible for social effects resulting from business decisions and positively influence society.

CSR pillars: relations with employees and market

Corporate social responsibility is one of the concepts of management which take into consideration enterprise responsibility for the effect on the employees, customers, shareholders, local communities, natural environment and building relations with internal and external stakeholders (Pypłacz, Mizera 2016). Therefore, the enterprises and their managers should manage their relations with stakeholders using socially responsible programs (Bakanauskiene, Staniuliene, Zirgūtis 2016).

Therefore, it can be concluded that social responsibility should be approached as activities aimed to generate positive effects among internal and external stakeholders, including employees, customers and society and to reduce the negative impact on the environment. Therefore, the research part of the study was focused on the following pillars for which example characteristics were identified:

- relations with employees: creating more job vacancies, ethical employment and labour relations, working conditions, occupational safety and health, social care, employee dialogue, relations with employees, development of employees, training,
- market: responsible and ethical business activity, honest competition, respecting property rights, respecting law, transparency of activities, collaboration with stakeholders.

Relations with employees affect the greatest involvement and feeling of safety among employees. They should be based on mutual respect and recognition of human dignity (Kulej-Dudek 2016).

Many business organisations have recognised implicitly that the principles of Corporate Social Responsibility (CSR) are intrinsic to successful management practices. The application of CSR in large corporations cannot be generalized to SMEs due to the specific characteristics associated with SMEs particularly with regard to the size of the firm (Adapa, Rindfleish 2013).

In business activities, the examples of practices in CSR started by entrepreneurs of the SMEs sector concern mostly the following areas: environment, society and workplace. The solutions that help improve relations with stakeholders in the area of "market" are less frequent. In general practice, market-oriented initiatives concern the entities and external and internal stakeholders, whereas in SMEs, core CSR activities connected with the market are mostly oriented towards improving corporate image (Stawicka 2015).

CSR research in the SME sector in Poland

Methods. The survey concerning opinions of entrepreneurs about the concept of social responsibility, its major pillars, principles and examples of activities was conducted in the beginning of 2017. The choice of the sample for examinations was purposive. These examinations were performed by means of a survey questionnaire and conversations with the representatives of enterprises. In total, they had 132 micro, small and medium-sized enterprises operating in the Częstochowa city region of the Silesian Voivodeships in Poland (study population). The questionnaire contained 21 questions connected with corporate social responsibility and behaviours of managers with respect to enterprise stakeholders (Kulej-Dudek 2018). Important factor was managers' opinions about the importance of CSR principles used within the specific pillars:

- relations with employees,
- market.

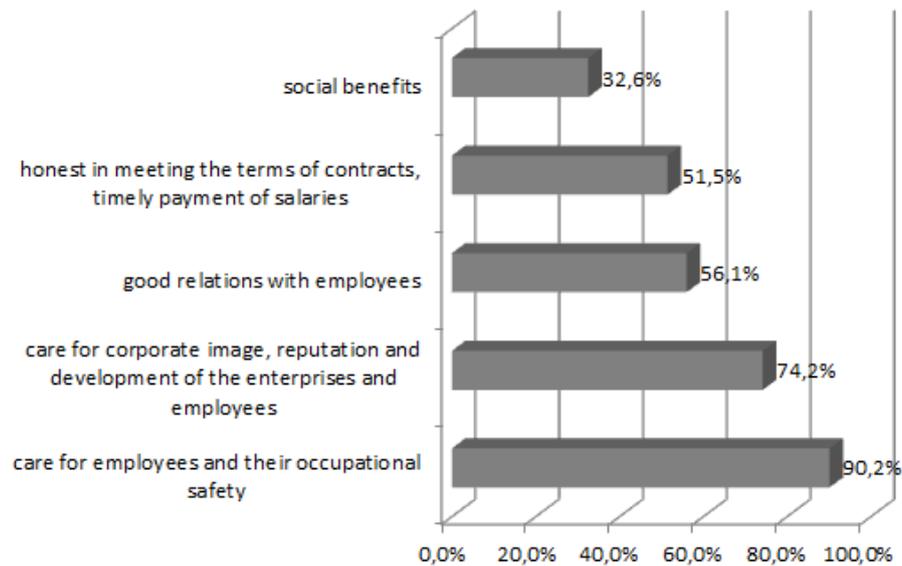


Figure 1. The most important aspects of corporate social responsibility according to entrepreneurs from the SME sector (Pillar 1. Relations with employees)

Source: author's own elaboration

The managers and owners in enterprises realize that employees represent the biggest asset and that knowledge, skills and motivations of the employees determine the development of the enterprise. Therefore, the activities in the presented first pillar are considered a priority.

Results. One of the most important activities within the first pillar that were indicated by the respondents was to care for the employees' good and their safety at work (90.2%) (Figure 1). This high assessment of the activities is likely to be connected with a legal obligation to ensure safe working conditions and protect life and health of employees. Another aspects were care for image, reputation and development of the enterprise and its employees, which was indicated by 74.2% of the respondents, and good relations with employees (56.1%).

Discussion and Conclusions. These results seem to be obvious since the interest of enterprises in building a positive image both inside and outside the organization has been increasing for many years. A positive corporate image plays a leading role in contemporary business practice. It is one of the critical factors that potential customers take into account when choosing goods or services in one of many companies present in the competitive market. Proper relations between employees and managers have a positive effect on functioning of the entire enterprise while contributing to the establishment an image of a good employer. Slightly over half of the respondents indicated fairness in respecting the terms of concluded contracts and agreements, and timely payments of salaries. Honest and fair treatment of all the entities in the market (customers, contractors, partners, suppliers, competitors) and the employees should become a priority for each enterprise. The same concerns respecting current legal regulations, standards and norms. Only a small group of enterprises (32.6%) pointed to social benefits such as providing material or financial support, funding holidays for the employees or their children, special hardship benefits, purchase of tickets for concerts, cinema or theatre.

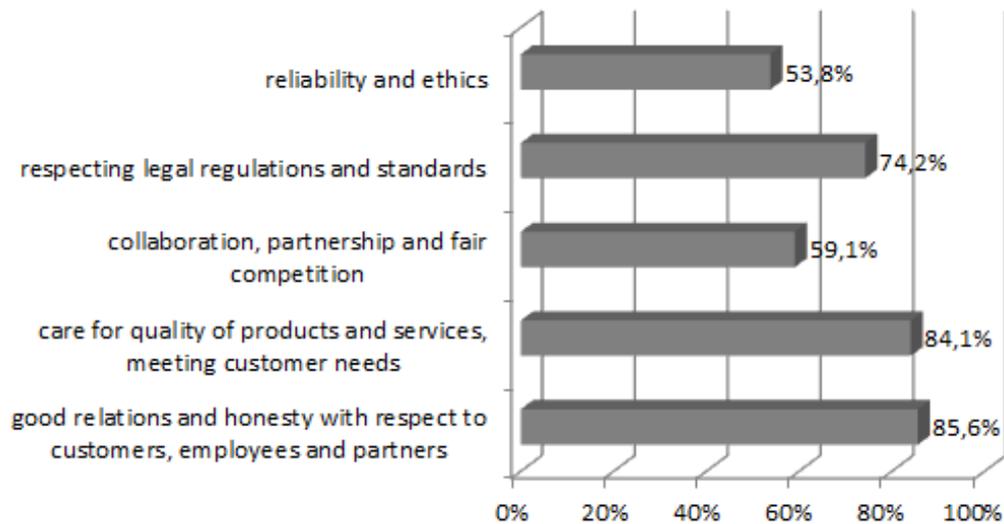


Figure 2. The most important aspects of corporate social responsibility according to entrepreneurs from the SME sector (Pillar 2. Market)

Source: author's own elaboration

Results. The owners in the enterprises studied enumerated several types of social activities with respect to the pillar - market (Figure 2). The most frequent indications were good relations and honesty towards customers, employees and business partners (85.6%) and care for quality of products and services, meeting consumer needs (84.1%).

Discussion and Conclusions. Entrepreneurs are aware of the fact that the determinant of the success in the market is not only profits but also fairness i.e. activities consistent with the principles of ethics. Using such principles in everyday business practice is likely to increase loyalty of customers, employees and business partners and improve perception of the enterprise in society. Such enterprises care for the relations between supervisors and employees and proper relations with the enterprise environment, show respect for all the employees and stakeholders and cares for maintaining trust. Furthermore, the quality of products and services results from several activities and should be first and foremost related to customer expectations. To consumers, quality of products or services means the likelihood of meeting the needs. To producers, the quality represents the ability of a specific enterprise to manufacture products or services at the lowest cost in order to survive in specific markets (Kall, Sojkin 2006). Therefore, knowledge of customer needs and design and planning aimed at meeting these needs represents one of the fundamental tasks of enterprises concerning manufacturing. An important task was to respect legal regulations and standards (74.2%), for example in terms of using occupational safety and health regulations. Another relatively important aspect is cooperation, partnership and fair competition, which was emphasized by nearly 60% of the respondents. Slightly fewer than half of the enterprises indicated reliability and ethics as important factors. Enterprises which respect such principles in business should use moral principles which create values resulting from tradition or culture. From this standpoint, the activities should consist in providing reliable information about the enterprise and its products, involvement in activities using fair competition practices, regular repayment of obligations and respecting the provisions of the contracts and agreements. Success can be achieved through building a modern organizational culture around the shared system of values such as partnership, honesty, transparency, loyalty and reliability with respect to employees, customers and other stakeholders.

Conclusion

Social awareness of corporate social responsibility is greater among managers in corporations and big enterprises. Few small and medium-sized enterprises in Poland are effectively implementing initiatives in this field. Socially responsible activities are taken by the enterprises which need to achieve image benefits, be distinguished in the market or be more competitive. In conclusion,

entrepreneurs are aware of certain activities that can be performed in the area of CSR. However, many of these activities remain to be underestimated and unnoticed. There is also a problem with implementation of these activities into business practice. This is especially noticeable in the sector of small and medium-sized enterprises. Socially responsible activities should be carried out in a conscious, well-planned manner which is adjusted to individual needs of local community and stakeholders.

The study has some limitations. First and foremost, the survey was limited to small and medium-sized enterprises, mainly service providers. Furthermore, the survey was conducted in a small area of Poland limited to the Częstochowa region. The survey questionnaire was aimed at owners and managers rather than all the employees due to the complexity of the presented concept. The responses contained in the questionnaire represent subjective opinions of the respondents.

Based on the interviews with entrepreneurs and the data obtained in the study it can be concluded that enterprises from the SME sector had some knowledge concerning community involvement, but without detailed discussion of this concept, most of these activities would not be recognized. Therefore, it seems justified to raise awareness and knowledge in this area as corporate social responsibility in the SME sector is especially important due to the impact of this sector on the economy.

Detailed discussions have been conducted with regard to Corporate Social Responsibility concept and making the entrepreneurs aware of implementing sample actions in this scope allows for an optimistic outlook for the future and hope that these actions will be successfully implemented in business practice of small and medium sized enterprises in upcoming years.

Interesting direction of future research will be perform a survey in other regions of Poland, even in the entire country, and to compare the results in order to implement practical initiatives in each pillar in individual enterprises.

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MIGRATION PROCESSES AND THEIR IMPACT ON THE LABOR MARKET OF POLAND

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Abstract: Migration processes have an impact on the formation of competent human resources and consequently, on the competitiveness of any country. During the period from 1995 to 2016, the number of the resident population of Poland according to official statistics, decreased by 1.7%, amounting to 37,967,200 people. During the analyzed period, about 242,400 migrants arrived in Poland, including 55.2% men and 44.8% women. At the same time, about 530,200 people left Poland, including 55.1% men, as well as 44.9% of women. Only in 2016 did the situation change when the number of migrants arriving exceeded the number of departed migrants by about 10%. The number of labour resources in Poland increased by 9.5% over the analyzed period. The number of labour resources employed in industry increased by 7.3%, while the number of labour resources employed in the service sector increased by 39.2%. At the same time, the number of labour resources employed in the agro-industrial complex decreased by almost 2 times. People prefer to find work where labour is more in demand and more productive. Mechanization, industrialization and growth of labour productivity in agriculture has led to the gradual release of labour. High competitiveness on the one hand, as well as the presence of risks on the other, influence the choice of new places of residence by people, the choice of the sphere of labour activity and the implementation of decisions on the development of personal potential and the formation of new professional competences.

Keywords: economically active population, employment structure, labour market, migration, salary, unemployment

Introduction

Poland's accession to the European Union was considered one of the main advantages that allowed the Poles to freely move, learn and work. At the same time, Poland lost a significant part of mobile, skilled labor resources. The government and the scientific community of Poland clearly understand that migration issues have an impact not only on the formation of the labor market, but also on the quality of the labor force, the economic performance of enterprises, the changing structure of employment of economically active population and other important problems.

Among the well-known scientists dealing with migration processes in Poland are the names of Alsher S., Grot K., Kaczmarczyk P., Dabrowski P., Fihel A., Stefanska R., Jagielski J. and others.

The works of the famous Polish scholar Kaczmarczyk P. are devoted not only to the problems of Poland's development until 2030, but also to migration policy, the problems of brain drain from Poland, but also to issues of labor migration in the era of change (Kaczmarczyk, 2008; Fihel, Kaczmarczyk, 2004; Kaczmarczyk, 2005; Kaczmarczyk, Okólski, 2005), demographic and market consequences of migration in Poland, the issues of labor mobility within the European Union and many others (Kaczmarczyk, 2006; Fihel, Kaczmarczyk, Okólski, 2006; Fihel, Kaczmarczyk, 2004; Fihel, Anacka, Kaczmarczyk, Stefańsk, 2011; Kaczmarczyk, Okólski, 2008).

Some of authors in his work notes that the main areas of labor migration from Poland after 2004 were the countries of the European Union, the United Kingdom and Ireland. At the same time, Poland was characterized by "circular migration", in which migrants periodically return to the country of origin (Alscher S., 2008).

Other of authors in his work notes that migrants arriving in Poland tend to occupy those positions that have not been claimed by local Poles for a long time: agriculture, services and trade, and the construction sector (Grot K., 2013).

In the work of Heckmann F. (2016), "Understanding the Creation of the Public Consensus: Migration and Integration in Germany, 2005 to 2015", it is noted that "a number of factors stemming from Germany, economic, immigration, and policy context played a role in this development (a number of factors stemming from the economic, immigration and political context of Germany played a role in this development): sustainable economic strength, link between immigration and

economic growth in public narratives, a strong elite consensus on immigration and comprehensive investments in immigration and integration policy. In this work, the author also notes that «the differences between countries are quite clear and stable over time». More recently, the 2014 pew global attitudes survey also found that support for more immigration was larger in Germany (14 percent of respondents) than in the United Kingdom, France, Spain, Italy, Greece, or Poland. The share of those favoring less immigration was also lower than in any of the other seven countries surveyed with the exception of Poland» (Heckmann F., 2016).

The issues of legislative regulation of migration processes in Poland and the European Union and such important issues as access of foreigners to the labor market, their social security, analysis of the number of Polish migrants residing abroad, problems of repatriation and mixed marriages are devoted to works of group of authors (Dabrowski P., Fihel A., Kaczmarczyk P., Stefanska R., 2012).

The purpose of this article is to study the dynamics of migration processes, the changes in the structure of the labor market in Poland, the age of unemployment, the study of the difference in the unemployment rate of urban and rural areas and the ways of finding work, the areas of new employment, key issues that the economy of Poland should address in the near future.

Main bullets

Migration, demographic, labor processes largely depend on the socio-economic conditions of the level and quality of life of the population. According to official statistics, the number of migrants leaving Poland for a long period of time exceeded the number of migrants. The number of the resident population of Poland, according to official statistics, for the period from 1995 to 2016 decreased by 1.7%, amounting to 37967.2 thousand people. During this period, about 242.4 thousand migrants arrived in Poland, including 55.2% men and 44.8% women. At the same time, about 530.2 thousand people left Poland, including 265.8 thousand 55% men and 45% women. For the period from 1995 to 2016, the number of departures exceeded the number of arrivals: in 1995 - 3,2 times, in 2000 - 3,7 times, in 2005 - 2,4 times, in 2010. - 1,1 times, in 2011 - 1,3 times, in 2012 - 1,5 times, in 2013 - 2,6 times, in 2014 - 2,3 times , in 2015 - 1,6 times. And only in 2016 the situation changed and the number of migrants arrived exceeded the number of departed migrants by about 10%. The number of labor resources in Poland increased by 9.5% over the analyzed period.

It is important to note that the unemployment rate in Poland at different time stages of the country's development was not the same. In the period from 2000 to 2005, its maximum values reached 16-20% (Figure 1).

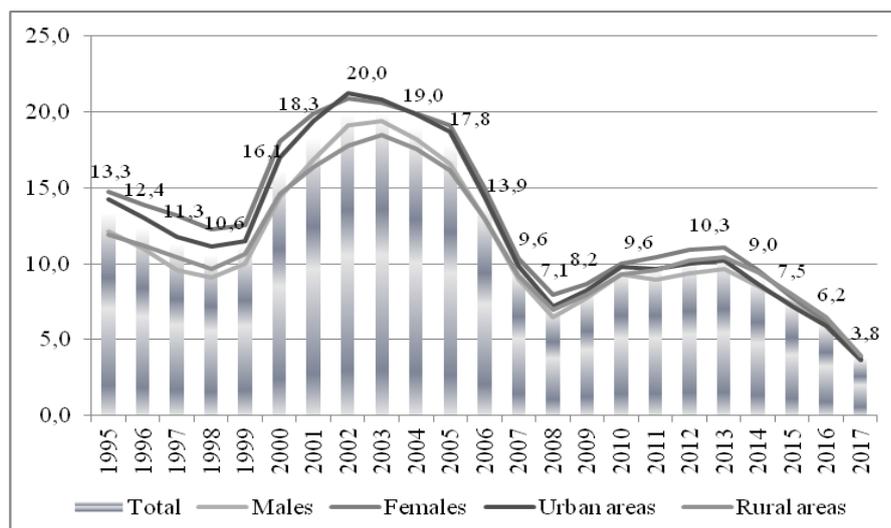


Figure 1. Unemployment in Poland of the population aged 15 and more by sex and place of residence in the years 1995-2017

Source: State Statistics of Poland. Official site. A source: <http://stat.gov.pl/en/> [accessed on 30.03.2018]

From the data presented in Figure 1 it follows that the unemployment rate in Poland for the period from 1995 to 2003 tended to grow steadily.

And after joining the European Union, Poland's economy began to strengthen. In the period from 2004 to 2017, the unemployment rate began to decline: from 19% in 2004 to 3.8% in 2017, which is a positive factor and indicates an improvement in the state of the economy. The decrease in the total unemployment rate in Poland for this period was 9.6 percentage points, and for men and women the unemployment rate in 2017 was the same (3.8%), but there was a difference in the urban unemployment rate (3.7%) and the rural population (4%) by 0.3 percentage points.

It is important to note that 60.7% of the unemployed are registered in urban areas of Poland, and the remaining 39.3% live in rural areas. Among the total number of unemployed people, 20% of people searched for work for less than one month, 21% for 2-3 months, 17% of unemployed sought work for 7-6 months, 19% for 7-12 months. 13% of the unemployed were looking for work for 13-24 months. 10% of the unemployed were looking for work for 25 months or more.

Only 39% of the unemployed in rural Poland sought work for up to three months, and in urban areas such unemployed in 2017 was 42%. Job search lasting from 7 to 24 months in urban areas carried out 30% of the unemployed, in rural areas - 35%. This shows that in rural areas it is much more difficult to find work, and unemployment is protracted. In addition, it is important to note that a significant proportion of the unemployed in rural areas simply do not report their problems to the employment service of the population, since this main reason is the psychological barrier and ensuring self-employment in their home area. Overall unemployment in Poland is long-lasting.

The level of education of the unemployed has a decisive influence on the employment of citizens. Total 32% of the unemployed have basic vocational education, 20% of the unemployed have secondary vocational education, 18% of the unemployed have tertiary education, 14% of the unemployed have education of junior staff, 13% of the unemployed have secondary education, post-secondary education have 3% of the unemployed.

In 2017, more than 80% of the unemployed in Poland previously worked in different sectors of the economy. All 22% of the unemployed worked in the manufacturing sector, 19% of the unemployed worked in the repair of vehicles, 14% of the unemployed worked in the public sector, 13% in construction, 5% in transportation and logistics, 5% in the education system, 3% in agriculture.

The duration of the job search is diverse. The most long-term job search is in the humanities and art - 13.3 months, in the social sciences, journalism - 11.4 months, engineering, production and construction - 11.2 months, in education and agriculture - 10, 2 months, 9.8 months in the field of health and social services, 9.5 months in the field of information technology, 9.1 months in business, administration and law, 8.1 months in the service sector.

Table 1. Unemployed persons by methods of job search and age

Years	Total	Methods of job search						
		poviat ¹⁹ labour office	private employment office	placing or answering job advertise- ments	direct contact with employers	friends, relatives	making efforts to become self- employed	participation in tests, qualification interviews
Total	818	472	68	283	410	562	19	101
15-19	34	15	.	11	19	23	.	.
20-24	163	78	11	57	79	115	.	21
25-29	114	67	14	41	51	69	.	21
30-34	100	60	8	48	61	70	.	15
35-44	183	109	12	58	92	131	7	24
45-54	134	84	14	40	60	91	6	11
55-74	89	59	6	28	48	62	-	7
working age	809	470	68	279	408	557	19	101
mobile	592	329	47	213	301	408	13	83
non-mobile	218	141	20	66	107	149	6	18

Source: State Statistics of Poland. Official site. A source: <http://stat.gov.pl/en/> [accessed on 30.03.2018]

¹⁹ The administrative structure of Poland is as follows: the country is divided into voivodeships (województwo), voivodeships - to powiat (powiat), povyats - to communes (gmina).

The Polish economy currently employs about 15.5 million people, out of which 20.7% are employed in industry, 14.7% in trade, repair of motor vehicles, and 13.7% in agriculture, in education - 7.7%, in construction - 7.6%, public administration and defense, compulsory social security - 6.1%, Transportation and logistics - 5.7%, human health and social work activities - 5.4% professional, scientific and technical activities - 2.5%, administrative and support service activities - 2.4%, financial and insurance activities - 2.2%, information and communication - 2%, accommodation and catering - 1.9%, arts, entertainment and recreation - 1.3%, water supply, sewerage waste management and remediation activities - 1.1%, electricity, gas, steam and air conditioning supply - 1%, in others - 4%. Poland's accession to the European Union had a positive impact on the local labor market. Political changes contributed to the liberalization of the rules of entry and stay of foreigners, especially from among the post-Soviet states. Poland became not only a "window" to Europe for many migrants, but also a place where they stayed to live for a permanent time. One of the main features of migration movements is that the influx of immigrants can contribute to changing the ethnic structure of the country. Each country needs measures to protect the local population from unemployment. Our analysis allows us to state that the modern labor market in Poland is characterized by a high level of unemployment among young people; structural imbalance of labor supply and demand; characterized by a low level of professional mobility; long-term unemployment and some other problems.

The structure of the employment of the population in the main branches of the economy and the influx of economically active population into the regions of Poland are due not only to the availability of jobs, but also to the level of wages.

From the official statistics of Poland it follows that in Mazowieckie Region (the largest in terms of the area and population of central and eastern Poland), there is an increase in the number of economically active population and an excess of the level of remuneration over the average in comparison with the general value for Poland in the sectors: industry (113.9%), in construction (131.1%), in accommodation and service industry (119.3%), in research (professional, scientific and technical activities (120.9%), in industrial production (115.5%). Similar situation associated with the growth of the economically active population and exceeded the level of pay compared to the average value of the economy in Poland is observed in the three provinces: Dolnośląskie, Śląskie, Pomorskie.

In six regions in Poland: Lubuskie, Wielkopolskie, Łódzkie, Opolskie, Kujawsko-pomorskie, Małopolskie, despite the growth in the number of economically active population in practically all sectors of the economy the level of pay is lower than the national average.

The outflow of economically active population for the period from 1995 to 2016 was noted in six regions in Poland: Świętokrzyskie - by 5.7 thousand people, in the province of Lubelskie - by 4 thousand people, in the province of Zachodniopomorskie - by 2,7 thousand people, region Warmińsko -mazurskie - by 2.6 thousand people, in the province Podkarpackie - by 2.1 thousand people, in the province Podlaskie - by 0.3 thousand people. The remuneration of these regions in all sectors of the economy is lower than the average for Poland.

Thus, economically, Poland has clearly distinguished four successful regions: Mazowieckie Dolnośląskie, Śląskie and Pomorskie. The most lacking behind are Świętokrzyskie, Lubelskie, Zachodniopomorskie, Warmińsko-mazurskie, Podkarpackie, Podlaskie.

The development program Poland 2030 outlined ten key issues that the economy should address in the near future: increasing the growth and competitiveness of the economy, improving the demographic situation, raising the level of professional activity, developing infrastructure, raising the level of environmental and energy security, raising the level of the knowledge economy, solidarity and regional unity, strengthening of the unity of society, raising the level of state efficiency and increasing social capital.

Conclusion

In the first, Poland's accession to the European Union allowed the Poles to freely move, learn and work. But as a result of migration outflow, Poland lost a significant part of mobile, skilled labor resources. The number of the permanent population of Poland, according to official statistics, for the period from 1995 to 2016 decreased by 1.7%. The number of labor resources in Poland increased by 9.5% over the analyzed period. The country is aging.

In the second, the level of education of the unemployed has a decisive influence on the employment of citizens. 32% of the unemployed have basic vocational education, 20% of the unemployed have secondary vocational education, 18% of the unemployed have tertiary education, 14% of the unemployed have education of junior staff, 13% of the unemployed have secondary education, post-secondary education have 3% of the unemployed.

In the third, in 2017, 80% of the unemployed in Poland before loss of work used to work in different sectors of the economy. Out of these, 22% of the unemployed worked in the manufacturing sector, 19% of the unemployed worked in the repair of vehicles, 14% of the unemployed worked in the public sector, 13% in construction, 5% in transportation and logistics, 5% in the education system, in agriculture 3%.

In the fourths, the search for work through friends, relatives is carried out by 69% of the unemployed, through the employment service (district offices) is carried out by 58% of the unemployed, through direct contact with employers - 50%, through advertisements - 35%, through private recruitment agencies - 8%. Total 2% of the unemployed tried to become self-employed.

In fifths, the problem of the employment of graduates is not unique to many European states, the same applies also to Polish youth. The number of graduates among unemployed in 2017 was 14% from rural schools and 9% from urban ones.

Thus, the issues of labor market regulation should be addressed in a comprehensive manner, taking into account the influence of various factors.

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DIGNITY-BASED MOTIVATION AS A DETERMINANT OF CONTEMPORARY MANAGEMENT

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Abstract: This paper discusses the new problems from the area of dignity-based management (DBM), where human resource management and motivation for work is based on the need for dignity of both employees and managers. In organizations where dignity-based leadership and motivation schemes are used, employees obtain dignity-based satisfaction from work, are engaged in work through self-motivation and identify with their employee roles. The aim of this paper is to analyse the principles of dignity-based motivation in organizations using a method of case study on one of the Polish production and service-providing enterprises. In conclusion, work requires a leader who uses the methods of dignity-based management.

Keywords: dignity, dignity-based management, dignity motivation, turquoise organization

Introduction

Most people respond with opposition to the lack of respect for other's dignity, manifested in behaviours that expose a person to depersonalization mechanisms, making them feel like a thing, a working force, means for achievement of the goals by others. Especially outrageous is exploiting other people. On the other hand, the sensitivity of Poles, with their strong sense of dignity (formed culturally), who have often emphasized respecting human dignity, has often adopted a form of demanding or even selfish attitudes.

As rightly observed by M. Kosewski, young people who start their jobs naturally perceive themselves as working people rather than things. They become a human resource only if their superiors treat them impersonally by only controlling and motivating using the carrot-and-stick approach. The same author claims that using adequate education, training and workshops can help managers learn new techniques of dignity-based management. The methods of dignity-based management which are based on the assumption of the employee's subjectivity have not been discussed in most conventional management handbooks but the demand on such publications is increasingly high in many enterprises, driven by the situation of employees and common sense (Kosewski 2012, p.86)

In the concept of dignity-based management, based on dignity-based regulation of behaviour, the source of dignity-based motivation of the person is internalization of several appreciated social values during primary socialization, which are the general models for behaviour characterized by dignity and morally positive. The values include honesty, justice, rectitude, solidarity, courage, truthfulness etc. The result of the internalization is the self-image as an honest, fair, reliable and solidary person. (Ambroziak, Kosewski, 2012, p. 86).

According to E. Stanisławska, the source of the dignity management is internal motivation of the employee. In this case, is defined as a desire to meet the internal needs of your system of values, cultural norms and behaviours (Stanisławska 2014, s.66).

When in the nineties of the 20th century development of modern concepts of management led to the evolution in many organizational areas, more and more focus of enterprise activities was on the process of value creation rather than division of tasks and specialization of work positions. This phenomenon became one of the reasons for starting the topic by the author.

The basic goal of the paper is to present and analyse the principles of dignity-based motivation in organizations, using a method of case study of one of Polish production and service-providing enterprises.

The turquoise model of organization has become especially representative. Its paradigm rests on the following pillars: responsibility, trust, self-organization of work and self-realization (see Skiba, Kwiatek 2017, pp. 55-62). Each pillar requires a highly developed awareness concerning agency, consequence of actions taken in mutual relations between employees and managers and, consequently, respect for other's dignity.

Modern concepts of management in theoretical

Development of modern concepts of management in the nineties of the 20th century brought a change in the views concerning control functions and the form of organizational structures. With the concept of lean management, enterprise activities are focused on the process of creating value rather than on division of tasks and specialization of workplaces. This structure allows for transfer and accumulation of knowledge. Furthermore, it is very demanding. The basic problems include: ability to establish teams and maintain their performance and creativity and evaluation of their functioning, which turns out to be very difficult in practice. H. Mintzberg drew attention to the phenomenon of "adhocracy", which meant disappearance of various previous structural relations. The tasks performed by the organization are dynamic and incessantly changing (task-project structure), (Czekaj, Teczek 2006, p.42). The enterprises operate flexibly and directly cooperate with various specialists during creation of necessary analyses, diagnoses, expert opinions, programs etc. Therefore, much emphasis is on quality of cooperation and reaction of relation networks.

It is more and more often postulated in management theories that the emphasis should be shifted from extended structures and strongly controlling organizations towards more flattened, with higher effect of employees.

As rightly observed by A. Blikle, „supervision itself is expensive, because someone has to supervise.” (Blikle 2016, p. 133).

Modern forms of participation assume that there is no clear hierarchy. However, according to A. Jeznach, this does not mean that „nobody has an authority, every does what they want to or that there are no leaders and those who initiate necessary processes. Authorities and decision-makers still exist. In practice, the lack of hierarchy means that the board does not give up authority and reject it, but it delegates the authority and powers to the newly created system. Responsibility and authority is taken over by employees” (Jeznach 2017, p. 72). Leaders who motivate for work emerge in teams naturally and coordinate the work of the group while experts share their knowledge and experience. „Things happen organically. Meetings and roles in self-managing structures emerge spontaneously. They last as long as they add value to the ecosystem” (Laloux 2016, p. 100).

It should be emphasized that, depending on the activities aimed to adjust to the requirements of the environmental working conditions (economic, social, political etc.), the change in the approach to human management occurs evolutionary, shifting from quantitative to qualitative.

Background

Dignity-based management: paradigms of dignity-based motivation

According to J. Mariański, the problem of human dignity belongs to important moral problems of modernity. From ontological standpoint, each human has similar dignity as others. In psychological and social approach, dignity is developed in the process of socialization and it contains the component of potentiality: everyone can be more or less aware of their dignity. Personal dignity is relativized by the values the person appreciates.

In the eighties of the 20th century, when a crisis of trust in interpersonal relations was observed while selflessness started to disappear, the process of reevaluation of attitudes and human behaviour started, shifting from open and social towards closed and selfish attitudes. Paradoxically, despite intensifying interpersonal contacts, as emphasized by the above mentioned author, the attitudes of trust are rare or reduced to the interest-based trust that is dominant in the market economy, functioning within the systems of providing mutual services (Mariański 1985, p. 5).

It should be also noted that appropriately understood sense of personal dignity, connected with positive self-assessment and sensitivity to others leads to manifestations of valuable community-based activities. People with strong sense of dignity are characterized by a moral sense which relatively well balances individual good with common good. Only the interpretation of dignity based on demanding attitudes leads to a pathological approach: "personal dignity or common interest" (pathology of dignity) (Mariański 1985, p. 23).

As argued by A. Blikle, a famous theorist and practitioner of management, one should strive for motivating employees using a dignity factor. It is also important that the person who performs the work is convinced that what they do is useful for others, does not violate their codes of value, represents the sense of being proud of the job performed.

Dignity rewards are the strongest motivators for taking actions and, consequently, performing the work. Furthermore, this author described the components of the workplace in order for the work to be performed based on dignity.

1. **Workshop:** tangible resources (buildings, machines, equipment, materials etc.) and intangible resources (handbooks, standards, procedures, rules etc.).
2. **Salary:** fair, non-financial benefits such as meals at workplace, integration activities, opportunities for personal development etc.
3. **Friendly social environment:** atmosphere of partnership, trust, freedom of decision-making and taking responsibility (Blikle 2016, p. 145).

In dignity-based management, the process of employee motivation is based on social values, which are the general patterns of behaviour characterized by dignity and morally positive: honesty, justice, rectitude, solidarity, courage, truthfulness.

Dignity-based management rests on these values, which supplement each other and create the relationships between the three basic components:

1. **Employee ethos:** meeting the needs for personal dignity by working (consistency of the employees' behaviour with personally appreciated dignity-related values) represents the precondition for the establishment of employees' self-control.
2. **Self-control:** individual and team control as a precondition for respecting specific procedures and standards for good work by employees.
3. **Quality:** quality of work and its products is possible if sufficient level of employees' self-control is ensured (Ambroziak, Kosewski 2012, p. 80).

The most important factor in dignity-based motivation is adequate change in employee's awareness. It can be achieved by correlation of changes in styles and techniques of managing people.

M. Kosewski, a scientist who has examined behaviour of people in conflict situations between personal benefits and other ethical challenges for 30 years, presented several practical principles connected with dignity-based motivation for the team managers. These include:

- Building the employee ethos;
- Individuality of symbolic and material rewards;
- Individuality of internal symbols and rituals;
- Care for authority of the higher-ups;
- Limitation of employee anomie;
- Breaking the process of social agreeing the explanations;
- Not leaving people without effective support in situations of employee temptation;
- Using manager's own experience, (Kosewski 2012, pp.5-7).

In general, it can be concluded that the leader uses *dignity-based management*, since team members are in this paradigm considered as entities which achieve common goals rather than being human resources (tools) for performing the enterprise's tasks. Motivation based on values is a very difficult and complex process, requiring a very high sensitivity to employees issues from the superior, supported by adequate level of knowledge. Although dignity-based management may seem a fancy, it is actually implemented in certain visionary Polish companies.

Results

The subject of research was the Gliwice company Marco .Marco is a company from Gliwice, Poland, operating since 2000 and employing 80 people. It is a manufacturer of labels, seals, pads and packages. Marco has a modern, innovative and automated stock of machinery. Marco is first and foremost a group of exceptional people, full of passion and commitment, who promote values and ideas of corporate social responsibility. They create a unique organizational climate and make the company successful. The organizational culture in the company represents a set of fourteen principles and values. Authorities in Marco claim that long-term goals of the organization can be achieved only based on stable pillars. These include in particular respect for people in a broad sense, continual improvement process, awareness improvement process and exceptional approach to charity and work towards local society. With stable employment combined with consistent support for employees and their families, the enterprise formed a specific and creative work environment.

Vision: become one of the most innovative and influential companies all over the world from the standpoint of global advances and development.

Values: broadly-understood respect for people. Solving social problems and respect for the natural environment.

Mission: to design and supply unique, high-quality products which positively impact on people and development of enterprises. (<http://labels.pl/o-firmie.html>, read on 29.02.2018). Marek Śliboda - president and owner of Marco from Gliwice, Poland, claims that if someone has money and good people they trust, the employees should be paid so that they do not care for financial problems. Consequently, they can focus on work. A just employed employee, regardless of the position, earns 2,600 zlotys during the probation period. Including bonuses, this makes around 3,000 zlotys. Later, this salary increases. Salaries in the production department, depending on the positions and the respective responsibility, range from 4,500 (independent machine operator) to 6,500 zlotys (people with higher responsibility). Therefore, the salaries are substantially higher than in other companies. This directly results from the organizational culture, which operates based on simple principles. If a person was verified, they are a valuable employee for the enterprise. If they were to earn 1,300-2,000 zlotys, it would be unfair, according to the president. (Madeja 2016, p.1). It is critical for the enterprise that the employee has to be exceptional. The most important traits are responsibility, honesty and loyalty and attachment to the enterprise and identification with its long-term mission. This means that Marco employees have to understand what the enterprise does and what it wants to achieve. Social engagement and helping others is also important. Much importance is attached to improving the qualifications and employee development. The level is increased higher and higher every year, which represents the test for the employees. The enterprise emphasizes social responsibility and trains employees in this area. The enterprise employs people who identify with it. Therefore, participation in charity campaigns does not represent the problem for the enterprise and is something quite natural. The enterprise uses the principle: "first who, next what" i.e. first it attracts right people and next creates superproducts of the future. However, the key priority for the enterprise is respect for people and identification with vision and mission. The president of Marco says: "We believe that in a billion people all over the world there are individuals who are both honest people and giants in their fields" (Madeja 2016, p.3)

Discussion

The Marco is a company oriented towards treating employees as subjects rather than objects. The important corporate values are responsibility, honesty and loyalty. Respect for the employee is also manifested in fair salaries for people with commitment and those who identify with mission and vision of the enterprise. The enterprise invests in employees and their development, encouraging them to improve qualifications. Importantly, both the entire enterprise and employees are socially active.

Conclusion

One should agree with the opinion of D. Ambroziak and M. Kosewski that people more often start jobs guided by personal benefits, maintaining families, repaying the debts etc. However, if a newly employed person is at the workplace, they turn, from the motivational standpoint, into a 'paid voluntary worker': the salary is deserved based on the contract, whereas the motivation of the person's own dignity is the most important driver for behaviours towards the boss and colleagues. As noted by these authors, such voluntary workers, even paid, cannot be managed based on the carrot-and-stick approach. They need a leader who uses the methods of dignity-based management. This requires that the leaders are substantially involved and professionally prepared (Ambroziak, Kosewski 2012, p. 88).

In conclusion, work is unrelated to the sense of person's own dignity to most people, which was termed by J. Piliavin - *moral experiencing the work*. „Experiencing the fear of losing the job is not, however, the same as what is moral and, consequently, dignity-based experiencing of obligations of employees, representing the precondition for establishment and maintaining the professional ethos. Nowadays, each corporation or organization all over the world spends much money for creation of internal ethos through adequate training of employees and managers, and investments in internal communication media" (Kosewski p. 4).

In everyday situations, people do not want to lose respect for themselves and expect adequate level of respect for others. Unfortunately, the lack of respect for autonomy of the person in interpersonal relations remains to be observed in the workplaces, offices and service-providing institutions.

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EMPLOYMENT AS A BASIS OF SOCIO-ECONOMIC FREEDOM AND SOCIAL RESPONSIBILITY OF EMPLOYERS

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Abstract: The article presents the theoretical and empirical context of the issues being addressed. The concepts of socio-economic freedom were presented, which in turn is an important principle of social responsibility. The main goal of the article was to examine how young people from Generation Y perceive freedom within the market and social responsibility. The research was carried out using a survey method in which open questions were posted. The results were subjected to qualitative analysis, based on which one could draw the following conclusions: the freedom of the respondents to join the labour market with the possibility of free choice of the location and type of work and demonstrated their knowledge of CSR issues.

Keywords: freedom, social responsibility

Introduction

Currently, research shows that Poles feel disturbed in their sense of social and economic freedom, which is mainly related to lack of jobs or freedom to choose a job. Many studies also confirm the identification of having a job as the basic form of human activity with broadly defined freedom. The fact of having a job is about the freedom of individuals from threats such as, for example, unemployment. In today's reality freedom is visibly limited by the economic compulsion of work. Man must work to maintain himself and his family, he/she often accepts various forms of work, while retaining the freedom to have a job with the restriction of one's free choice. We are dealing here with a certain economic enslavement, which often manifests itself in the form of extending unlawful work time or excessive increase of professional duties, etc. At the same time, employers' awareness of social responsibility is growing. They incorporate into the strategy of their companies such solutions that assume respect for the employee, his/her fundamental rights: freedom and dignity.

Taking the above into consideration, the main purpose of this study is to present socio-economic freedom, which in turn is an important principle of social responsibility.

Review of Literature

Taking attempt to describe the issue of freedom of labor (and more precisely the freedom of choice to work) and the social responsibility of employers in this study, it is necessary to outline what freedom at all is, as it is understood. Therefore, the authors will briefly present a chosen concept of freedom.

The problem of freedom is related to the history of man as a conscious being. The issue of human freedom was raised in ancient and medieval thought. During these periods it was considered, among others, by Heraclitus of Ephesus, Sophists, Socrates, Plato, Aristotle, the Stoics, Saint. Augustine and Saint Thomas of Aquinas. Ancient thinkers saw freedom as a particular fact of everyday and political life. In turn, in medieval social thought, freedom has become something internal. According to Saint Augustine freedom is a spiritual space in which human beings can somehow find shelter against external coercion (Zagóra-Jonszta, Pęciak 2016, p. 14). In contrast to the ancient world, the medieval world had a completely different view of the category of freedom. In the Middle Ages, freedom was an expression of individual human independence.

Subsequent reflections on freedom appeared in the views of the precursors of classical economics. The idea of freedom was freed from the influence of philosophy, scholasticism and politics. Freedom in the perception of classical economics depends on a given economic situation or economic system. In other words, only the free market enables the full realization of every human being (Zagóra-Jonszta, Pęciak, 2016, p. 101). It is worth mentioning here the leading figures of this period that raised the question of freedom. Namely: Adam Smith, David Ricardo, James Mill, Thomas Malthus, John McCulloch, John Stuart Mill (junior), Jean-Baptiste Say, Claude Frederic Bastiat.

Significant transformations in the understanding of freedom brought with it the so-called socialism, both, utopian and scientific. According to the critics of contemporary capitalism, the change of the social system (Zagóra-Jonszta, Pęciak, 2016, p. 124), was to guarantee justice and freedom to all. Therefore, according to the critics of capitalism, only the liquidation of labor exploitation²⁰, private ownership of the production means, as well as the class organization of the state and society, would become a stimulus of people's freedom, not only in the economic but also in the social dimension. Man would become independent of other people. In other words, the economic independence of an individual gives one social freedom.

A completely different understanding of freedom can be found in representatives of liberalism. According to John Locke, human freedom is not a privilege granted only to some, or the result of God's will but a natural right for all. An important issue for the authors' study of the topic is the fact that John Locke combined the concept of freedom with work. According to him, work is to be freely chosen by man. In his view, work does not have to be the opposite of freedom, on the contrary, freedom can be deepened and strengthened by it (Milian 2012, p. 220). The point is that in a situation where work can be freely chosen, this work will become a determinant of meeting human needs and not, as it was before, the result of coercion. For the liberals, as L. Milian writes, *human freedom, is "(...) unrestrained by physical enslavement, the ability to move in space and among people, the choice of the type of work, education"* (Milian 2012, p. 221).

A similar approach to freedom can be seen in the view of G. Reisman. According to him, freedom is a condition for the economic security of the individual. In the conditions of freedom, every human, according to his/her interest, often economical, can choose what he/she will do. In the pursuit of economic security, one must have the right to act freely in accordance with one's preferences, including professional ones, in terms of what one considers necessary for own material well-being (Reisman 1998, p. 22).

The presented concept of human freedom in the view of liberals is a model to some extent, because it combines job with its free choice. However, one can not forget that for this freedom to be real, one must have been provided with material background. A person who wants to fully enjoy one's freedom may not be financially dependent on anyone (neither on another person nor on the state). Material independence gives a particular social status, a sense of dignity and, consequently, complete freedom, both social and economic.

Contemporary concepts of freedom found in literature²¹ differ from the one considered herein as a model. In the authors' opinion, socio-economic changes mean that human freedom can no longer be the same as it was for liberals. In today's reality, freedom is visibly restricted by various forms of compulsion for economic work. Nowadays, for example, we are dealing with some economic enslavement, which manifests itself, for example, in the form of extending unlawful work time or excessive increase of professional responsibilities, work in the so-called "gray market" etc.

In the situation of abovementioned economic compulsion, when a person has to work to maintain oneself and the family, often at the level of existential minimum, then one accepts various forms of work, maintaining fictitious freedom to keep the job with many restrictions on one's free choice.

Freedom to choose a job and a place to do it is one of the essential assumptions of corporate social responsibility. Corporate social responsibility has its source in the philosophical idea of responsibility, which is connected with the consequence of the assignment of freedom to man by imposing on him responsibility (Filek 2002, pp. 158-159). This results in the fact that "authentic freedom is aware of its limits" (Jaspers 1965, p. 186). When transferring the philosophical concept to the market, it should be noted that an entrepreneur enjoying economic freedom must also comply with the obligation to be

²⁰ Labor exploitation occurs when someone (the employer) inadequately pays for the employee's work and the effort put into it. However, it should be emphasized here that there are no objective measures that would determine the value - the price of the work performed.

²¹ In contemporary literature, addressing the problems of social and economic freedom, two concepts of freedom appear: negative freedom, which amounts to full, unrestricted freedom of action and positive freedom - limited by certain principles, rules, and law. The authors of the study criticize the naming of these freedoms, because the word freedom and the word "negative" are mutually exclusive. We therefore propose to define it as unlimited freedom, which in fact can lead to disruption of the social order, yet still possessed by chosen categories of people, through a wide range of privileges; and limited freedom.

responsible, eg towards potential employees (Filek 2006, pp. 6-7). This way, the entrepreneur's responsibility is the limit of his/her independence. The authors mention more about the social responsibility in the further part of the study.

Enterprises in their market activities are profit oriented. In order to pursue their own business goals while remaining in line with various stakeholder groups, they must also voluntarily take social interests into account. The idea of CSR - that is, corporate social responsibility - becomes such a link between these two "worlds". Within its framework, enterprises build their competitiveness taking into account social dialogue. Importantly, the most important are solutions that are beneficial both for the enterprise itself and its entire environment, both closer and further. Transparent relationships with clients as well as employees and business partners, transparency of relationships with the local community and the media are important. The concept of corporate social responsibility assumes, on a voluntary basis, combining commitment to social and environmental issues as part of business operations (Skiba 2017 and ca.). A responsible company is able to make profits while shaping social relations and sustainable development in three areas of economics, ecology and ethics (so-called Rule 3 E) (Brzozowski 2003, p. 25). The social, ethical and ecological aspects of running a business are included in the idea of CSR. The CRS concept is also criticized, eg Nobel Prize winner in economics M. Friedman claims that the main goal of enterprises is to maximize profits, and adds "the business of business is business" (Rybak 2007, p. 19).

In the opinion of L. Zbiegień-Maciąg, corporate social responsibility means that it is morally responsible and obliged to respond to the law and society from its activities. It is responsible for: owners, employees, shareholders, clients, creditors, banks, ecological movements, suppliers, cooperators, state administration (Zbiegień-Maciąg, 1997 p.46). CSR practices relate to OCBs (Organizational Citizenship Behaviors) in terms of social identity theory, which suggests that the perceptions of an organization's identity largely affect the strength of employees identification and their subsequent citizenship behavior inside the organization. Dutton suggest that the better reputation employees make with their organization, the more they identify with it, which eventually affects their organizational behavior (Mousiolis, Bourletidis, 2015, p. 512).

According to A. Kwiatek, it is important for socially responsible enterprises to undertake activities that are aimed at preventing and eliminating negative social phenomena such as lack of respect for diversity and discrimination of various social groups (Kwiatek 2014, pp. 152-162). It is important for creating a positive image of the company, and at the same time increase confidence among future and current employees. The trust and satisfaction of employees increases the company's attractiveness on the labor market. Such a strategy not only makes it easier to acquire people willing to work, but also encourages existing employees to stay. Like K. Klimkiewicz, the authors believe that corporate social responsibility can be perceived differently by working people than those seeking a job (Klimkiewicz 2014, p 97). Therefore, the "social responsibility of employers" proposed in the title has found its justification because it is related to the perspective of young people entering the labor market. Perception of employers as entities promoting and respecting the principles of responsibility.

Therefore, the authors proposed their own definition of "social responsibility of the employer". **Thus, "Employer's Social Responsibility" will boil down to all the activities of employers that take responsibility towards employees and the social environment, respecting employees and their basic needs (including the most important-freedom).** Personalized responsibility becomes more effective than the one assigned to the entire organization / company (business).

Methodology of the research

According to E. Robak, the fact of searching a job, especially by representatives from the so-called Generation Y makes employers have to take into account their expectations and needs (Robak 2017, p. 441). As the aforementioned author points out, the generation Y differs from previous generations in terms of mentality, perception of the world and itself and the way they work and what is expected.

Generation Y are optimists who strive for freedom and want to do the work that suits them (Skiba, Kwiatek 2015, p. 226). Therefore, it is the generation that was considered in the research carried out by the authors of the study. Opinions about understanding by the young generation (20-25 years) their freedom associated with choosing a job / employer, understanding the concept of social responsibility of employers, and their experience in this area have become interesting. Opinions were expressed in

questionnaires in open questions, which allowed them to make a free statement. In the pilot research involved 86 people. The results were subjected to qualitative analysis. Representative statements have been cited.

Results and Discussion

Most often, the issue of freedom in the labor market referred to the possibility of free choice of place and type of work.

"Freedom within the labor market is related to the choice of the type of work performed, as well as the manner and place of its execution".

It should be noted that the concept of CSR (corporate social responsibility) is well known to the young respondents. This is probably the result of the knowledge gained from studies, because in the programs of many fields this problem is raised.

"The term social responsibility is associated with sustainable development, where, in addition to the enterprise itself, the employer, the environment in the form of employees and care for their development, satisfaction, as it determines the development of the company are considered."

The way of perceiving and direct experience as to employers' compliance with the principles of responsibility is very interesting. They perceive responsibility on two sides, i.e. an employee responsible for their work, as well as the employer's liability towards them - as employees.

"Social responsibility in practice manifests as follows: employees are responsible for performing their tasks as part of work, while the employer is responsible for its employees, for example, performing activities such as ensuring safe working conditions, eliminating threats, resolving possible conflicts, uphold human dignity – of every employee, without discriminating any of them ".

Very often, however, they acknowledge that employers adhere to the principles of responsibility in general, but they rarely experience it.

"Too few programs for young employees, or not at all."

They most often use special training, integration events etc. for young people. The young respondents, in their opinions, appreciate the efforts of employers in this area, but their expectations are much higher.

Similarly, other studies show a positive assessment of CSR activities undertaken by companies. CSR activities arouse their positive feelings towards the company (REPORT 2016). In the cited survey of the 2016 CSR Barometer, the so-called "Good CSR practices", that is activities in companies for social responsibility are indicated. And so several of them conducted interesting activities, from the point of view of research conducted by the authors, addressed to young employees. In BEST company, the adaptation process includes three groups: new employees (2 days of training, presentation to other employees, presentation of the so-called welcomepack: Code of ethics, Handbook, "What should you know about work in BEST?" And company gadgets); operations division (two-month cycle regarding IT systems support, receivables management and customer service); new managers (supporting the development of managerial competences in internal promotion). Volkswagen Poznań introduced a comprehensive, standardized implementation program for new employees, called StartUp. As part of the program, employees learn about all the key areas of the company and the principles of its operation. Particularly noteworthy are the activities undertaken in Carrefour Polska, where the average employee age is 39 years. The Management Board and young leaders employed in the company's headquarters and operations department benefit from the potential of diversity and the exchange of perspectives in everyday business practice. The Comex Shadows pilot project is based on intergenerational dialogue. Executive Directors and young generation Y employees from different areas - consult key decisions. Since 2016, 12 employees under the age of 30 have their mentor in the Carrefour Directorate General, and representatives of the Board have 12 partners in the Y generation. The practice affects the improvement of strategic competences and enriches expert knowledge of young people, broadening perspectives and innovation of experienced employees. BSS, a Pelion Group company, launched a new program - Business Academy. Trainees and young employees who often have only theoretical knowledge and are not ready to translate it into professional activities. The choice of the path of development is difficult for them, and often also random. The company thus meets and at the same time gives the opportunity to select talented people by the employer. This program is aimed at the youngest employees, trainees and apprentices of the company. The Business Academy is a series of workshops on subjects closely related to the activities of enterprises, in the

areas of finance, reporting, taxation, law, labor law and controlling. The workshop leaders are experienced managers, BSS experts, including auditors. At Credit Agricole Bank Polski, the "Let's share knowledge practice" program was created, consisting of internal trainings / specialist workshops for employees run by experts-staff in a given field (including the Board) and the internal library of the bank - BiblioteCA.

More good examples could certainly be presented, but not all of them are made public in reports. In particular, employers of medium and small enterprises act responsibly both towards their employees and the external environment, however, it is so obvious to them that they do not reflect on making these activities public.

Conclusion

The result of implementing social responsibility should be freedom of work choice, employment stabilization, higher level of employee satisfaction and their families, good external image, avoiding conflicts within the organization, and, as a consequence of the above actions, building a competitive advantage in relation to other organizations.

Understanding by the test of freedom on the labour market disadvantage to the possibility of freely choosing the location and type of work.

Respondents show a high knowledge of the issue of CSR (corporate social responsibility), where it can be assumed that it will translate into a high awareness of their activities within the market.

See the sort of responsibility on both sides. the employee responsible for their work, as well as the employer's responsibility to them as employees. The subjects young people, in their opinions, appreciate the efforts of employers in this respect, however, their expectations are much higher.

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INNOVATIVE BEHAVIOUR AND COMPETITIVENESS OF SMALL AND MEDIUM-SIZED ENTERPRISES IN POLAND

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Abstract: Small and medium-sized enterprises operating under conditions of uncertainty should introduce innovative solutions strengthening their competitive position. As numerous studies indicate, SMEs are intensifying the efforts to increase their ability to implement innovative changes. The propensity of these entities for innovative behaviour has a direct impact on their possibilities of conducting innovative activities. The aim of the paper is to assess the impact of the propensity of SMEs towards innovative behaviour in terms of building their competitive advantage. The implementation of this objective required on the one hand, a review of the relevant literature and previous studies on the propensity of SMEs towards innovative behaviour, while on the other hand, conducting self-research among small and medium-sized enterprises. A quantitative study was carried out among 400 small enterprises in Poland in December 2017 – January 2018 using a questionnaire-based survey administered by means of the CATI method. On the basis of the quantitative study conducted, the research hypothesis concerning the existence of a relationship between the degree of novelty of innovative changes introduced by a given company and the competitive advantages used by it was verified positively.

Keywords: competitiveness, innovative behaviour, small and medium enterprises, competitive advantage

Introduction – Literature Review

In order to develop and survive, small and medium-sized enterprises should focus on building a competitive advantage based on their potential. Competitiveness is understood as the ability of a given company to satisfy the needs of customers more efficiently compared to its competitors and as the ability to take quick and appropriate actions to effectively manage resources (Welter, Smallbone 2011; Matejun 2014; Akben-Selcuk 2016). According to M. Stankiewicz, competitiveness is the ability to efficiently achieve a company's goals on the competitive market arena (Stankiewicz 2002, p. 36). Competitiveness can also be seen as a company's ability to manage its potential and capabilities to achieve a competitive advantage (a factor approach) and as a company's position in relation to other entities, determined by comparing the quality and results of its performance in “superiority and inferiority” terms (operational approach) (Man, Lau, Chan 2002; Adamik 2012; Siddik 2018).

Building competitiveness of small and medium-sized enterprises based on the introduction of innovations is a complex activity, starting with the evaluation of their competitive potential (Urbanowska-Sojkin 2011, p. 310), which leads to the identification of sources of competitive advantage. A competitive advantage is a result of using by a given company a unique (specific only for this company) set of instruments of competition, which enables it to achieve greater value added than other companies operating in the same market. The literature distinguishes many classifications of competitive advantage. In terms of the potential of an enterprise, there exist: an internal competitive advantage (associated with building a more efficient company's potential of resources and competences) and an external competitive advantage (associated with a given company's unique market distinctiveness). From the point of view of the market in which a company operates, a local and global advantage is mentioned. The literature also mentions a natural advantage – related to the location of a company, a relational advantage – related to links with business partners, an informational advantage – resulting from a company's better access to information, a flexibility advantage – associated with flexibility in operation, and a time advantage – based on the skilful shortening of the time needed to carry out processes in an enterprise (Adamik 2011, Welter, Smallbone 2011). The following sources of competitive advantage of small and medium-sized enterprises are indicated: flexibility in operation (Piasecki 2001; Zeebaree, Siron 2017), operating in a niche market, quality of products and services, applied technology, established brand and reputation, managerial competences, as well as relations with suppliers and buyers (Tylzanowski 2012). Another source of competitive advantage may also be the distinctive features of a given enterprise, such as: its internal structure, reputation, innovations as well as strategic resources (Nogalski, Karpacz, Wójcik-Karpacz 2004, p. 28; Karpacz 2011, p. 24). The effect of the competitive advantage and strategy used is the competitive position achieved (Urbanowska-Sojkin 2011; Appiah, Selassie, Burnley 2015; Akben-Selcuk 2016).

The specificity of small and medium-sized enterprises determines the framework for the competitive strategies chosen. The formulation of strategies in these entities is often focused on reducing costs and increasing the quality of products and services offered based on innovative changes introduced. Innovation is therefore treated as one of key factors determining the gaining and maintaining of competitive advantage in the market, and often as a prerequisite for the survival and development of a company due to its rapid response to changes occurring in the broadly understood environment.

Small and medium-sized enterprises are intensifying the efforts aimed at increasing their ability to create innovative products or organisational solutions in order to improve their competitive position. These activities can be considered as innovative behaviour oriented towards introducing a range of new or improved products or services offered by an enterprise, as well as new or improved production methods or methods of service provision along with improved organisational methods. However, the road from an idea to the introduction of innovation is very tedious and time-consuming, and it often involves overcoming many barriers. The most important factors hampering innovation processes include: a lack of funds, too high costs of introducing innovations, a lack of sources of external financing, uncertain demand and access to knowledge.

The aim of the paper is to assess the impact of SMEs' propensity for innovative behaviour on shaping their competitive advantage. The following research hypothesis was adopted for this purpose: *There is a relationship between the degree of novelty of innovative changes introduced by a company and the competitive advantages used by it.*

Research methods and characteristics of the enterprises surveyed

The adopted research hypothesis was verified on the basis of the analysis of the results of the primary study which was conducted in the period November 2017 – January 2018 with the use of the CATI and CAWI technique among 400 small innovative²² enterprises. The sampling frame was the database of the Market Research and Analysis Centre (ASM) and the sampling unit (and the statistical unit in the study) was the so-called legal unit (which is an approximate equivalent to an enterprise with all its branches) with the registered office and/or production plant based in the territory of the Republic of Poland.

In the first stage of the study, 20,000 small enterprises (employing 10–49 persons) were drawn, out of which 8,000 companies were selected on the basis of a screening question. The realised sample size i.e. the number of received, completed questionnaires, was 400. The conducted quantitative research, on the one hand, made it possible to reach more business entities and ensure the degree of anonymity of the respondents (it was often a prerequisite for conducting the survey). On the other hand, there was a high degree of difficulty associated with completing the survey, e.g.: partially filled questionnaires and problems with the interpretation of some questions.

The surveyed small enterprises were mainly service enterprises – 45.7%, manufacturing enterprises – 39.3%, and less often commercial enterprises – 15.0%. The spatial market structure of the surveyed enterprises was dominated by the domestic market – 40.8%, followed by the regional market – 31.4%, and the international market with the smallest share of 27.8%.

The analysis of changes in the turnover of the surveyed enterprises over the last three years has shown that 66.0% of the entities recorded an increase, 27.7% achieved the same level of turnover, and only 6.3% observed a decrease. Such a distribution of responses may result from selecting for the study only innovative enterprises, which are often oriented towards growth and development by creating lasting competitive advantages based on introduced innovative solutions. This may result in the growth of such an enterprise understood as a quantitative category, expressed, for example, in an increase in turnover, employment or revenues, as confirmed by the conducted research.

²² An innovative enterprise is an enterprise which in the last three years has introduced changes in its products, services, production or organisational methods. These changes may include (i) the introduction of new or improved products or services offered by a given enterprise, (ii) the introduction of new or improved production methods or methods of service provision in a given enterprise, (iii) the introduction of new or improved organisational methods.

Results

The degree of novelty of introduced innovative changes in the surveyed small enterprises can be assessed as low, as 55% of the respondents rated those changes as new for the enterprise and the local market, and only 13.5% as new for the international market. This can indicate that the implemented innovations are mainly incremental, consisting primarily in improving the products/services, processes and organisational methods of a given enterprise. The assessment of the competitive position of the surveyed enterprises was much better than the assessment of the novelty of changes introduced, as 71.4% of the surveyed enterprises assessed their competitive position as very strong and strong (19.8% and 51.6% respectively), 26% as average, and only 2.6% as weak and very weak.

Another area of research was the respondents' indication of the three most commonly used competitive advantages according to their importance for the companies surveyed (as the first, second and third in the ranking, i.e. the most important, very important and important). The most important – the first in the ranking – competitive advantages used by the enterprises surveyed include: high quality of products/services (52.8% of responses), a wide range of products offered (12.5% of responses), competitive prices and high quality of customer service (respectively 12.3% and 11.8% responses). The respondents indicated the following competitive advantages as very important – the second in the ranking: a wide range of products offered (24.3% of responses), high quality of customer service (23.5% of responses) and competitive prices (18.6% of responses). Important competitive advantages – indicated as the third in the ranking by the respondents – include: high quality of customer service (19.7% of responses), competitive prices (16.3% of responses), possessed resources and cooperation with partners (12.5% and 12.3% responses, respectively).

Table 1. Competitive advantages used by the enterprises surveyed*

	First choice in the ranking	Second choice in the ranking	Third choice in the ranking
High quality of products/services	52.8%	11.2%	6.5%
Wide range of products	12.5%	24.3%	9.8%
High quality of customer service	11.8%	23.5%	19.7%
Competitive prices	12.3%	18.6%	16.3%
High innovativeness	2.8%	4.3%	9.3%
Resources owned	1.5%	5.5%	12.5%
Cooperation with partners	1.5%	5.5%	12.3%
Location of business activity conducted	2.5%	4.3%	9.3%
Effective marketing	2.3%	2.8%	4.3%

N = 400

*The respondents indicated three answers according to their importance – the first, second and third choice which meant the most important, very important, important.

Source: The author's own compilation

The aim of the conducted research was also the assessment of the impact of innovative activities undertaken by small enterprises on shaping their competitive advantage. In order to achieve this objective, the following dependencies were examined: whether the degree of novelty of innovations introduced and the dominant (in terms of turnover) range of market activity have an impact on the competitive advantages used by a given enterprise.

In the case of the first dependency assessment, the analysis procedure began with verifying whether the obtained research results met the chi-square test assumption, i.e. whether all the expected counts were greater than or equal to 5, and then the test was used to assess whether there existed a statistically significant relationship between the analysed variables i.e. the degree of novelty of innovations introduced and the competitive advantages used by a given company.

When examining whether there exists a dependency between the variables, the following hypothesis was verified: H_0 : the variables analysed are independent against alternative hypothesis H_1 : the variables analysed are not independent.

The calculations performed showed (see Table 2) that in 5 out of 9 analysed competitive advantages used by the enterprises surveyed (such as: high quality of products/services, competitive prices, high innovativeness, cooperation with partners and location of business activity), H_0 should be rejected in favour of H_1 , as the probability in the chi-square test is lower than the adopted level of significance

$\alpha=0,1$, thus the studied relationships are statistically significant, i.e. there is a dependency between the degree of novelty of innovative changes introduced and the competitive advantage used by a given company. In order to check the strength of this dependency, the contingency coefficient (C) was calculated, which indicated the existence of a weak relationship between the analysed variables.

Table 2. Statistical calculations for the chi-square test and the contingency coefficient C for the studied dependency between the degree of novelty of innovative changes introduced and the competitive advantage used

Competitive advantages used by the enterprises surveyed	Chi-Square Statistic	Chi-Square P-Value	Contingency coefficient (C)
High quality of products/services	7.009	0.067	0.173
Wide range of products	1.871	0.600	-
High quality of customer service	3.724	0.714	-
Competitive prices	10.833	0.022	0.249
High innovativeness	27.975	0.000	0.364
Resources owned	3.340	0.342	-
Cooperation with partners	7.447	0.081	0.197
Location of business activity conducted	13.948	0.003	0.287
Effective marketing	5.266	0.153	-

$N = 400$

Source: The author's own compilation

In the case of the second dependency assessment, i.e. the impact of the company's market activity range on the competitive advantages used, the analysis procedure began with verifying whether the obtained test results met the chi-square test assumption, i.e. all the expected counts were greater than or equal to 5, and then the test was used to assess whether there existed a statistically significant relationship between the analysed variables.

When examining whether there exists a dependency between the variables, the following hypothesis was verified: H_0 : the variables analysed are independent against alternative hypothesis H_1 : the variables analysed are not independent.

The calculations performed showed (see Table 3) that in 4 out of 9 competitive advantages analysed (such as: high quality of products/services, a wide range of products, high innovativeness and location of business activity conducted), H_0 should be rejected in favour of H_1 , as the probability in the chi-square test is lower than the adopted level of significance $\alpha=0,1$, thus the studied relationships are statistically significant, i.e. there is a dependency between the degree of novelty of innovative changes introduced and the competitive advantage used by a given company. In order to check the strength of this dependency, the contingency coefficient (C) was calculated, which indicated the existence of a weak relationship between the analysed variables.

Table 3. Statistical calculations for the chi-square test and the contingency coefficient C for the studied dependency between the dominant (in terms of turnover) range of the surveyed enterprises' market operations and the competitive advantage used

Competitive advantages used by the surveyed enterprises	Chi-Square Statistic	Chi-Square P-Value	Contingency coefficient (C)
High quality of products/services	7.640	0.051	0.231
Wide range of products	8.678	0.038	0.263
High quality of customer service	1.602	0.800	-
Competitive prices	0.523	0.770	-
High innovativeness	16.831	0.000	0.380
Resources owned	3.577	0.167	-
Cooperation with partners	2.196	0.334	-
Location of business activity conducted	17.549	0.000	0.392
Effective marketing	0.334	0.842	-

$N = 400$

Source: The author's own compilation

Conclusion

According to the author of the paper, small and medium-sized enterprises are undertaking more and more intensive activities aimed at increasing their ability to create and market launch innovative products as well as introduce new processes and organisational solutions. SMEs' innovation potential and ability to use it for their development, described as "innovation capacity", have a direct impact on their capabilities of conducting innovative activity. Building a competitive advantage in small and medium-sized enterprises requires the building of both internal (related to, among others, the management process and organisational structure, personnel qualifications as well as knowledge and organisational culture management) (Lawson, Samson 2001) and external (including the creation of a network of connections with the sphere of science and technology or the innovative business environment) innovation capacity (Zastempowski 2013).

In order to achieve a competitive advantage, SMEs are introducing innovative changes. However, the degree of novelty of these changes is still low, they are new mainly for a given company or the local market. It can therefore be assumed that the implemented innovations are incremental, consisting mainly in the modification of products/services or processes. This kind of innovation, as research indicates, can be a competitive advantage, which is declared by more than half of the surveyed enterprises. A given company's market range has an impact on the competitive advantages used by it. This was confirmed by the research in the case of 4 out of 9 analysed competitive advantages, i.e. high quality of products/services, a wide range of products, high innovativeness and location of business activity conducted.

On the basis of quantitative research, the research hypothesis concerning the existence of dependency between the degree of novelty of innovative changes introduced by a given enterprise and the competitive advantages used by it was verified positively in 5 out of 9 analysed competitive advantages, i.e. high quality of products/services, competitive prices, high innovativeness, cooperation with partners and location of business activity conducted.

Nowadays, in order to gain an effective competitive advantage, small and medium-sized enterprises should seek to stay ahead of the competition by searching for everything that is innovative and difficult to imitate. SMEs that systematically strengthen their competitive position will be able to survive in the market. A competitive advantage can be gained mainly due to the constant improvement of the level of innovativeness, which results in obtaining adequate efficiency. Therefore, it is essential for SMEs to carry out research and development activities and to create an innovative organisational culture that facilitates innovative behaviour of managers and employees.

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THE IMPACT OF THE ENVIRONMENTAL DIMENSION TO STRENGTHEN THE COMPETITIVE ADVANTAGE AND FINANCIAL PERFORMANCE IN INDUSTRIAL FIRMS

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Abstract: This paper highlights the impact of the environmental dimension as one of the contemporary strategic tools in evaluating the performance of firms and explores the application of the environmental dimension and its impact on the competitive advantage and financial performance of industrial firms. The main goal of the herein paper is to build up the theoretical background for future empirical research. This research is a review based on the analysis of previous studies. The most important findings indicate that there is a positive relationship between environmental protection and competitive advantage and financial performance. Imposing additional costs on firms in order to comply with environmental issues does not have a negative impact on its financial performance as it would increase the competitive advantage and market share; and firms that develop innovative and effective solutions to new requirements related to environmental protection have greater advantages pertaining to the overall competitiveness and financial performance.

Keywords: financial performance, competitive advantage, environmental dimension

Introduction

The rapid developments in the modern production environment, such as the increased local and international competition, the speed of technological progress, the diversity of customer needs, and the short product life cycle, showed inadequate traditional and management evaluation performance methods to cope with these developments, therefore, they imposed new dimensions to the concepts of cost, measurement accuracy, and cost comparisons methods which related to environmental impact (PMI, 2012) and related also to externalities (Pindyck & Rubinfeld, 2013, p. 661).

Externalities can arise between producers, between customers, or between consumers and producers. They can be negative when the action of one party imposes costs on another party or positive when the action of one party benefits another party. A negative externality occurs, for example, when a steel plant dumps its waste in a river that fishermen downstream depend on for their daily catch. The more waste the steel plant dumps in the river, the fewer fish will be supported. The firm, however, has no incentive to account for the external costs that it imposes on fishermen when making its production decision. Furthermore, there is no market in which these external costs can be reflected in the price of steel. A positive externality occurs when a home owner repaints her house and plants an attractive garden. All the neighbors benefit from this activity, even though the home owner's decision to repaint and landscape probably did not take these benefits into account (Pindyck & Rubinfeld, 2013).

Those factors have led to the emergence of measuring environmental performance as one of the tools of strategic performance, which focuses on the hidden side of profitability, exemplified by the cost resulting from reducing the cost and rationalization of expenditure, provided that it is done from a strategic perspective that leads to creation of greater value for the consumer; because adding extra value to the final product is considered strategic goal which is achieved through integration of the activities during the product life cycle starting from the product design stage and even after-sales service (PMI, 2012).

Therefore, this research will highlight on measuring environmental impact as one of the strategic management evaluation performance methods, its impact on achieving success in the competitive field of industrial firms, and how measuring the environmental impact will affect on the competitive advantage and financial performance in the end.

Research methodology

This paper is a theoretical, which provide a wide literature review and discussion about the relevance of environmental dimension in industrial firms. It synthesizes the existing literatures between environmental dimension from side, and the competitive advantage and financial

performance from the other side. In order to achieve the goal of this research, a wide literature survey was carried out the environmental dimension in industrial firms, and the ways of improving the competitive advantage and its impact on financial performance. The main goal of this literature is to lay down the theoretical background for further studies.

The collection of literature sources was made using a various database of Ebscohost, Emerald and google scholar, and other search tools and institutional library, where the most relevant literature sources were found. Keywords like environmental dimension, environmental accounting, competitive advantage and financial performance were used for achieving the relevant literature sources.

The basic pillars of the literature review were connected to three fields. Firstly, the impact of environmental dimension in industrial firms as the initial problem of this research. Secondly, the theory of competitive advantage was discussed parallel to the third dimension which was the financial performance.

As the main goal of the research was to build up the theoretical background for the future empirical research. The authors highlighted on the benefit of the application of environmental dimension and its impact on the competitive advantage and its reflection on financial performance. This research can be developed for future study through collecting statistical data from industrial firms' reports and financial information, in order to analyze and come up with numerical indicators.

The time was a main limitation of this work. Thus, this article was a result of a desk research, where literature survey outlines the first step of the future research steps. In the next step of the research, the theoretical framework will be applied for conducting an empirical survey.

The importance of the research comes from the aspects. Firstly, Managerial needs comprehensive and integrated information on all aspects of performance and costs associated with it to be able to run it in a way that leads to strengthen competitiveness and financial performance. Secondly, the growing importance of measuring environmental performance as a way to manage cost and profit aiming to reduce the overall cost of product through the entire life cycle from the design stage. Thirdly, the need of the application of the research topic in the light of the increasing competition and rapid changes in the modern production world environment and its impacts on the reality of the industrial environment.

Literature review

Moen and Bramming Jørgensen (2010) investigated how environmental ("green") factors may influence on international business activities and the competitiveness of firms. Study found that the environmental factor must be expected to be improved in most industries, and firms that perform weak in these dimensions will weaken their competitiveness compared to other firms in the industry. Authors present twelve specific recommendations for managers, aimed at improving firm competitiveness in international markets.

Fraj-Andrés, Martínez-Salinas, and Matute-Vallejo (2009) study argued that since it implied a reduction in quality and quantity of the natural resources, environmental degradation is a present day problem that requires immediate solutions. This situation is driving firms to undertake an environmental transformation process with purpose of reducing the negative externalities that come from their economic activities. Within this context, environmental factors are an emerging business philosophy by which organizations can address sustainability issues. Moreover, Fraj-Andrés et al. (2009) explained that environmental factors and orientation are seen as valuable strategies to improve a firm's competitiveness and increase its financial performance. Authors proposed and test a model that analyses how the implementation of environmental issues within a firm's marketing strategy and orientation influences organizational results. Data were obtained through a survey sent to Spanish manufacturing firms. Results show that environmental factors positively affect firms' operational and commercial performance and this improvement will influence their economic results.

Furthermore, study was conducted by Stefan and Paul (2008) aimed to review empirical evidence of improvement in both environmental and economic or financial performance. In each case, the researchers try to identify the circumstances most likely to lead to a "win-win" situation, better environmental and financial performance. They pointed out that the conventional wisdom concerning with environmental protection is that it comes at an additional cost imposed on firms, which may erode their global competitiveness. However, the authors return to point out that during the last decade, this paradigm has been challenged by a number of, who argued basically that improving a company's environmental performance can lead to better economic or financial performance, and not necessarily to an increase in cost.

Another study carried out by Bonifant, Arnold, and Long (1995) claimed that greater flexibility in the structure and focus of environmental regulation is opening up opportunities for businesses to gain a competitive edge through innovative compliance strategies. They viewed the growing up in environmental demands in concern with fearing highly restrictive and costly new rules. Study found that even the environment looms larger in production costs, innovative companies are cutting their expenses through more efficient methods of compliance, and firms can capture markets with products that help customers meet their own compliance requirements.

Porter (2000) highlighted on the major environmental regulations of the last 20 years in the United States and focused primarily on high-volume byproducts of manufacturing, such as sulfur and nitrogen in fossil fuel combustion, or organic matter in waste water from wood pulping. These regulations attempted to control the release of substances ancillary to the main event--the generation of heat for electricity, or pulp for paper-making. Today's regulations, in contrast, are more often aimed at eliminating the releases of compounds, which are used in and then discarded from production processes. Regulation of these types of materials is inherently flexible because opportunities exist to eliminate the substance from production by adopting alternative raw materials or processes to achieve the same outcome. Porter (2000) concluded that innovation in response to environmental pressure can lead to competitiveness.

López-Gamero, Molina-Azorín, and Claver-Cortes (2009) tested whether or not the resource-based view of the firm mediates the positive relationships of proactive environmental management and improved environmental performance with competitive advantage, which also has consequences for financial performance. They also checked the possible link between the adoption of a pioneering approach and good environmental management practices. Findings support that early investment timing and intensity in environmental issues impact on the adoption of a proactive environmental management, which in turn helps to improve environmental performance. The findings also showed that a firm's resources and competitive advantage act as mediator variables for a positive relationship between environmental protection and financial performance.

King and Lenox (2001) had a question in their research which was: Does stronger environmental performance really lead to better financial performance? or is the observed relationship the outcome of some other underlying firm attribute? Does it pay to have clean running facilities or to have facilities in relatively clean industries? In order to explore these questions, they analyzed 652 U.S. manufacturing firms over the time period 1987–1996. Although they found evidence of an association between lower pollution and higher financial valuation, they found that a firm's fixed characteristics and strategic position might cause this association. their findings suggested that “When does it pay to be green?” may be a more important question than “Does it pay to be green?”.

Watson, Klingenberg, Polito, and Geurts (2004) proposed, and tested, a framework to quantify environmental management system (EMS) improvements to determine the impact of EMS strategies on financial performance. They found that the cost of reducing environmental impact does not seem to significantly impair a company's profitability; the benefits produced by EMS may not be fully realized by existing accounting practices; and companies employing EMS strategies may have not fully exploited their competitive position.

Christmann (2000) applied a research on the effects on firm performance of “best practices” of environmental management, which are supposed to enable firms to simultaneously protect the environment and reduce costs, has so far ignored the roles of existing firm resources and capabilities. Drawing on the resource-based view of the firm. Results based on survey data from 88 chemical companies indicated that capabilities for process innovation and implementation are complementary assets that moderate the relationship between best practices and cost advantage, a significant factor in determining firm performance.

Jones (2010) Developed a multilayered theoretical model to underpin environmental accounting and reporting. It begins with the fundamental premise that environmental change puts the planet at risk. Given that industry has a great impact on the environment and that society legitimates industry it is argued that industry has a duty to act. There is thus a need for a new holistic accounting which captures corporate environmental impacts. Moreover, it is argued that companies because of their stewardship function should report their environmental accounting to their stakeholders.

To gain economic benefits, industrial activity fundamentally depends on resources necessary to perform manufacturing operations and transform raw materials into products. In return resource price volatility and supply risks have direct influence on the competitive edge of companies and their capability of performing their industrial activity in sustainable and profitable manner (Lieder & Rashid, 2016).

Duman, Yılmaz İcerli, Yücenurşen, and Apak (2013) analyzed the environmental cost management within the activities of business to realize efficiently and effectively, to elevate market value and carrying to future. Moreover, they explained the organizational structure, activities and their effects on the environmental costs in the case that the activities of business to be sustainable and environment friendly organization. (Duman et al., 2013) concluded that Main accounts and subsidiary accounts should be opened to monitor the environmental costs just as the accounts monitor marketing, management, R & D expenses and they must take place in the uniform chart of accounts functionally. In addition, the environmental effects of operating results related to the sector of businesses should be put forward. The environmental problems will arise depending on investment projects planned for the future and solution plans with the environmental reports also must be presented.

Leontina (2007) gave an overview of the approaches of environmental cost accounting, and which type of costs should be adopted, as there is much debate on this subject, due to the fact that of the many different opinions as to the definition of the term environmental cost. This study found that decision makers fail to recognize the economic value of natural resources as assets, and the business and financial value of good environmental performance. Beyond “goodwill” initiatives, a few market based incentives exist to integrate environmental concerns in decision-making. (Rakos & Antohe, 2014) highlighted the importance of the impact of the economic activities on the environment, and of its integration in the decisional and financial system of economic entities, and they found that environmental accounting, by the environmental cost, is a fundamental instrument in providing pertinent information for making correct decisions in the economic entities, and in the publication and dissemination of this information in the annual reports and situations of economic entities.

Furthermore, (Stefan and Paul (2008)) aimed to review empirical evidence of improvement in both environmental and economic or financial performance. They analyzed the mechanism involved in each of the following channels that increase potential revenue or reduce cost in order to get better environmental practices such as: better access to certain markets; differentiating products; selling pollution-control technology; risk management and relations with external stakeholders; cost of material, energy, and services; cost of capital; and cost of labor. In each case, the researchers try to identify the circumstances most likely to lead to a “win-win” situation, better environmental and financial performance. They pointed out that the conventional wisdom concerning with environmental protection is that it comes at an additional cost imposed on firms, which may erode their global competitiveness.

Results

Based on reviewing the previous literatures, the main finding indicated that:

- There was a positive relationship between environmental protection, and competitive advantage and financial performance.
- Firms that develop innovative and effective solutions to new requirements related environmental protection have greater advantages pertaining to competitiveness and financial performance.
- Firms which were complied with regulations related to environmental protection can capture markets and increase its competitive advantage.
- Cutting expenses through more efficient methods of compliance, firms can capture markets with products that help customers meet their own compliance requirements.
- Impose additional cost on firms to be complied with environmental issues doesn't have negative reflection on its financial performance, because it would increase the competitive advantage and market share.

Discussion

It's obvious that the absence of any accounting standards under international financial reporting standards (IFRSs) and international accounting standards (IASs) address the environmental dimension to guide firms in how to measure and calculate the negative externalities, this lead to weaken in calculations and different financial results. More importantly, government regulations are still ineffective in a lot of countries regarding to the environmental issues which lead to non-compliance among industrial firms.

Conclusion

The main conclusion indicated that there are some of hindrances that reduce the accurate measurement of the two dimensions; competitive advantage and financial performance, such as externalities, whether positive or negative externalities. Moreover, the unawareness of both sides, industrial firms and public (customers) regarding the importance of environmental dimension, where the public don't prefer to buy higher price friendly-products to the environment as they perceive that the other non-friendly products to the environment have the same quality with less prices, decrease the competitive advantage and financial performance dimensions among industrial firms which complied with environmental regulations relative to the other industrial firms. On the other hand, the unawareness of industrial firms regarding the importance of environmental dimension as they perceive that taking into consideration this factor will decrease its financial performance.

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THE ROLE OF MARKETING IN CAPITAL MARKET: A REVIEW STUDY AND PROPOSED THEORETICAL FRAMEWORK

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Abstract: The capital market is like other markets in achieving corporate objectives in accessing finance for projects, as well as satisfying the desires of investors in obtaining attractive returns on their investments. Therefore, it is necessary to use all the available resources by listed companies to maximize shareholder value. The purpose of this paper is to examine the impact of marketing as one of the critical resources of a firm on the capital market by identifying the relationship between marketing actions and company performance. The review study is adopted as the methodology by underlining the “marketing-finance interface” perspective in order to explain the mechanisms and assumptions that control the linkage between both areas. The theoretical framework was proposed as the first step in research applications in both marketing and financial literature.

Keywords: marketing-finance interface marketing actions, capital market, company performance

Introduction

Nowadays, marketing has become one of the pivotal resources of firm, plays a crucial role in value creation as well as performance improvement as intangible asset, (Cacciolatti, Lee, 2016,p.5598), so literature analyzed and still have discussed the impact of marketing applications on firm performance on one hand and ways in which it affects particularly in long-term. Relying on traditional standards such as sales growth and customer satisfaction is not completely appropriate to measure the outcomes of marketing activities, without taking into account capital market measurements that leads to the company's original goal of maximizing owners' wealth, in other words, the relationship between product market and capital market is reflected in the interaction between marketing and other functions, especially finance (Ratnatunga, Hooley 1990, p.29; Srivastava, Tasadduq, Liam 1998, p. 2). The “marketing-finance interface” perspective shows the impact of the financial and non-financial elements embodied in the company's value, for instant, lev & Zarowin(1999, p.354) pointed to that association between share return and accounting profit is less significant because of its inability to include some significant and intangible elements like marketing actions. As well, Wisniewski (2016,p.20) demonstrated that the rational economic factors illustrate a small percentage of share return volatility which is five to thirteen times more than that estimated by rational dividend discount models. Therefore, the trend toward to "marketing-finance interface" has grown to contribute to solving the puzzle of market value.

Table 1 shows the traditional assumptions of marketing compared to a new trend of marketing-finance interface' assumptions based on 9 criteria.

This paper attempts to answer the question of what role does marketing play in capital market? And what are the methods that explain the effect of marketing actions in the financial performance of the company, through a review of literatures the relationship between marketing applications and indicators of the capital market had been examined in the light of “marketing-finance interface” perspective, in the addition to suggest a proposed theoretical framework to use marketing actions more effectively to gain favorable results in the capital market the company is listed on, as the first step to a future research.

The remainder of the paper is structured as follows. Theories and hypotheses are presented in Section 2 present the theories of the relationship between marketing and firm performance in the capital market. The measurements are used as variables included in Section 3, section 4 presents a proposed theoretical framework for a marketing role in the capital market. Section 5 presents the conclusion of the paper.

Table.1 comparative assumptions about marketing-finance interface

critierion	Traditional assumptions	Emerging assumptions
Purpose of marketing	Create value for customers; win in the product marketplace	Create and manage market-based assets to deliver shareholder value
Relationship between marketing and finance	Positive product-market results translate into positive financial results	Marketing-finance interface must be managed systematically
Perspective on customers and channels	The object of marketing's actions	A relational asset that must be cultivated and leveraged
Input to marketing analysis	Understanding of the marketplace and organization	Financial consequences of marketing decisions
Conception of assets	Primarily specific to the organization	Result from the commingling of the organization and the environment
Marketing decision-making participants: internal	Principally marketing professionals; others if deemed necessary	All relevant managers irrespective of function or position
Marketing stakeholders: external	Customers, competitors, channels, regulators	Shareholders, potential investors
What is measured	Product-market results; assessments of customers, channels, and competitors	Financial results; configuration of market-based assets
Operational measures	Sales volume, market share, customer satisfaction, return on sales, assets, and equity	Net present value of cash flow; shareholder value

Source: Srivastava, Tasadduq, Liam, 1998

Theories and assumptions of marketing and firm performance relationship in the capital market

At the time that finance research developed in the company's evaluation area, marketing has been excluded (Ryoo, Jeon, Lee 2016, p. 243). Additionally, the impact of marketing actions in the product market on financial performance could be specified endogenously because marketing is very isolated from the company value as well as it would be difficult to realize all links between the two variables which leads to incorrect statistical results. (Luo & Jong 2012,p.605)

Generally, Several economic and financial theories have been adopted by scholars as an interparliamentary method to elucidate marketing role in firm performance in marketing, accounting, and finance areas.

According to resource-based view (RBV), the company has a lot of not identical recourses and capabilities are used to improve performance and thus create value (Kamboja, Goyalb, Rahmanc 2015,p.406). as well the capabilities are a key factor in the acquisition of competitive advantage as well as in creating value (Cacciolatti, Lee 2016,p.5598). As that marketing resources represented by any marketing activity that require marketing spending, (Narasimhan, Rajiv, Dutta 2006, p. 511) moreover, marketing capability refers to manner to recognize markets and connect with costumers or a set of marketing resources to achieve sales objectives and customers satisfaction (Vorhies, Morgan 2005,p.27; Keller, Lehmann 2003,p.81), in th context of RBV in marketing , Angulo i in (2017) invistegated the relationship between marketing measured by advartising and promation spendings and long term performance measured by stocks returns measured by three-factor model as a Capital Asset Pricing Model, the findings show that performance is affected by marketing capabilities dirctly and indircly by growth of assets and profit as intermediary variable. Consequently, marketing capabilities are the bridge between the marketing resources particular market- based resource and coveted results measured by performance parameters (Agic i in 2016, p.2218). likewise, the influence of Strategic orientations on firm performance has been extensively studied in extant marketing scholars By demonstrating the role of various marketing strategies adopting on improving the performance of the company in subsequent periods (Jaakkol i in 2016, p.568), from a financial point of view, marketing actions influence share value through cash flow, such as the impact of advertising on firm value which is through creating some resources and competitive advantages like the brand. This effect may also be indirect by ensuring more stable and growing cash flows which in turn moves to market value or has a direct influence over the behavior of the investor who favors the shares of the highest-intensity advertising companies.(Singh,Faircloth, Nejadmalayeri 2005, p.434).

Likewise, other research depended on signal theory assumptions to clarify the nature of marketing effect on performance indicators, starting with the lack of investors' ability to distinguish good companies from bad in the market, that creates the need to be more certain before making a decision, this is what the company's signals are doing to bridge this gap among investors, marketing expenditure as a costly action includes a direct signal of the company's good financial position (Joshi, Hanssens 2008, p.7).

These marketing signals sent and managed by the company bear some explanations of the mechanisms of their impact on market value, first, they can push the stock price higher and reduce the company's cash needs (working capital) (Rao, Bharadwaj 2008, p.17), second, marketing actions particularly advertising spending can be translated into a positive indicator of future income and thus reflected in the firm capitalization "indirectly way" or through intangible assets "direct way" (Joshi, Hanssens 2010, p.21), in the same area of addition indirect effect, McAlister, Srinivasan, Kim (2007, p.38) discussed that marketing expenditure contributes to the formation of brand equity, which in turn leads to lower systematic risk, greater liquidity for the stock and to the broadening of shareholder ownership. In the light of polysemous signal concept, John, Kimb, Oh (2017, p.40) found that marketing activities could support the driver signal and mitigate the distress signal when the company goes towards external financing and leverage, that ultimately increases market value.

Finally, it is important to mention the role of marketing information in the context of the information asymmetry assumption, "*the company meets asymmetric information in both the product and capital markets*" (Chemmanur, Yan 2009, p.41), so the advertising as one of marketing activities in product market is apparent to capital market participants, also this information may be as a mechanism to transfer the true value of a firm's assets to potential investors in the market. It gives investors a better ability to evaluate the company's shares more accurately as a result of available information. (Konpanas 2013, p.138)

Measurement of variables

Counting on scientific research principles, literature on the relationship between marketing and company performance in capital market have used a range of measures to illustrate both variables, *table 3* contains some previous literature with measures used in both marketing and capital market fields. Researchers have adopted both qualitative and quantitative variables to express each side within the relationship

Table.2 Measurement of variables in some related literatures

study	Marketing measurements	Firm' performance measurements
(Fornell, Mithas, Morgeson, Krishnan 2006)	customer satisfaction	Stock returns
(Joshi, Hanssens 2010)	advertising spending	Stock returns
(Luo, Jong 2012)	advertising spending	Stock returns
(Srinivasan, Pauwels, Silva-Risso, Hanssens 2009)	Product innovation and marketing investments.	the explanatory power for stock returns
(McAlister, Srinivasan, Kim 2007)	advertising and R&D expenditures	systematic risk, derived from the capital asset pricing model (CAPM).
(Gruca, Rego, 2005)	customer satisfaction	the growth of future cash flows and reduces its variability
(Luo X. 2007)	consumers' negative voice	risk of stock returns.
(Yuan & Wei, 2012)	Advertising expenditures, investor recognition	implied cost of capital,
(Anderson, Fornell, Mazvancheryl 2004)	customer satisfaction	Tobin's Q
(Rao, Agarwal, Dahlhoff 2004)	firm's branding strategy	Tobin's Q
(Singh, Faircloth, Nejadmalayeri 2005)	Advertising Expenses	market-imposed weighted average cost of capital

Source: own study

The table shows that most of the studies used advertising expenditures (spending) to measure marketing impact on financial firm' performance, that can be due to the easiness of getting advertising spending numbers.

Proposed theoretical framework

Based on the objectives of the company as a whole and marketing in particular within the framework of market orientation, decisions are made and proactive actions depend on updated information received from the market. Moreover, the market orientation is essentially looking for a good long-term performance through the engagement between customer orientation, competitor orientation and interfunctional coordination (Tomaskova 2007,p.82), For listed companies, they can not ignore the capital market conditions as well as the behavior of shareholders and investors, which can add a new dimension to the company's plans, namely, capital market orientation or investor orientation, meaning that the company should take investors into account when adopting its marketing strategies. On the other hand, the question arises, whether the company can use separated marketing strategies to gain a good valuation of its shares.

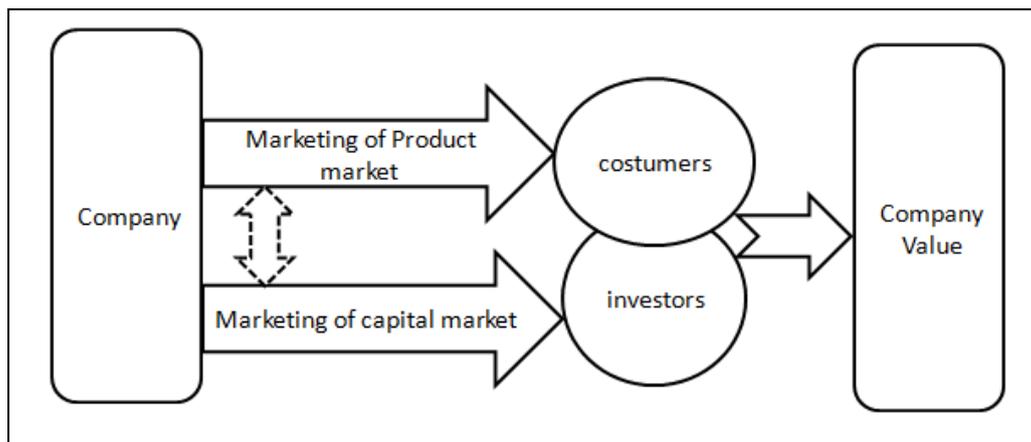


Figure .1 Proposed theoretical framework for a marketing role in capital market

Source: own study

The model shows that the marketing strategies are not limited to the product market but can be applied in the capital market, according to signal theory and information theory, firm disclosure is one of the most important information channels whether financial or non-financial types, financial public relations FPR as well can play an influential function in firm value enhancement. Generally, FPR activities target financial analysts, financial media, and investors (Tosun 2004, p.203). Noting the possibility of two roles for the same person as an investor in the capital market and a customer of the company's products in the product market.

Conclusion

The new role of marketing as a long-term investment in financial performance has become more indispensable to address investor behavior along with consumer behaviour, in its sense, marketing represents one of the most influential resources the company uses to create value by meeting the expectations of customers in product market and thus the objectives of investors in the capital market.

This paper highlights some impact channels of marketing on listed firm performance based on literature review, in sense of relationship analysis between marketing variables and firm performance variables in terms of the theories and mechanisms control this relationship, which can be fuelled the debate of integration of financial and marketing strategies, besides that the managers and decision makers can use this interdisciplinary approach to maximize the shareholders' wealth. further, marketing models could contribute to solving the puzzle of investor behavior in a market that financial rational models failed to do.

For future studies, the paper recommends developing the proposed model by studying more affected factors in both finance and marketing fields, especially intermediate stages between the marketing decisions of the company and the investment decisions of the investor to achieve the ultimate goal in the value of the company.

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DISCOVERING VARIABLES THAT AFFECT THE SURVIVAL OF YOUNG FIRMS: AN EMPIRICAL SURVEY OF ITALIAN COMPANIES

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Abstract: Young companies are very vulnerable to many causes of a general nature, which often occur because they are typical of their young age, and to specific causes which are different in each company because they are derived from the characteristics of each of them. This study aims to examine the relationship between the survival of companies in the first stage of life (assumed by the literature corresponding to the first five years of life) and some of the variables that influence the survival of businesses, such as: the operational and financial risk, total assets, the share capital, business sector and geographical area. To this purpose, the 5-year survival rates of Italian companies established in 2008, 2009, 2010 and 2011 were examined.

Keywords: risk, start-ups, survival rates of companies, young firms

Introduction: background, review of literature and research questions²³

Young companies are more vulnerable than mature ones (Strotmann 2007; Fackler, Schnabel, Wagner 2012). High fragility is a general characteristic of these companies in the first stage of life (Knaup, Piazza 2007). Low five-year survival rates are found in different nations and industries and have a relative invariance over time (Nicolò 2015, Nicolò, Ferrara 2015, Nicolò 2017, Nicolò, Nania 2017).

This high vulnerability derives from general (or universal) causes, typical of young companies, and from many other specific causes, always different from case to case.

Among the general causes, a crucial role is played by the lack of corporate reputation. Young companies do not have a history that can demonstrate their ability to fulfil their commitments to stakeholders (lenders, investors, suppliers, client companies, etc.) (Damodaran 2009). The bonds of trust with the stakeholders are very weak. At the first difficulties, these bond of trust break and companies cease to exist because of the lack of resources they need (Nicolò 2015; Nicolò, Ferrara 2015; Nicolò 2017). Young firms are often affected by the small businesses' typical weaknesses (Esteve-Pérez et al. 2004; Strotmann 2007) such as, for example: the lack of human resources with high professional skills and experience (Abowd, McKinney, Vilhuber 2009); the lack of financial resources (Carreira, Silva 2010) deriving from planning shortcomings (Davis, Olson 2008; Nicolò 2018). If a business plan is not prepared or is not properly assessed, it is very easy to underestimate the financial needs and to run out of cash before reaching the break-even; higher unit costs compared to competitors (Santarelli, Klomp, Thurik 2006); the high risk deriving from a low diversification (Geroski, Mata, Portugal 2010).

The specific causes of the high vulnerability of young companies are different from company to company because they depend, as well as on the peculiar characteristics of each of them, by many other variables, among which: the characteristics of their founder (or members of the co-founders' team) (Åstebro, Bernhardt 2003): gender (Brush 1992), education, competence and entrepreneurial experience (Rasmussen, Sørheim 2006), reputation; risk tolerance, fear of failure (Cacciotti et al. 2016; Kollmann et al. 2017), persistence (Gatewood et al., 1995); the activities carried out before and immediately after the start of the business (Carter, Gartner, Reynolds 1996; Van de Ven, Engleman 2004) and the sequence with which these activities were performed (Delmar, Shane 2002; Liao et al. 2005); the characteristics of the entrepreneurial ecosystem in which they operate (Moore 2006; Adner, Kapoor 2010); the strategic alliances (Chang 2004); the participation in business plan competitions and incubation / acceleration programs for start-ups (Dagnino 2015).

²³ Due to typographical problems it was not possible to insert the tables related to the results cited in the paper. The tables are available only on request: domenico.nicolo@unirc.it

This paper examines the five-year survival rates of the Italian companies belonging to the cohorts 2008-13, 2009-14, 2010-15 and 2011-16, established with a share capital \geq €20,000.00, with the aims to verify if and how much their survival has been influenced by: (RQ1) operational and financial risk rates, (RQ2) amount of share capital, (RQ3) amount of total assets, (RQ4) business sector, (RQ5) geographical area. Companies involved in a voluntary or forced liquidation process or in an insolvency procedure in the first five years of life have been considered ceased. These procedures often last a long time. Consistent with the purposes of this research, these companies have been considered closed because their cessation will certainly be produced, even if beyond the period observed. It has also been considered ceased companies with no sales revenues in the last two years of the first five. For the significance of this research and to check whether the high vulnerability of companies in the first stage of life depends on their small size rather than their youth, only Italian companies with a share capital greater than or equal to €20,000.00 have been included in the dataset.

Methodology and survival estimates

In this work, the Kaplan-Meier (1958) non-parametric survival function was used in a first step and the parametric estimate of the Hazard Rate was performed using the semi-parametric proportional hazards model of Cox (1972). Cox model allows a direct estimate based on the observed data without imposing conditions on the duration function. Survival functions related to cohorts (Figure 1) clearly indicate that the economic crisis that began in 2008 develops its effects over time. Even if result could be depending on the selection of companies, it is noted that the surviving companies within each cohort are constantly decreasing over time.

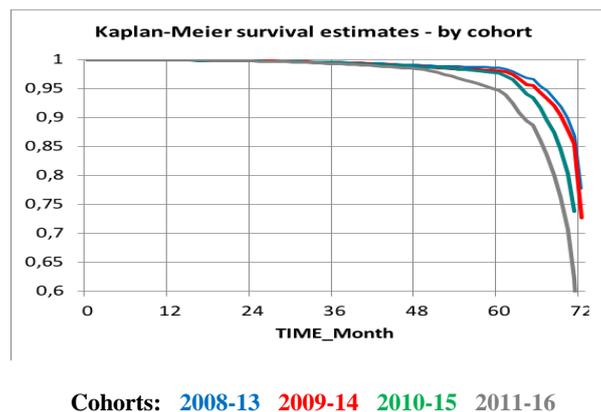


Figure 1. Kaplan-Meier survival estimates distinct by cohort

It would be of interest to observe the survival functions obtained through the use of the Kaplan-Meier procedure (1958) for the comparison of the single modalities of each variable and cohort considered in data analysis. However, since the number of graphs is too high, for the purpose of evaluating companies' survival differences for each variable and cohort considered, it was preferred to refer only to the test results Log-rank (Blank, Altman, 2004), Wilcoxon (Gehan, Thomas, 1969) and Tarone Ware (1977). But, observing Tab.3, it is clear that in all cohorts there are significant differences (p -value < 0.05) in the companies' probability of survival.

Table 1. Non-parametric test of the survival functions equality, distinct on covariates²⁴

Data analysis with Cox proportional hazards model

Since the tests described above are tests of significance that cannot provide a quantitative estimate of the difference between the different modalities of the variables considered, we must make some assumptions about the data in order to measure the effects of the different regressors on probability of survival. For this purpose, it is possible to estimate the Cox proportional risk model using maximum likelihood.

The results of the estimates obtained from the application of Cox proportional hazard model are shown in tables 2 and 3. To facilitate reading we report only, for the four cohorts, risk coefficients (HR) and associated p_values. From observation of the likelihood ratio tests (tables 2 and 3) we can deduce that the models are acceptable and therefore there is an impact of the covariates considered. It is also necessary to point out that only the significant results of each modality for each variable will be discussed.

Industries (control modality: Other services). The modalities "Industry in the strict sense" and "Commerce, hotels and restaurants" are always significant in all cohorts and express a tendency to failure always lower compared to "Other services". In particular, for companies belonging to "Industry in the strict sense" sector, the risk of leaving the production system is lower compared to "Other services", with percentage values ranging between -49.7% (2010-15) and 17.1% (2009-14). We observe similar behaviour for the category "Commerce, hotels and restaurants" whose risk of "bankruptcy" is lower than the "Other services" sector with percentages ranging between -33.8% (2010-15) and -15% (2011-16). "Construction" and "Agriculture" categories have only one significant value. In the cohort 2008-2013, the companies belonging to the Agriculture sector had a propensity to bankruptcy lower than "Other services" of -34.1%. The hazard rate is different for the companies in the "Construction" sector, which show a greater risk of exit, which results + 31.4% in the period 2010-15.

Geographical area (control modality: "South and island"). Only companies based in the "North-Western" of Italy have a significant Hazard Ratio in all cohorts. In this case, the risk of exit is always lower than Southern Italy companies with percentages ranging from -18.9% (2010-15) to -12.9% (2011-16). Also, for companies based in Central Italy, we have a decrease: -18.5% (2009-14) and -10.1% (2011-16).

Capital (control modality: "Low"). From analysis of significant modalities of the Capital variable in all the cohorts is clear that companies with a Stock Capital defined as High, Medium-High and Medium-Low, in all cases, have a greater risk of exit from the entrepreneurial ecosystem than companies with "Low" Stock capital. On all stand out + 49.7% of the "High" companies in the 2008-15 cohort and + 20.6% of the "Medium High" companies in the 2011-16 cohort.

Total Asset (control modality: "Low"). The parametrical estimate of the hazard rate of the significant modalities suggests that, in all cases and for all cohort, the companies with a Total Asset defined as "High", "Medium-High" and "Medium-Low" present a lower risk of failure than companies with "Low" Total Assets. The risk for companies with "High" Total Asset varies from -48.4% (2008-2011) to -28.2% (2011-16). In the cohort 2011-16, companies in the category "Medium-High" and "Medium-Low" have a risk rate of bankruptcy respectively -51.7% and -40.1% than the companies with "Low" Total Asset.

Operating Leverage (control modality: "Low"). In most cases examined, the modalities of the Operational Leverage variable are not significant, therefore, for this variable, it is not possible to evaluate over time the risk of exit from entrepreneurial ecosystem.

Financial Leverage (control modality: "Low"). From observation of significant hazard rates can be deduced that the risk of exit for companies that have Financial Leverage values defined as High, Medium-High and Medium-Low, in all cases and for all cohorts, is lower than for companies with "Low" Financial Leverage. In particular, for companies belonging to category: "High" -40,9% (2009-14), -38,3% (2010-15) and -12,5% (2011-16); "Medium-High" -20,9% (2008-13), -44,7% (2009-14) and -20,7% (2011-16); "Medium-Low" -32,7% (2008-13), -38,6% (2010-15) and -23,1% (2011-2016).

Table 2. Cox Proportional Hazard Model: estimates for cohorts 2008-13 and 2009-14²⁴

Table 3. Cox Proportional Hazard Model: estimates for cohorts 2010-15 and 2011-16²⁴

Conclusion

This study is the starting point for future research aimed at measuring simultaneously the effects of several influential variables on business survival. It will also be interesting to extend the analysis to other countries. The results obtained for each research question are presented below

RQ1: Operational and financial risk rate and young firms' survival

Operational risk and financial risk are variables which affect the survival of companies. In our previous research, this relationship has been studied taking into consideration the Italian companies constituted with a share capital $\geq \text{€ } 50.000,00$. The results show that a high operational and financial

risk at the date of the establishment of the companies does not affect their survival in the first 5 years of life. The percentages of companies with a high operational and financial risk rate, which survived and ceased, were almost equivalent in all the cohorts taken into consideration (Nicolò 2017). The relatively high capitalization (share capital \geq €50,000,00) mitigates the vulnerability of these companies in the first stage of life.

In this research, companies with a relatively high capitalization have been examined (share capital \geq €20,000.00). We used the operational leverage as the proxy of operational risk, as the ratio between the annual variation of operative income and the variation annual of revenues. We measured also the impact of initial level of financial risk on the chances of the young firms to survive five years after their birth. We used the financial leverage as a proxy of firm's financial risk.

The correlation between operational risk and companies' five-years survival rates did not provide significant statistical evidence. Therefore, we can argue that survival is not significantly affected by a high operational risk rate in companies with a relatively high share capital (in this research \geq €20,000.00).

This study has highlighted how survival rises even when financial risk increases. At first glance, this result seems to be contrary to the logic, but it is not actually. The highly indebted companies, on the one hand, are very risky, but on the other hand, they have good prospects for survival, since they have gained confidence from banks and suppliers.

RQ2-RQ3: Total assets and share capital and young firms' survival

The Italian National Institute of Statistics annually calculates the survival rates of companies born in Italy (see the following table 6). These survival rates are calculated on all companies born in Italy and, therefore, also considering the numerous one-man businesses, which are more than 60% of the total number of companies incorporated in Italy. These micro-enterprises are very fragile and have very low survival rates. For example, in 2016, 225,367 out of 363,488 companies born in Italy (62%) belong to the category of individual enterprises (one-man businesses). With reference to the cohorts of companies born between 2003 and 2010 (the most recent for which we have data on the 5-year survival rates), the survival rates calculated by the Italian National Statistics Institute have a low volatility within each sector and vary from a minimum of 37% (the construction sector, which more than others are serving the effects of the global crisis) to a maximum of almost 56%.

Table 4. Five-years survival rates of the Italian companies²⁴

In this study, survival rates are calculated only for companies with a share capital \geq € 20,000.00. As a consequence, the five-year survival rates obtained are much higher than those calculated by the Italian National Statistics Institute.

The companies examined in this study reveal much higher five-year survival rates, ranging from a maximum of 92% (2008-2013 cohort) to a minimum of 74% (2011-2016 cohort). Despite this significant drop in these rates over time caused by the global financial crisis, the survival rates five years stood at higher than the Italian National Statistics Institute calculated levels for all companies born (see table 5). As shown in the previous sections, larger companies are less vulnerable than small ones in the first stage of life, which is shown by our survey that highlights how five-year survival rates grow as the size of capital invested increases.

Table 5. The survival rates of Italian companies measured in this research²⁴

These high five-year survival rates are consistent as they very similar to those obtained in our previous research on the survival of Italian companies with a share capital \geq €50,000.00. In the three cohorts examined by companies born in Italy in 2009, in 2010 and 2011, the five-year survival rates were 93.45%, 92.74% and 82.78% respectively.

In order to obtain significant results, the survey has been limited to companies with a share capital \geq €20,000.00. One-man businesses that have been excluded from this survey consist of a multitude of very small economic entities. Crafts-workers, farmers, self-employed workers and other professional figures cannot be considered representative of companies. Moreover, the survival and cessation of these micro-enterprises depends above all on subjective factors and also from the personality of the entrepreneurs. These micro-enterprises, in other words, are not distinguishable from the person of the entrepreneur and therefore are not institutionalized. Their inclusion in this research would have given them a "weight" equal to the large corporations, with the consequent distortion of the results, which would thus have lost significance.

Companies' five-year survival rates decrease as their equity increases. This evidence, is not significant because it does not consider the percentage weight of equity on investments in total assets. Moreover, this result seems inconsistent with the just described positive correlation between survival rates and total assets of companies. This inconsistency is only apparent. By linking this evidence with the above-described positive correlation between high indebtedness and five-year business survival, it is possible to argue that, for companies constituted with equity of not less than €20,000.00, five-year survival expectations are growing at increase investments in total assets, even if they finance their investments mainly through debts. Therefore, the positive effects of leverage on the survival of newly established companies are evident.

RQ4-RQ5: Business sector and geographical area and young firms' survival

The companies belonging to the sectors "Industry in the strict sense" and "Commerce, hotels and restaurants" are more likely to survive than those operating in the "Other services" sector. "Construction" has much higher mortality rates than other sectors.

Italy is a nation with a strong North-South economic divide: the northern and central regions are economically advanced compared to the southern regions. Operating in a developed ecosystem, on the one hand, companies benefit from many positive externalities - in particular from the high average per capita income and the efficiency of services and infrastructures - but on the other hand, they can suffer effects of a fierce competition. In all the cohorts, young companies from the central and northern Italian regions are less vulnerable than companies in the South.

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CRISIS COMMUNICATION MANAGEMENT IN A PUBLIC SECTOR INSTITUTION

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Abstract. This article deals with the aspects of the specificity of crisis communication management, raising the following problem questions: 1) For what kind of crisis situations are preparations made in a public sector institution? 2) How is crisis communication managed in the institution in order to maintain reputation and defend the position in the event of the crisis situation? 3) What essential principles of crisis communication management that reduce harmful consequences of potential crises are foreseen in the institution?

The study disclosed that crisis communication management of the institution is reflected in traditional communication activities: in education and training events, development of internal communication, partnership with other entities. The identified weaknesses of crisis communication management in the public sector institution were as follows: absence of studies on crisis communication and communication, communication hindrances existing in the community of the public sector institution and the lack of application of specialized crisis communication development methods and measures.

Keywords: crisis communication, management, public sector institution, communication measures and methods, improvement possibilities

Introduction

Relevance of the topic. Crisis communication as part of the crisis management process involves strategic regulation of messages, time and communication channels, needed for communication with employees, customers, users and the media. Because usually a small number of people is involved in crisis management, the public tends to assess the position of the organization during a crisis according to the news announced in the media. In order to avoid disagreements, it is important to understand that public perception of the position or actions of the organisation depends on how the organization communicates with the audiences (Irimies 2013).

The authors are of the opinion that due to the strong impact on the enterprise the crisis should be treated more seriously than a simple incident. During the crisis, the organization must follow formal guidelines and procedures while communicating with both employees and target audiences. Particular emphasis is placed on the importance of the creation and development of an effective crisis management and communication plan, focusing on the need for modern leaders of organizations to be able to detect, foresee, manage and formally prepare for crises (Wekesa 2013).

According to L. A. Lando (2014), the crisis can happen at any time, in any place and affect any organizations: schools, hospitals, banks, governmental structures, airports, factories, private business entities, media agencies, and even individual public figures. No company or individual is protected from the crisis: only its size and influence may vary. Enterprises that follow crisis communication strategies and the plan are better prepared to appropriately deal with the crisis and have greater opportunities to return the organization to a normal, usual position in the short term (Lando 2014).

The research problem. T. W. Coombs (2007) emphasizes that the crisis threatens the reputation of the enterprise and factors that are closely related to it, such as investment, financial activity, customer attraction and loyalty, competitive advantage, positive reviews by analysts, experts or the public. Targeted crisis management requires a respective development of crisis communication, which involves maintenance of organized and grounded relationships with stakeholders and meeting their needs, observance of communication strategies, application of models and a systematic plan. Crisis communication directly affects the perception of stakeholders about reputation peculiarities of the enterprise and its values, which means that crisis communication is required for successful coping with the crisis (Coombs 2007).

The said context promotes to raise the following problem questions: For what kind of crisis situations preparations are made at the public sector institution? How is crisis communication managed in the public sector institution in order to maintain reputation and defend the position in the event of the crisis situation? What essential principles of crisis communication management that reduce harmful consequences of potential crises are foreseen in the public sector institution?

The research object is crisis communication management in the public sector institution.

The research aim is to investigate crisis communication management in the public sector institution.

Research objectives:

- 1) to find out what factors define the dependence of the image and reputation of the public sector institution on communication activities of the public sector institution in the cases of extreme events and situations;
- 2) to identify what communication measures and methods in the area of crisis communication are developed within the public sector institution and to foresee their improvement possibilities.

Research methods and tools:

- 1) The analysis and synthesis of scientific literature.
- 2) Qualitative research (the questionnaire survey).
- 3) Qualitative research (the semi-structured interview).
- 4) Content analysis of documents.

Background, Literature Review, Research Methodology

Literature review. Analyzing crisis communication as an influential phenomenon with regard to every enterprise, it is observed that the crisis, according to O. Ihlen et al. (2009), is not an unpredictable and sudden event: it develops slowly until it takes a certain real form and is defined as part of the enterprise's lifecycle; thus, it can be treated as a consequence of poor communication between the enterprise and its audiences. A similar approach is also emphasized by H. Park and H. B. Reber (2011): the society can perceive crises experienced by enterprises differently. Understanding of audiences depends on such factors as the rate of crisis development / emergence or the direct impact of the crisis on the individual. The relation of the enterprise with target audiences determines how quickly and effectively the damaged image of the enterprise will be restored and adverse effects will be avoided (Park, Reber 2011).

According to J. A. Zaremba (2010), it can be stated that the essential factors of crisis communication are identification of internal and external recipients, creation and dissemination of messages, and preparation of the response to feedback information during the crisis. The crisis communication process is described by preparation for crises, structuring of material, selection of information dissemination measures and assessment of success. Observance and targeted development of these actions prevent the damage caused by the crisis situation and allow to predict ways of responding to or avoiding similar situations in the future (Zaremba 2010).

Crisis communication as an integral part of controlling the crisis situation is also assessed by F.P. Walaski (2011), who believes that the main aims of crisis communication are preparation of messages, appealing to safety of target audiences of the enterprise and reduction of the negative impact of the crisis situation.

According to the aforementioned scientists, it should be stated that the key aim of crisis communication is to destroy the negative perception of the enterprise and to form a positive attitude of the society and all stakeholders to the crisis situation, using information. Crisis communication is also oriented to minimization of risk factors and maintenance of the image of the organization, directly influencing the opinion of target audiences (Xu, Li 2013).

Research methodology. The empirical part aims to identify the peculiarities of crisis communication management of the public sector institution. In the beginning, it was planned to conduct two studies on the topic of crisis communication (qualitative and quantitative), but having studied the activities of the public sector institution more extensively and having familiarised with the documents in the public sector institution, it was identified that the image and reputation in the public sector institution depend not only on communication management of crisis situations within the institution but also on preparation of the public sector institution and on application of actions in the cases of extreme events or situations.

For this reason, it was decided to apply three research methods: content analysis of institution documents, the employees' survey (quantitative research) and interviews of specialists working in the institution (qualitative research).

According to L. B. Berg (2001, pp. 4-5), combining methods that reflect the investigated problem from different perspectives, researchers can get a much more real and deeper picture of the analysed reality.

Document content analysis method. According to A. G. Bowen (2009, p. 27-28), document analysis is a systematic procedure for reviewing and evaluating printed or electronic documents. According to U. J. Ahmed (2010, p. 3-5), the analysis of documents discloses the content of qualitative data and reflects the significance of studied processes with regard to the given problem question. This method was used in this study in order to find out the links between external extreme situations, events and activities, image and reputation of the institution (chosen for analysis because the institution does not have a crisis prevention / communication plan) as well as to find out the directions of information sharing and communication in the institution during these situations.

It was identified that action plans of extreme situations, information exchange schemes and other documents in the institution are prepared by the Civil and Work Safety Division. It was found out that the institution had 17 annexes to the extreme situations management plan of the institution on its website, of which 4 documents were chosen for analysis. Based on the principles of the qualitative research, the content of documents was analysed, focusing on communication activities of the departments and employees of the institution in order to justify the strategic activities of the institution in cases of extreme events and situations. It was also foreseen that the analysis of the chosen scheme and order would disclose communication links and directions of the departments, employees of the institution and other entities in cases of extreme situations, applying identified aspects for the development of crisis communication within the institution.

The quantitative survey method. According to T. Mathiyazhagan and D. Nandan (2010, p. 34), the quantitative survey method is treated as a research of social sciences, focusing on people, their beliefs, opinions, attitude, motivation and behaviour.

There are about 300 employees in the administration of the institution (the number is constantly changing), but taking into account such factors as the impossibility of reaching all the employees of the institution (a part of employees work in small towns, villages of the district, are away, etc.), it was foreseen that 200 administrative staff would represent the general totality of the research participants. Considering that during the period of conducting the research, intensive restructuring was taking place in the institution due to changes of administrative authorities of the institution (the post-election period) and the fact that a part of the general totality will not be interested to participate in the research due to the high workload, the error rate of 0,09 was chosen. The estimated sample size ($1/(0,09^2+1/200)$) is 76 respondents. In total 140 printed questionnaires were distributed and 80 of them were returned. The survey of the administrative staff of the institution was conducted in February of 2017.

The qualitative semi-structured interview method. According to A. Bhattacharjee (2012), the interview is a personalized form of collecting material when the researcher speaks with the informant about the issues of the topic under discussion face-to-face. The use of this kind of method is referred to as a time-consuming and intensive process requiring the researcher's abilities to persuade and encourage collaboration (Bhattacharjee 2012). As to the semi-structured interview, L. B. Berg (2001) states that this method involves a combination of pre-prepared questions and special sub-themes, when questions are often given following the order and system, but the researcher, considering the course of the research and informants' responses, can tilt the topic in an unplanned direction.

To conduct the interviews of administrative staff of the public sector institution, two specialists from the Public Relations Department and Civil Safety Department of the municipality were selected as the informants. These informants were chosen due to their professional links with information dissemination, communication and extreme, crisis situations of the institution. This way it was foreseen that informants are tantamount persons to participate in the study. When both informants agreed to take part in the study, it was decided that the interview of two persons who reflect crisis communication activities in the institution best would be sufficient to ensure the representativeness of the sample. Interviews were conducted in February, 2017.

The interview questionnaire consists of 10 open-ended questions about crisis communication management in the public sector institution, which were divided into two sub-themes: 1) "The specificity of the crisis communication management in the public sector institution"; 2) "Crisis communication possibilities in the public sector institution". The first part of the interview

questionnaire included questions covering the activities of the public sector institution in the area of crisis communication, the measures and methods employed and the informants' professional contribution to the development of the communicative activity of the institution. The second part of the questionnaire consisted of questions aimed at identifying possibilities for activities to improve crisis communication based on informants' insights and proposals.

Thus, the aim of this qualitative research was to find out employees' opinion in the area of preparation and crisis communication management of the public sector institution, to investigate the activities developed in the public sector institution for improvement of crisis communication, to highlight main shortcomings and to foresee changes in the public sector institution in this area that would be of use.

Results

The analysis of the results of document content analysis. The content analysis of documents showed that, in order to ensure organized management of extreme situations, the institution actively develops internal relations based on the EU management plans, regulations and the general structure of the institution. The institution also develops external relationships regarding extreme situations, maintaining communication with the media and residents of the district. It was identified that communication activities developed by the employees' groups of the Operations Centre of Extreme Situations was a particularly significant factor seeking to ensure the positive image of the institution, as the reaction of stakeholders to the situation depends on accuracy of the information provided by the institution and promptness of dissemination. Since extreme situations occur in the external environment of the institution but elimination of their consequences depends on the actions of the institution, it should be stated that these cases can be attributed to external crisis situations of the institution that can affect its image and reputation.

The analysis of the results of the administrative staff survey. According to the respondents' answers, the majority of respondents believe that the main crisis prevention measures applied in the institution are permanent cooperation with the authorities (27%) and sharing experience with municipalities of other districts and cities (25%). Considering this, it should be stated that the development of crisis prevention activities of the institution is based on the laws of the country and the instructions of supreme structures (the Government, the Seimas, ministries). As it can be seen, the institution communicates with other institutions on crisis matters as well; thus, it can be stated that the development of crisis communication of the institution is based on examples and recommendations received from other institutions of the district and city.

The research disclosed that, from the standpoint of the administrative staff of the institution, the main activity of the public relations specialist that is focused on improvement of communication in the institution is meeting the employees' information needs (29%). A smaller proportion of respondents (18%) also indicated that the specialist helped employees to exchange information. Some respondents (6%) provided their answers too: in the opinion of some of them, the public relations specialist was as a press representative during crises, while others thought that this specialist did not contribute to communication improvement at all. As it can be seen, the respondents' opinions on this matter differed.

Based on the survey results, it should be stated that the institution is ready for the crisis situation with regard to human and technological resources but lacks a specific definition of crisis communication, prevention and management activities in job descriptions of employees of the institution. It was identified that the public relations specialist helped employees to share information, but the institution still lacked tools to facilitate cooperation between different departments of the institution in cases of problem situations. It was found out that although the institution organized trainings, practical sessions and workshops for administrative staff in order to ensure crisis prevention and effective crisis communication, in the respondents' opinion, there are too little such type of activities. Thus, it can be concluded that the development of crisis communication organization and management of the institution is grounded on traditional communication activities: events, development of internal communication, cooperation with other institutions and authorities, but such specialized crisis communication development methods and measures as preparation of the crisis communication plan, practical simulations of crises or conducting of studies on problematic areas of the institution are insufficiently applied.

The analysis of the interviews of the administration staff of the institution. To conduct the interviews with the administrative staff of the public sector institution, two informants were chosen, who, further systematizing information, were marked with codes I1 (the first informant) and I2 (the second informant). Based on the material collected during the interview, categories, subcategories and the informants' confirmatory statements were distinguished in the tables, on the basis of which the information was further analyzed. Table 1 provides respondents' information about crisis communication behaviour, organization and management activities of the institution.

Table 1. Crisis Communication Behaviour, Organization and Management Activities, Provided for in the Strategic Plan and other Documents of the Public Sector Institution

Category	Subcategory	Confirmatory statement
Crisis communication behaviour, organization and management activities	Documents	"Crisis management documents are, perhaps, separately, foreseen not in the strategic plan <...> there is, say, a fire fighting plan of the municipality administration <...> there are other documents <...> for cases of similar situations or extreme situations." [I1]
		"<...> While working, I am guided by my job description as well as the regulations of the department <...> namely by those documents." [I2]
	Measures and ways	"<...> which provide for various evacuations, the evacuation of documentation <...>." [I1]
		"<...> this is both internal and external communication and namely communication in the event of the possible crisis situation <...>." [I2]
	Specialists' duties and responsibilities	"To prepare people for various extreme situations and to teach them to react to them and to foresee prevention, make preventive plans <...> I receive information <...> from the police or from the fire service, I inform the director and take measures to solve these problems <...>." [I1]
		"I would be responsible for communication in general <...> I should provide information to all my colleagues <...> to provide information to all residents of Siauliai district." [I2]

Source: Own study

As it can be seen from Table 1, according to the informants, items related to crisis communication behaviour, organization and management activities are provided for not in the strategic plan of the institution but in other documents, such as job descriptions or specialized plans of the institution. The main measures for the development of crisis communication mentioned by the informants are the development of internal and external communication. As to the specialists' duties and responsibilities during the institutional crisis, the first informant pointed out activities only in cases of extreme situations in the district (human preparedness, prevention, information), the second informant said that the main duty was simply provision of information to the administrative staff and the public – this is one of the public relations specialist's activities described in crises communication. Based on these aspects, it can be stated that the institution does not have a coherent plan for the development of crisis communication, but the functions and activities are divided and presented in the specialized plans of the institution and in employees' job descriptions. The information function in the cases of both informants is provided as one of the main activities developed by specialists in the events of crisis situations.

The respondents were asked to assess whether, in their view, the institution has sufficient human resources to deal with crisis situations in an expeditious and appropriate manner (Table 2).

Table 2. Human Resources of the Institution for Dealing with Crisis Situations

Category	Subcategory	Confirmatory statement
Human resources	Assessment of sufficiency of human resources	"There are enough resources to prepare for extreme situations <...>." [I1]
		"As if there were enough of these people." [I2]
	Responsible persons of the institution	"A commission of extreme situations, an operations centre of extreme situations have been formed <...>." [I1]
		"It is enough to have a person who works – a civil safety specialist." [I2]

Source: Own study

It was found out that both specialists assessed preparedness of the institution for the crisis situation with regard to human resources as sufficient. As the extent of the extreme situation is greater than of the crisis situation, based on the first informant's response, it can be stated that the institution has

sufficient human resources. The informants also named, in their opinion, persons responsible for management of crisis situations within the institution. As it can be seen from Table 2, the first informant named the commission of extreme situations, the operations centre of extreme situations (civil safety activities) as responsible structures. According to the second informant, the person responsible for such activity is the civil safety specialist of the public sector institution. Comparing the responses of both informants, it can be concluded that the crisis communication activities of the institution are moving towards dealing with the crisis situations of a natural type, physical type (of elemental disasters, disasters, natural disasters, fires); i.e., in the direction of assurance of civil safety outside the institution and in the very institution.

The study also sought to find out what activities oriented to education and training of the staff of the institution in the area of communication, crisis communication were organized in the public sector institution (Table 3).

Table 3. Education and Training of the Staff of the Institution in the Area of Crisis Communication

Category	Subcategory	Confirmatory statement
Employees' education and training	Organised activity	"Meetings about emergency situations <...> about civil safety, workshops are organized <...> booklets are published." [I1]
		"Training about emergency situations <...> training within the institution too." [I2]
	Periodicity and planning of activities	"<...> all these processes are carried out in a planned manner <...> in accordance with the director's plan approved for the year." [I1]
		"<...> every three years we are obliged to participate <...>." [I2]
	Employees' involvement in the activity	"<...> since it is regulated by laws, the employees are obliged to participate <...> not with great enthusiasm, of course." [I1]
		"Maybe we should rather express some request, wish and then training would be organised." [I2]

Source: Own study

As to education and training of the employees of the institution in the area of crisis communication, according to the informants, the main activities are meetings, trainings and workshops of employees on civil safety taking place outside the institution and other trainings organized within the public sector institution. It was found out that these processes were implemented according to the plan approved by the director, according to which employees take part in mandatory trainings every 3 years. From the informants' standpoint, the employees of the public sector institution can express their wishes about certain trainings; therefore, it can be stated that the institution creates opportunities for the professionals, if necessary, to take initiatives on the organization of educational activities on crisis communication issues. It was noticed that the main activity aimed at employees' education is oriented to preparedness of the administration of the public sector institution for extreme situations. It can be stated that the preparedness of the personnel of the public sector institution for internal or external crisis situations of the institution is reflected via civil safety activities, the main directions of which are dealing with natural, nature related or man-made hazardous situations.

Analyzing the peculiarities of crisis communication of the institution, it was sought to identify the entities with which the relationships of the public sector institution are the closest, how this communication takes place and the main advantages of information exchange on the issues of crises and extreme situations (Table 4).

Table 4. Cooperation of the Public Sector Institution with Other Institutions on Crisis Situations Management Issues

Category	Subcategory	Confirmatory statement
Cooperation of the municipality with other institutions	Institutions	"Usually administrations of Šiauliai County municipalities communicate <...>." [I2]
	Methods and measures of information exchange	"There are cooperation agreements and mutual assistance plans <...>." [I1]
		"Usually communication is between specialists of the same area <...>." [I2]
	Benefit provided by partnership relations	"The benefit is <...> that in the event of a major extreme situation, we would not be left alone <...> it is easier to solve problems jointly <...>." [I1]
		"I could not answer very concretely <...>." [I2]

Source: Own study

According to the informants, experience exchange most often takes place among specialists of the same field. It was found out that the public sector institution communicated with other institutions in accordance with concluded cooperation agreements and mutual assistance plans, which allows us to conclude that in the event of the crisis situation outside or inside the institution, the public sector institution would receive assistance from cooperating entities, which has been named as an essential advantage of developing such relationships. It can be concluded that, in the events of crisis situations, if the institution is little prepared or lacks technical and human resources, the institution could address other institutions for assistance and use their experience, developing its activities according to the actions foreseen by the partners.

The study sought to find out what informants would propose to change in the institution with regard to preparation for crisis situations, based on their professional experience and personal opinion (Table 5).

Table 5. Specialists' Proposals for Improvement of Communication and Preparation for Crisis Situations in the Institution

Category	Subcategory	Confirmatory statement
Specialists' proposals	Specialists' recommendations	"An employees' trade union should be established <...>." [I1]
		"I think some plans are unnecessary for sure <...> just to communicate humanly <...>." [I2]
	Benefit of specialists' proposals	"Would greatly help to avoid various crisis matters <...> could help legally." [I1]
		"Actually we need communication, human, simple understanding." [I2]

Source: Own study

As it can be seen from Table 5, the informants' proposals were partially similar. According to the first informant, crisis prevention in the institution would be particularly supported if the employees' trade union were established, which would operate legally and provide legal assistance. This enables to conclude that, in the informant's opinion, the public sector institution lacks a structure that would protect and ensure employees' rights. Based on this proposal, it should be stated that such changes would help the institution and would operate as a measure of preventing internal conflict situations, employees' strikes and similar type crisis situations. The second informant provided a proposal that the institution needed human communication. Based on the statements of both informants, it can be assumed that there are communication problems between employees or between employees and management in the institution. This leads to the conclusion that the institution lacks preventive activities oriented to communication crises as well as assurance of measures for communication improvement (among the members of the public sector community).

Discussion

Considering the research results of the content analysis of the documents, the quantitative survey of the administrative staff and the qualitative interviews with the specialists of the institution, it should be stated that this public sector institution needs organizational and management methods and measures applied for prevention of extreme situations in the external environment of the institution as well as adjusted for preparation for internal crisis situations of the institution, supplementing employees' job descriptions and preparing an analogous information exchange scheme during the crisis. It is purposeful for the institution to conduct studies on internal communication and crisis communication (employees' surveys and monitoring of activities), this way identifying the nature of existing problems, their causes and ways of solutions as well as ensuring smooth communication and cooperation between the members of the community of the institution in daily activities and in cases of crises. It is purposeful for the institution to conduct practical sessions, workshops and trainings for the employees of the institution, aimed not only at improvement of communication skills but also at improvement of communication preparedness for crisis situations: organizing more practical meetings for crises simulations that would be included in the planning documents of the institution and carried out periodically (it should be suggested quarterly).

Conclusion

The measures for crisis prevention and communication developed in the public sector institution are mainly aimed at assurance of preparation for crises taking place in external environments of the institution due to dependence of eliminating harmful consequences of such situations on the actions of the public sector institution.

Crisis communication management of the public sector institution is based on traditional communication, education and partnership development activities: workshops, trainings, seminars, internal communication measures, cooperation with other institutions and authorities, distinguishing the lack of application of specialized crisis communication development methods and measures.

Crisis prevention and communication measures developed in the institution are mainly aimed at assurance of preparation for crisis situations in the external environment of the institution (extreme situations in the district) with regard to dependence of elimination of harmful consequences of such situations on the actions of the institution. Organization and management of crisis communication of the institution is grounded on traditional activities of communication, education and partnership development: practical sessions, trainings, workshops, internal communication measures, cooperation with other institutions and authorities, distinguishing the lack of application of specialized crisis communication development methods and measures. Two essential weaknesses in the area of crisis communication management in the public sector institution were identified: absence of crisis communication / communication studies and communication hindrances existing among the members of the public sector institution community.

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ENHANCING ECO-INNOVATION DEVELOPMENT AND IMPLEMENTATION IN THE BUSINESS SECTOR: A COMPARISON OF SELECTED PROGRAMS REALIZED IN POLAND AND AUSTRIA

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Abstract: Recent public policy initiatives towards companies and their sustainability often include support and practical implementation for eco-innovation. The objective of the paper is to compare the approaches of eco-innovation support in two EU countries-Austria and Poland. A comparison is made between eco-innovation performance factors and policy measures. Austria is a well-established, fast-growing and innovative environmental economy. In comparison, Poland has no explicit eco-innovation policy or dedicated strategy. Furthermore, Austria uses many of its own public and private resources to support eco-innovation in the business sector. In Poland, EU funds provide the primary support for the development of eco-innovation. The approaches to eco-innovation policy are described and compared.

Keywords: eco-innovation, eco-innovation policy measures, eco-innovation in Austria, eco-innovation in Poland

Introduction

Eco-innovation has recently become one of the key instruments for developing business sustainability and has also become an area where public support has been allocated. Eco-innovation is at the very heart of sustainability policies and offers the potential to mitigate business pressure on the environment without decreasing its impact on social well-being. The scope of eco-innovation includes technological advances as well as organizational changes. In contrast with other areas of innovation, eco-innovation offers some benefits to the public. The central feature of eco-innovation is the attainment of economic and social advances with minimal environmental damage. To achieve this objective, public support for the development and diffusion of eco-innovations is understandable and perhaps necessary.

In recent years, there has been a high level of public engagement towards eco-innovation, and various approaches have been applied to its implementation. Financial support for the development of eco-innovation has been directed towards companies, the R&D sector, and the public sector. This support has been offered within EU centralized programmes (e.g., the Eco-Innovation Action Plan) and constitutes a significant part of FP7 and Horizon 2020 research programmes.

The focus of this paper is to compare the approaches of eco-innovation support in two EU countries—Austria and Poland. A comparison of the two different eco-innovation support models provides some informative benefits. According to the recent Eco-innovation Observatory report (European Commission 2012), Austria is slightly above the EU average on the eco-innovation index, while Poland has the second lowest eco-innovation index in the EU.

The comparison is based on the review of policy measures, which are structured in accordance to Eco-innovation Observatory guidance. The paper does not intend to contribute to the theory of eco-innovation or to test the efficiency of eco-innovations policies. Instead, it should provide the overview of policy instruments used in both analysed countries and to identify potential factors influencing it and its outcomes.

The methodology used for comparison of eco-innovation support in Austria and in Poland are based on the analysis of policy instruments. The analysis includes public documents oriented on innovation development and its financing. Also some references and Eco-innovation Observatory reports are used to identify the key factors shaping eco-innovation support in these two countries.

Background of the research - key characteristics of eco-innovation

The definition of eco-innovation presented here comes from the most recent EU initiative called *Innovation for a Sustainable Future - The Eco-innovation Action Plan*. This definition states: “eco-innovation is any form of innovation resulting in or aiming at significant and demonstrable progress towards the goal of sustainable development, through reducing impacts on the environment,

enhancing resilience to environmental pressures, or achieving a more efficient and responsible use of natural resources” (COM 2011).

The role of eco-innovation in developing a more sustainable economy should not be underestimated. Eco-innovation is part of the ecological effect, with the build-up of competitive advantage and efficiency gain (Strojny 2010). Through the synergy effect, eco-innovation could bring out the unexpected effects of pursuing sustainability strategies (Hitchcock, Willard 2006). Eco-innovation lies at the very heart of eco-efficiency-based sustainability strategies, and its role is to deliver the best possible solutions to optimize of the functioning of companies (Orsato 2009). The range of eco-innovation implementation is multidimensional from the perspective of a company and should spread out to areas, such as marketing, technology, finance, organization, culture, and environmental issues (Mesjasz-Lech 2009). Finally, eco-innovation is considered to be the milestone of any sustainability strategy if it is used in a systemic integrated approach and is focused on constant improvement of company operations, products, and services (Werbach 2009).

As some authors complain, including Miedzinski and Kalinowska, that there is no consistent system for defining, classifying or measuring eco-innovation globally or in the EU (Miedziński 2010; Kalinowska 2010). Miedzinski indicates that eco-innovation is often limited to certain sectors or branches of the economy, while its core and potential effects could be achieved in any type of economic activity (Miedziński 2010).

Eco-innovation profiles of Austria and Poland

Austria is a well-established, fast-growing innovative environmental economy and has developed its environmental performance in areas, such as air and water quality, waste management, organic farming and nature protection. On the other hand, it faces some policy challenges regarding climate policy and the unavoidable miss of its Kyoto target. The Austrian business sector has been able to establish a remarkable lead in green technologies, with a focus on clean energy technologies (e.g., the use of biomass and small-scale hydropower, heat pumps and thermal solar energy), the technology of passive homebuilding and ecological construction in general (Schwarz-Wölzl 2014). Clean energy technologies contributed almost 80% to the overall turnover in environmental technology sectors in 2011, making them a major driving force for eco-innovation development in Austria. Important factors for eco-innovation development include high environmental standards, well-functioning environmental protection laws, and various environmentally related financial incentives offered by the state (Eco-innovation Observatory 2013a). State aid to the environmental sector in Austria is worth noting and constitutes an important differentiating factor for the country, especially in comparison to Poland.

In 2011, 11.5% of Austrian production and service enterprises were categorized as being eco-innovative; their turnover was equivalent to 5.6% of total turnover in the production and service sectors (of enterprises with more than 9 employees). While this sector’s turnover increased by 3.0% from 2008 to 2011, the eco-innovative shares of the sector increased by 16.6%, to 18.6%, during the same period. This is also reflected in employment growth. While the sector’s employment grew by 0.4% from 2008 to 2011, the eco-innovative share of the sector’s employment grew by 4.9%, to 7.4%, during the same period (Bliem i in, 2014).

Poland has no explicit eco-innovation policy or dedicated strategy. However, eco-innovation is mentioned in several major national and regional strategy documents. The Polish National Development Strategy 2030 mentions eco-innovation as a possible area of emerging specialization for the country, placing it in the context of energy efficiency and renewable and clean energy generation (MAiC 2013). ‘Dynamic Poland’, the Strategy for Innovative and Efficient Economy, includes eco-innovation in several of its objectives, including increasing resource efficiency in production and services and adjusting the regulatory and financial environment to the needs of an innovative and efficient economy (Ministerstwo Gospodarki 2013).

Eco-innovation is among the horizontal objectives of the Enterprise Development Programme, including smart specialization areas selected as a priority on the national level for the 2014-2020 Operational Programmes (Ministry of Infrastructure and Development 2014). These areas include topics directly or indirectly relevant for eco-innovation, such as waste reduction, reuse and recycling, sustainable transport, energy efficiency construction, water efficiency technologies and material

substitution. Interestingly, there is no explicit focus on material and energy efficiency in production processes (Eco-innovation Observatory 2013b). The extent to which the criteria of project selection will include both environmental and economic benefits, one of the basic rationales of supporting eco-innovation, is still unclear at the time of preparing this paper.

Poland and its regions are implementing EU regional policies through both regional and national programmes. Actions undertaken and regulations also cover direct support of innovation development and implementation in the business sector. These are regional or national-level financed programs, but most of the financial aid comes from EU-funded programmes. EU programmes supporting eco-innovation include two national level programs, i.e., Operational Program Innovative Economy (OPIE) and Operational Program Infrastructure and Environment (OPI&E), as well as 16 regional operational programmes (ROP) implemented individually in all Polish regions.

Main problems in undertaking eco-innovation by companies are related to lack of funds, uncertainty concerning the market response or return on investments, and technical lock-ins (Ociepa-Kubicka, Pachura, 2017).

The analysis in this section is based on the EU 28 Eco-innovation scoreboard index, calculated by Eco-innovation Observatory, for the year 2013. The Eco-innovation index demonstrates the eco-innovation performance of a country compared with the EU average and with the EU top performers. It is based on 16 indicators, which are aggregated into five components: eco-innovation inputs, eco-innovation activities, eco-innovation outputs, environmental outcomes, and socioeconomic outcomes.

Błąd! Nie można odnaleźć źródła odwołania. shows the comparison of Eco-innovation Scoreboard indexes for Austria, Poland and the EU. Ranked as 9th in Europe, Austria's overall score is slightly above the EU average, while Poland is far below it. Some specific differences can be observed in the five components of the scoreboard index. Austria has one of the highest scores for the eco-innovation output component in Europe.

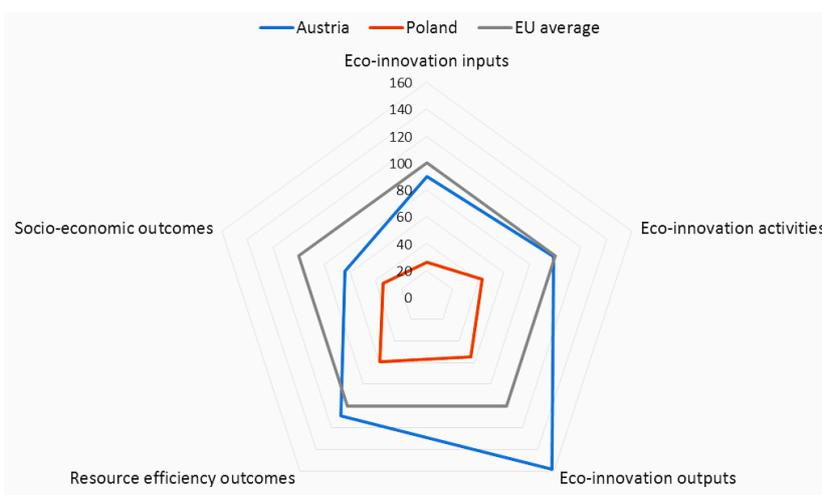


Figure 1. Eco-innovation Scoreboard Index 2013 – comparison of Austrian and Polish indexes to the EU average

Source: (European Commission 2012)

This is mainly due to the outstanding number of eco-innovation-related patents and good coverage of eco-innovation issues in the media and in scientific publications. The component that lowers Austria's overall score is socio-economic outcome. Despite successful scores of eco-industry exports, the score in this component is not satisfactory due to very low employment and turnover indicators. All of the remaining components are close to the EU average and show complex engagement in developing and implementing eco-innovation from local and national government, the business sector and the public.

Poland has no specific approach towards eco-innovation. There are many initiatives that support eco-innovation, but usually as a side effect and not the main objective. Scores in all five components are well below the EU average, and there is currently no sign of crucial improvements in this area. The important factor that could significantly contribute to an improvement is the EU regional policy and its financial instruments implemented in all Polish regions.

Policy measures addressing the eco-innovation issue

Table 1 shows detailed lists of selected policy measures used in Austria and in Poland to improve their overall eco-innovation performance. The important difference between the two countries is the source of eco-innovation support. In Poland, as already mentioned, EU-funded programmes lead eco-innovation support. In contrast, most of the instruments and programmes in Austria are funded by public, nationwide or regional authorities. This is a crucial factor in the different situations of the two countries. Austria, as a richer and more developed country, invests financial resources in areas of competitive advantage, which are often related to its eco-innovative potential. Poland, on the other hand, is trying to make up for economic, social and environmental drawbacks that grew through the decades of communist governance. Poland's resources are spent on more basic needs, and the awareness of ecological issues is not as developed. However, the criteria for EU-funded support includes sustainability and eco-innovation.

This difference is clearly visible in the public guarantee funds row in Table 1. In Austria there are no public guarantee funds dedicated to eco-innovation, while in Poland there are at least 10 initiatives that could be classified here. Half of these initiatives are funded by the EU or European Economic Area countries. The most significant support comes from EU regional policy financial instruments, including the European Regional Development Fund, the European Social Fund the Cohesion Fund and their implementing programmes during 2007-2013.

In the period of 2007-2013, Austria received €1.46 billion, compared with €67.3 billion aid to Poland (EC D-G Regional Policy 2008). It is worth noting that financial support for Poland includes only a few measures dedicated directly or indirectly to eco-innovation. These are measures dedicated to environmental technology sectors, support for the R&D sector, and for implementation of innovation in companies. The most important programmes with regard to eco-innovation are:

- Operational Program Innovative Economy – its support to eco-innovation is mostly due to the inclusion of R&D activities support, building capacity of business environment and direct support to companies;
- Operational Program Infrastructure and Environment – part of the Program is dedicated to different environmental sectors, and it includes instruments of its direct support;
- 16 Regional Operational Programs – their intervention differs regionally, but direct support for companies is common for all of them.

The orientation on eco-innovation occurs only if (1) the environmental sector or technology is addressed by the measure, or (2) the unit applying for the funds includes eco-innovation in its project. The latter condition results not only from the attitude of applicants but also from including environmental issues as a horizontal criteria of project assessment. Taking a closer look at measures listed in Table 1 on the Polish side, we can observe that most of the instruments and measures included are very often only indirectly dedicated to eco-innovation.

In Austria, the situation is much different. In Table 1, networks and partnerships measures are also presented. While the Polish side is filled in with a few measures that address eco-innovation indirectly, the Austrian measures to stimulate networking on eco-innovation are highly developed and focused directly on eco-innovation. Consider the example of Green Tech Valley - ECO World Styria cluster, an initiative that uses regional funds to support companies. Eco-innovation is treated as a breakthrough instrument to achieve economic prosperity, environmental safety and social development. Green Tech Valley is fostering the growth of competencies in environmental sectors in the Styria region (Schwarz-Wölzl 2014).

Table 1. Comparison of policy measures addressing eco-innovation in Austria and Poland

Type of policy measures	Austria	Poland
Venture capital funds	Austria Wirtschaftsservice GmbH Mountain Cleantech Fund II	12 seed funds 8 networks of business angels
Public guarantee funds		Green Investments Scheme RES Programme Operational Programme Infrastructure and Environment Norwegian and EEA Grants BGK – Energy Efficiency Programme Rural Development Plan 16 Regional Operational Programs Polish Sustainable Energy Financing Facility LIFE + Component II, Environmental Policy and Governance
R&D funding	Programme on Technologies for Sustainable Development Climate and Energy Fund (KLIEN)	Green Investments Scheme National Fund for Environmental Protection Operational Program Innovative Economy – Priority 1
Collaborative grants	Austrian Science Fund – FWF Austrian Research Promotion Agency - FFG	GEKON programme (the Generator of Ecological Concepts)
R&D infrastructure	Resource Efficiency Action Plan (REAP)	Operational Program Innovative Economy – Priority 4
Tax incentives for R&D and start-ups	research tax allowance	
Competence centres, clusters, science and technology parks	Green Tech Valley Cluster ECO World Styria Environmental Technology Cluster (Upper Austria) Cluster Platform Austria Ecoplus - business agency of Lower Austria	At least 15 clusters involved in eco-innovations, in particular, in renewable energy
Technology platforms and innovation networks	COMET - Competence Centres for Excellent Technologies	8 technology platforms addressing eco-innovation issue
Foresight and common vision building	ECO Future Radar	National Foresight Programme “Poland 2020”
Market intelligence and other forms of information sharing	Information, Coaching and Events the AWO-Programme	
Regulations, targets, cap & trade schemes	Austrian Climate Strategy ACM (Austrian Carbon Management)	
Performance standards, labelling, certification	Environmental labelling EMS	Regulation of the Minister of Economy of 20 May 2005 on the requirements for technical documentation, labels and characteristics and label formats for equipment EMS ; EU-ETV Pilot Programme
“Green“ public procurement of goods and services	National Action Plan (NAP) for Green Public Procurement	Green public procurement program Act on Construction Law
R&D procurement	EU-Toolkits for different product groups	
Advisory support for technology adopters	Enterprise Europe Network different support strategies for Austrian technology adopters by AWS	Operational Program Innovative Economy – Priority 1
Financial or fiscal support for technology adopters	different support strategies for Austrian technology adopters by AWS	
Tax incentives for consumers	Eco-tax law that covers range of products	
Demand subsidies	Knowledge Intensive Services in the Planning, Installation, Maintenance and Scrap services for RES production systems (KIS-PIMS) LEV innovation voucher	Thermo-modernization bonus of National Fund for Environmental Protection and Water Management
Awareness raising and information provision	many different activities that aim to raise awareness provided by local community governments, environmental agencies, etc.	several different activities that aim to raise awareness provided by local community governments, environmental agencies, etc.

Source: based on (Eco-innovation Observatory 2013a; Eco-innovation Observatory 2013b; European Commission 2012)

Conclusion

The issue of eco-innovation is addressed differently in Austria and Poland, and policy measures towards it reflect this difference. Austria has a mature eco-innovation policy and has successfully implemented it in the business sector. Moreover, Austria seems to own its eco-innovation policy and has delegated it to lower level authorities and market mechanisms. The biggest challenge for Austria concerning eco-innovation is market saturation. Prospective eco-innovative sectors are mobility and resource efficiency, especially where resource reduction for products and processes is concerned.

On the other hand, Poland's policy towards eco-innovation is in its infancy and builds more on small diversified initiatives than on a complex approach to the issue. The eco-innovation issue is highly influenced by EU policy and its financial instruments and is driven by their implementation programmes. As shown above, even non-complex and purposeful measures are producing effects, and Polish companies are getting more involved in eco-innovation development and implementation.

Enhancing eco-innovation development in Poland could be based on Austrian experiences but there are some important conditions that should be met. First of all, Poland needs to clarify its objectives and expectations towards eco-innovation and should own its eco-innovation policy instead of just adopting EU goals in this field. Secondly, the achievement of the above condition partly depends on the engagement of private sector and its capital. Providing necessary workload and financing would enable adjustment of eco-innovation policy goals to the true needs of national market.

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MANAGEMENT OF BUSINESS MODEL OF SMEs IN IRAN

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Abstract: This is an exploratory descriptive study to find the critical areas that should be managed in the management of the SMEs' business model in Iran. To reach this objective of the study, a wide range of literature of business models and SMEs was studied, especially the research projects that are conducted in Iran. The findings revealed that in order to manage the business model of a SME in Iran, the organizational decision makers should manage sixteen critical points which are process integration, organizational systems, strategies, target market, information technology innovations, organizational culture, enterprise size, product, economics control, sourcing, supply chain, infrastructure, human resources, organizational structure, innovation and knowledge management. The findings provide valuable guidelines to the managers of SMEs by assisting them to effectively innovate their business model.

Keywords: business model, business model innovation, SMEs

Introduction

SMEs have a considerable contribution to each economy and their number is substantially more than the giant enterprises (Del Brío 2003, p. 941), subsequently, competition among SMEs are rigidly harder (Singh, Garg, Deshmukh 2008, p. 536). Having a competitive advantage is what all the enterprises are look for to excel the competition. Designing an excellence business model can provide them such advantage.

Therefore, in this study it has tried to answer the main questions CEOs in SMEs are seeking to find the answers. The questions such as what are the main effectors affect the business model selection? What are the main factors affect the business model performance? What are the determinant factors affect the competitiveness ability of the SMEs? Since SMEs have had a great share in entrepreneurship in Iran and they have formed a large number of job market in Iran, this research is directed to answer the mentioned questions in Iran. It is worth mentioning that this descriptive article reviews the literature specially the research is done on SMEs in Iran.

Therefore, the main objective of this study is to provide a conceptual model assisting organizational decision makers of SMEs in Iran to manage their business models. In other words, this study wants to, based on the literature, proposes critical areas to be manage in order to manage their business so as for gaining a competitive advantage and facilitating them in business model innovation processes.

Methodology

This is a descriptive study utilizing the literature review to address the main objective of the research. As it is mentioned above, the main objective of this study is to provide a conceptual model including factors affect the SMEs' business models in Iran. To do so, a wide literature of research done in the areas of SMEs, Business Model, management of SMEs is studied. It is worth mentioning that only research done among the SMEs in Iran were considered for analysis. Scopus, Web of Science, Civilica, and SID (Civilica and SID are the main databases for Persian language articles) were the databases are used in this study. The result of the initial search among the mentioned databases were 217. After studying deeply, the article so as to find the related articles which have provided effective factors on management of SMEs' business model. Ultimately, four articles were found suitable for further analysis that are used in this study to formulate the conceptual model.

Research Background

What is Business model?

Business model is a concept has targeted the logic of a business (Mosleh, Nosratabadi 2015, p. 108). This concept introduces the areas simply explain how a business works and how it makes money (Mosleh, Nosratabadi, Bahrami 2015, p. 175), how it could be sustainable (Seroka-Stolka i in.

2017, p. 122). Although it is not a very new concept, but the use of this concept remarkably increased in the research since 1990s (Lambert, Davidson 2012, p. 675). Despite of lack of a consensus on business model definition, all the provided definitions (all references defined business model) have tried to explain the value creation and value delivery processes and the revenue flows.

To analyze a business model, Osterwalder, Pigneur, and Tucci (2005) purpose a four-dimensional model in which product (value proposition), customer interface (target customer, distribution channel, and relationship), infrastructure management (value configuration, core competency, and partner network), and financial aspects (revenue model, cost structure) comprise the 4 pillars of the business model.

Business Model Selection at Iranian SMEs

As it is mentioned above, business model describes a business logic and illustrates how a business make money. All businesses have their own unique business models (Hu 2013, p. 591) - regardless this model is taken consciously or not. Of course, nowadays, due to accessibility of knowledge, almost all the businesses try to use the state of art knowledge in order to create, first of all, a competitive advantage, and then to don't lose the competition. Hence, the c-suites tend to do their best to design a unique business model which is, first of all, toward the company's strategies and then is able to compete well in the industry.

Before all, it is worth mentioning that business model selection refers to business model designing (Nosratabadi, Drejeris 2016, p. 62). The reason of use of "selection" is that there are several options can be selected for each business model component. For example, a market can be divided to several segments and it is the decision of managers to which segment of the market they like to offer their products or services. Different market segments are required different product and different distribution channel. Therefore, it imposes different cost structure to the businesses. As it can be seen, a single decision associated with the selection of one component of a business model will be ultimately led to a new business model. Thus c-suites try to make the best decisions to select the proper options for all the business model components.

There are different factors are effective in business model selection. Mohammadian i in. (2014) studied the factors influencing business model selection over SMEs in Iran. They found out process integration (which represents how the organizational processes and internal and external business units are dependent), enterprise strategies, target market, information technology innovations, organizational culture, enterprise size, the nature of product, economics control (economic control refers to the degree to which a market is hierarchical or self-organizing), sourcing, infrastructures, and supply chain are eleven factors that Iranian SMEs C-suites should be very sensitive about them in the business model selection process. Therefore, it can be claimed that business model selection is a process which starts from studying the effective factors in business model designing and finishes by designing business model.

- H1: "process integration" is a necessary element in management of SMEs' business model in Iran.
- H2: the variable of "enterprise strategies" is a necessary element in management of SMEs' business model in Iran.
- H3: "target market" is a necessary element in management of business model of SMEs in Iran.
- H4: the factor of "information technology innovations" is a necessary element in management of business model of SMEs in Iran.
- H5: "organizational culture" is a necessary element in management of business model of SMEs in Iran.
- H6: "enterprise size" is a necessary element in management of business model of SMEs in Iran.
- H7: "nature of product" is a necessary element in management of business model of SMEs in Iran.
- H8: "economics control" is a necessary element in management of business model of SMEs in Iran.
- H9: "sourcing" is a necessary element in management of business model of SMEs in Iran.
- H10: "Infrastructure" is a necessary element in management of business model of SMEs in Iran.
- H11: "supply chain" is a necessary element in management of business model of SMEs in Iran.

Entrepreneurship studies at SMEs in Iran

The first step an entrepreneur has to take is designing a new business model and enterprise entrepreneurship is defined developing new business models to offer new value and taking advantage of the new opportunities. Rezaeian (2006) define entrepreneurship as the process of hunting the opportunities by people, regardless the current resources. Thompson, Alvy, and Lees (2000) define entrepreneurship as a process in which a new value is created using creativity, time, resource, risk, and other factors. Churchill and Lewis (1986) define entrepreneurship as a process in which the utilization of risks and opportunities are always happening. Hence, it can be inferred that entrepreneurship equals to developing a new business model.

Mirabi and Kordloy (2011) studied how organizational structure affects organizational entrepreneurship. They finally found out two out of three elements of organizational structure (i.e. formalization and centralization) are effective on organizational entrepreneurship. To study organizational structure they considered complexity, formalization and centralization.

- H12: organizational structure is a necessary element in management of business model of SMEs in Iran.

Haghshenas et al. (2008) categorized the effective factors on organizational entrepreneurship to two main categories: 1) inter-organizational factors and 2) exter-organizational factors. Inter-organizational factors are organizational structure, organizational culture, strategies, organizational systems, and human resource. On the other hand, they explain that the exter-organizational factors are technology, economics aspect and market, social-cultural aspect, the government, and the industry.

- H13: the factor of “organizational systems” is a necessary element in management of business model of SMEs in Iran.

- H14: “human resource” is a necessary element in management of business model of SMEs in Iran.

Overall Performance of Iranian SMEs: Role of Knowledge Management and Innovation

Different researchers tried to introduce a formula to present how well a business model is performing. Johnson et al. (2008) suggest that the final net profit is a best indicator to evaluate the performance of a business model. Whilst Uyemura et al. (1996) believe that since the business model is just a tool illustrating the value creation offering and delivering, the best indicator is the financial aspect. Of course, other researchers (Zott, Amit 2007, p. 188; Zott, Amit 2008, p. 17; Zott, Amit, Massa 2011, p. 1026) believe that the performance of a business model is finally equal to the overall performance of the company. Hence, they suggest in order to evaluate the performance of a business model it is better to use the general models which assess the overall performance of the company; the models such as Balanced Scorecard.

Ghelichli and Eghtesad (2014) have tried to investigate the role of knowledge management and Innovation in overall performance of SMEs in Iran. In order to evaluate the overall performance, they assess financial performance, interior performance, and finally process performance. In addition, so as for evaluating the innovation, they evaluate innovation in processes and innovation in product. Finally, to appraise knowledge management they study knowledge plan, knowledge acquiring, and knowledge transforming. Their results expose that knowledge management is a determinant factor for both overall performance and innovation activities in SMEs in Iran (see *Figure 1*). Generally, they found that knowledge management and innovation activities explain 58.3% the overall performance of the SMEs in Iran. In other words, knowledge management and innovation are determinant factors affecting the overall performance of business model of SMEs in Iran.

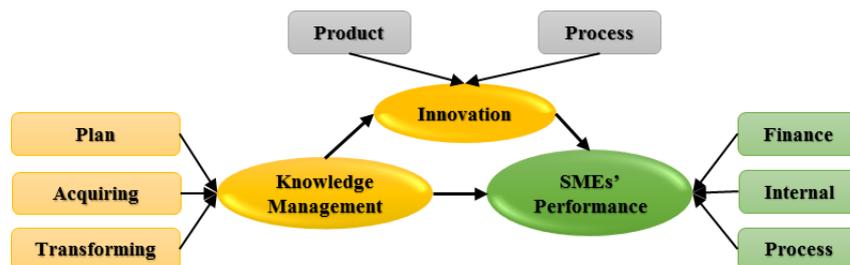


Figure 1. Role of knowledge management and Innovation in overall performance of SMEs

Source: Ghelichli and Eghtesad (2014).

- H15: “innovation” is a necessary element in management of business model of SMEs in Iran.
- H16: “knowledge management” is a necessary element in management of business model of SMEs in Iran.

Conceptual Model

According to the literature and the research done in Iran and mentioned above, this study presents a conceptual framework to manage the business model of SMEs in Iran. This model is based on the hypotheses which are extracted from the research are done in Iran. This model is visually visible in Figure 2.

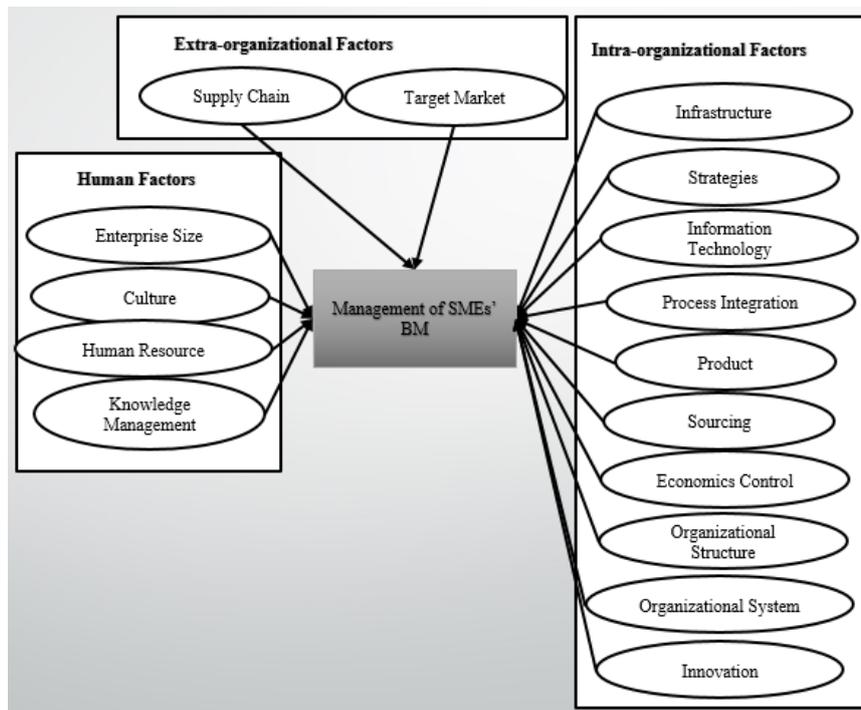


Figure 2. The proposed conceptual model of the study

Source: Own construction

As it is shown in Figure 2 and according to hypotheses the elements of the proposed model of the study are process integration, organizational systems, strategies, target market, information technology innovations, organizational culture, enterprise size, product, economics controls, sourcing, supply chain, infrastructure, human resource, organizational structure, innovation, knowledge management.

Discussion

Figure 2 summarizes our key findings in visual form. Essentially, the illustration captures the key areas that led (and lead) to radical business model change in a SMEs in Iran, and thus provides answers to our research questions. This proposed sense making model of effecting factors on the business model of SMEs in Iran facilitates business model innovation. Since this model provides factors that are proved they affects business models of SMEs in Iran. As it is depicted in figure 2, we went through the sixteen identified factors, we realized that the factors have similarity by their nature. Hence, we categorized the factors based on their similarity and three main categories emerged accordingly. The first category called intra-organizational factor comprising process integration, organizational systems, strategies, information technology innovations, product, economics controls, sourcing, infrastructure, organizational structure, and innovation. The second category called extra-organizational factor including target market and supply chain. The last category, which is labeled human factors, consists human resource, organizational culture, knowledge management, and enterprise size. Therefore, identifying the factors inducing the change is a giant step in managing business model innovation process. If the organizational decision makers know in advance factors

affect their business model, they can monitor their trends and arm themselves accordingly to be prepared for reacting on time and appropriately to their changes and it assist them in business model transformation process.

Conclusion

Due to the important role of SMEs in the economics, especially in a developing economics such as economics in Iran and the importance of a sophisticated business model in success a business, this study is conducted to find the best solutions to manage the business model of a SME in the Iran environment. To answer to the research question of this study a wide literature, especially those are done in Iran environment, was reviewed. Ultimately, the findings revealed that to manage the business model of a SME in Iran, the decision makers should manage sixteen critical areas which are process integration, organizational systems, strategies, target market, information technology innovations, organizational culture, enterprise size, product, economics controls, sourcing, supply chain, infrastructure, human resource, organizational structure, innovation, knowledge management. An experimental research to test the proposed conceptual model of this study is recommended for the future studies. It is also recommended to do the same research in the different economic environment for the future studies.

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COLLABORATIVE INNOVATION PROCESS IN SUPPLY CHAIN MANAGEMENT: INSIGHTS FROM POLAND

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Abstract: The purpose of this paper is to present the scope and effects of the collaborative innovation process in supply chain management. The author discussed the results of the survey research carried out among 202 manufacturing companies (250 or more employees) in Poland, that have co-created innovations in upstream and downstream supply chain relationships. The following subjects are discussed: types of innovations developed in collaboration with supply chain partners, the influence of collaborative innovations on supply chain configuration and performance. Finally, the conclusions as well as recommendations for future research in the field of the innovation process development within supply chain networks, are presented. As a result, this paper provides new insights into the supply chain innovation theory and suggests to managers the role of the collaborative innovation process in managing business relationships.

Keywords: collaboration, innovation development, supply chain management

Introduction

Several studies in business relationships management underline the importance of supply chain management and simultaneously, collaboration in the innovation process (Roy, Sivakumar, Wilkinson 2004; Arlbjørn, de Haas, Munksgaard 2011; Berghman, Matthyssens, Vandenbempt 2012; Narasimhan, Narayanan 2013; Oke, Prajogo, Jayaram 2013; Zimmermann, Ferreira, Moreira 2016). While today's supply chain networks are perceived as a kind of confederations of entities owning complementary resources and collaborating to create value for customers and other stakeholders, companies need to rely on their business partners in order to integrate business processes, achieve higher performance and facilitate innovations. The level of innovativeness in supply chains is an integral, critical part of their strategic success and long-term survival (Seo, Dinwoodie, Kwak 2014). A lot of companies try to complement their own internal resources within supply chain networks being aware that sharing knowledge with supply chain partners might be a significant factor to achieve competitive advantage (Ettlie, Pavlou 2006; Saenz, Revilla, Knoppen 2014).

The paper aims to present the scope and effects of the collaborative innovation process in supply chain management. The intension of the author is to contribute to the improvement of the knowledge about the collaborative innovation process and to provide useful information for managers making decisions in the areas of supply chain collaboration and innovation management. The paper begins with a brief summary of the literature review. Then, methodology of the research is clarified. The next section presents results of the survey research. Afterwards, the following subjects are discussed: types of innovations developed in collaboration with supply chain partners, the influence of collaborative innovations on supply chain configuration and performance. Finally, the conclusions and recommendations for future research in the field of the innovation process within supply chain networks, are presented.

Literature review: the impact of a supply chain perspective on the innovation process

The innovation generation is increasingly perceived as a collaborative process developed with the participation of different entities within and outside the companies (Chesbrough 2003; Ozman 2009; Roy, Sivakumar 2010; Arlbjørn, Paulraj 2013; West, Bogers 2014). Chesbrough (2005) stated "open innovation is a paradigm that assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market" (Chesbrough 2005, p. xxiv). Moreover, Radas and Bozic (2009) pointed out that innovation is most effective as a collective process and the collaboration with other firms adds an important value to the effort of the company for innovation development (Radas, Bozic 2009). In consequence, the companies involved in the collaboration with external parties are disposed to be more innovative than entities relying only on their internal resources, competences or knowledge. The collaborative innovation concept is reflected in supply chain

management defined as “the integration of key business processes from end user through original suppliers that provides products, services, and information that add value for customers and other stakeholders” (Lambert 2001, p. 100). According to Narasimhan and Narayanan (2013), “in today’s supply chain environment, it may be argued that all large-scale innovations are open” (Narasimhan, Narayanan 2013, p. 32). Seo, Dinwoodie and Kwak (2014) noticed that innovativeness in the supply chain is positively associated with the level of supply chain performance and integration (Seo, Dinwoodie, Kwak 2014).

Authors claim that to successfully leverage the innovation efforts in supply chain management, the relationships should be collaborative (Oke, Prajogo, Jayaram 2013; Wagner 2012). The ability to create and manage such relationships is vital for the achievement of potential rewards (Sisodiya, Johnson, Grégoire 2013). Soosay, Hyland and Ferrer (2008) stressed that the partnership development within the supply chain network enables companies to generate and facilitate both incremental and radical innovations (Soosay, Hyland and Ferrer 2008). According to Zimmermann, Ferreira and Moreira (2016), relationships amongst supply chain actors play even the role of potential facilitators of the innovation process. Moreover, Fawcett, Jones and Fawcett (2012) underlined the importance of supply chain trust-based relations as the catalyst for collaborative innovation (Fawcett, Jones, Fawcett 2012).

The ability to innovate within supply chain networks is strongly influenced by the complementarities of resources and knowledge delivered by each partner in the value creation (Cassiman, Veugelers 2006; Luo, Deng 2009). The collaborative innovation development is a sustained and systematic process, in contrast to an occasional or incidental acquiring of the knowledge from external sources. The way in which the firm innovates and its engagement depend on its position and character of ties in the supply chain (Ahuja 2000). The position of the company decides about the knowledge flows and determines the final effects of innovation efforts (Galaskiewicz 2011). The further the position in upstream and downstream relationships in supply chain, the lower probability of participation in the innovation process initiated and managed by a focal company (Wynstra, von Corswant, Wetzels 2010). Most of the papers are focused on the dyadic relationship between the focal company and the chosen supply chain partner, especially on relationships with suppliers (Choi, Krause 2006; Van Echtelt i in. 2008; Henke, Zhang 2010; Azadegan 2011). Several authors considered product innovation development through early supplier involvement (Petersen, Handfield, Ragatz 2005; Salvador, Villena 2013). From the perspective of the focal company, the important determinant of knowledge flows is the way in which this firm controls the network. Authors claim that firms must play a central role within an innovation network to be able to integrate the knowledge (Möller, Svahn 2006; Dhanarag, Parkhe 2006).

With reference to the Oslo Manual published by the Organisation for Economic Co-operation and Development in cooperation with Eurostat, an innovation is “the implementation of a new or significantly improved product (good or service), or process, a new marketing model, or a new organisational method in business practices, workplace organisation or external relations” (OECD, Eurostat 2005, p. 46). The significance of supply chain partners is reflected in the definition of innovation as “the process of making changes to products, processes and services that results in new value creation to the organisation and its customers by leveraging knowledge efforts of the firm and (or) that of its supply network partners” (Narasimhan, Narayanan 2013, p. 28). This concept underlines both the innovation development by the focal company and/or its supply chain partners and reflects its key aim as value creation for the firm as well as customers. The perspective of the innovation collaboration in supply chains is more strongly emphasized by defining the term “innovation within the supply chain network” as “an incremental or radical change in process, structure and/or technology that takes place in the supply chain network to create value for all stakeholders” (Arlbjørn, Paulraj 2013, p. 4).

Authors agree that innovation management has positive influence on supply chain performance. The main determinants of shareholder value, identified with reference to supply chain strategy, are: revenue increase, costs reduction, effectiveness of current and fixed assets management (Christopher, Ryals 1999). In addition, it should be noticed that collaborative innovation might have the indirect influence on supply chain performance through changes in its configuration. According to Srari and Gregory (2008), configuration in the supply network context may be defined as particular arrangement or permutation of the supply network’s key elements including supply network structure, the flow of materials and information between and within key unit operations, the role, inter-relationships and governance between key network partners and value structure of the product or service (Srari, Gregory 2008, p. 394).

Research methodology

The main data were collected in a survey research carried out among 202 manufacturing companies (250 or more employees) from various sectors in Poland, that have developed collaborative innovation process in supply chains. This survey was conducted in cooperation with the Marketing Research Centre Indicator by contacting the respondents by telephone from October to December 2016. The method of the *Computer Assisted Telephone Interview* – CATI was chosen especially to increase the response rate amongst top level managers. The target respondents were managers who possess sufficient knowledge of their companies' strategies and practices, including innovations in supply chain management. They confirmed before each interview that the collaboration with other supply chain actors is an integral element of innovation strategies implemented by companies.

Research results: insights from Poland

The research results have outlined the difference between the significance of upstream and downstream relationships in the innovation process. Most of the manufacturing companies participating in the research (155) have developed the collaboration with direct suppliers. The number of manufacturers collaborating with second and further tier suppliers is much lower (64). This finding highlights that the direct ties in upstream relationships are more relevant for innovation collaboration than indirect ones. The number of respondents' answers is less diverse in terms of the collaboration with particular downstream supply chain partners, namely: customers (other producers) – 64, wholesalers – 85, retailers – 98, logistics service providers – 53 and consumers – 85. Retailers are the most important downstream business partners involved in the innovation co-creation. After the evaluation of upstream and downstream relationships in supply chain management, it is worth noting that suppliers play the most important role in collaborative innovation development. Furthermore, it is very interesting to identify types of innovations, which have been implemented as a result of the collaborative process. Based on the research data, 128 firms have co-created product innovations, 81 – adequately process innovations, 86 – technology innovations, 30 – marketing innovations and 9 – organisational innovations. To conclude, product innovations dominate among the collaborative innovations within supply chain networks regardless of the business partner involved.

The respondents evaluated the influence of innovations on the horizontal, vertical and geographical configurations of supply chains. Firstly, most of the manufacturing companies have reduced the number of tiers across their supply chains as a result of all types of innovations, especially due to product (61), technology (48) and process innovations (31). Secondly, it should be noticed that changes in the vertical supply chain structure are more diversified and depend on the type of innovation. The supply chain narrowing is driven mostly by product (32) and process innovations (32), whereas the supply chain widening otherwise, by product (37) and technology (23) innovations. The special attention of managers is nowadays attracted by changes in geographical configurations of supply chain networks. Based on the research results, changes are observed both on the supply and demand side. Nearshoring is mainly driven by R&D efforts aiming at product innovation (56). Other types of innovations support rather the development of global sourcing with meaningful contribution of technology (45) and process (30) innovations to this achievement. On the demand side, all innovation types support mostly market expansion on the global stage, but simultaneously they are also useful to gain stronger competitive position within the regional and local markets.

The innovation co-creation within supply chain network has also impact on key business processes management. According to the number of completed responses by surveyed managers considering all types of innovations, it should be highlighted that the development of innovations has mostly influenced the following processes: production (203), product development and commercialization (137), supply management (110), purchasing and supplier relationship management (107). Such concentration on the supply side might be explained by the profile of companies participating in the research. Innovations at the supply chain level lead to changes that positively influence supply chain performance in terms of main leverages of value management. Based on opinions of respondents (expressed as the percentage of total answers), manufacturing companies have achieved higher effectiveness of current (31.4%) and fixed (17.6%) assets management, revenue increase (29.6%) and cost reduction (21.4%).

Discussion

Manufacturing companies develop both downstream and upstream relationships to develop innovations in supply chain management. A lot of them are leaders of their supply chains and play the role of integrators in knowledge sharing. The upstream relationships management has nowadays more important significance in the collaborative innovation process. It was confirmed that first tier suppliers are the most important partners in the perspective of supply chains. The probability of participation in the innovation process initiated and managed by a focal company is higher, the closer the position of the supplier in supply chain structure. Furthermore, the collaboration within supply chain networks is mainly focused on the development of product innovations. Additionally, manufacturing companies collaborate with supply chain actors to co-create process, technology, marketing and organisational innovations. All types of innovations cause some changes in supply chain configurations, both in structures and business processes. This work clearly demonstrates the essential role of collaborative innovations in building supply chain competitiveness, because of their positive influence on performance in terms of four leverages of value creation: revenue increase, cost reduction, higher effectiveness of current and fixed assets management. The influence was confirmed by respondents, but without its evaluation and measurement in detail.

The following findings are of special importance for managers. The innovation process is increasingly gaining collaborative character in the perspective of supply chain management. There are significant possibilities to integrate resources and knowledge of various partners in the end-to-end supply chain management to develop different types of innovations. The collaborative innovation process determines changes in supply chain configurations that should be considered in practice. It has positive influence on value management for shareholders based on its main leverages. Finally, it should be underlined that innovations within supply chain networks are gaining rising significance as the competitive weapon in today's business landscape.

Conclusion

The aim of this paper was to present the scope how manufacturing companies merge innovation efforts with their supply chain partners and to outline achieved effects. It emphasizes the importance of involving supply chain actors in the innovation process. The author believes that the research findings contribute to the literature in two areas: supply chain collaboration and innovation management. Noteworthy is that manufacturing companies are mostly involved in the innovation process and co-create value with first tier suppliers. Product innovations dominate among the collaborative innovations within supply chain networks regardless of the business partner involved. The collaborative innovation development determines reconfiguration of supply chain structure and changes in key business processes in supply chain management. The collaborative innovations have positive influence on the main leverages of value management by the focal company. Future research might consider multilateral relationship management, role of supply chain leaders in collaborative innovation process and influence of collaboration on supply chain reconfiguration.

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COMPARATIVE ANALYSIS OF FINANCING PATTERNS OF AGRICULTURAL ENTERPRISES IN UKRAINE, POLAND AND USA

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Abstract: In this paper, we provide comparative analysis of financing patterns of agricultural enterprises of Ukraine, Poland and USA. To compare the financing patterns, we built simplified integral indicators of the financing pattern effectiveness. Likewise, the purpose of the herein paper is to figure out how sectoral factors influence the financing of agricultural enterprises. The analysis showed that the situation with the financing patterns of agricultural enterprises in the three countries is radically different, which was caused by special sectoral preconditions and the results of the functioning of the financing patterns in each country. The best sectoral preconditions for financing patterns of agricultural enterprises were observed in Poland. However, the level of the integral indicator of the financing pattern effectiveness of agricultural enterprises in Poland was less than in the USA over the research period. Ukraine was the antipode of the United States and is considerably inferior to Poland in terms of the effectiveness of the financing pattern of agricultural enterprises.

Keywords: agricultural enterprises, integral indicator of the financing pattern effectiveness, Poland, financial patterns, sectoral preconditions, Ukraine, USA

Introduction

Recent scientific papers studying the financing patterns around the world emphasize different aspects.

In the late 1990s, with the support of International Finance Corporation series research (Singh and Hamid, 1992; Singh, 1995) was conducted about financing patterns of manufacturing corporations in nine/ten developing countries. They made the following main conclusions: 1) corporations in developing countries financed the growth of net assets very heavily by external funds and new share issues; 2) the top developing countries corporations generally rely more on external sources of funds to finance their growth of net assets than similar corporations in developed countries (the corporations in advanced countries mostly used retained profits to finance their investment needs and if they required more financing they utilized banks or long-term debt, and only in extreme cases go to the stock market).

Moritz et al. (2016) investigated SME financing patterns. They expanded taxonomy of SME compared with prior research, which focused on the basic decision between equity and debt. Using cluster analysis, they identified six distinct SME financing types based on the number of financing instruments used and the combinations of these instruments like mixed-financed, state-subsidized, debt-financed, flexible-debt-financed, trade-financed and internally-financed.

Other references concentrated their attention on how some factors like type of financial system (bank-based or market-based), political environment, legal system, macroeconomic conditions, and size of the companies influence the financing of companies (Hackethal et al., 2004; Booth et al., 2001; Demirgüç-Kunt and Maksimovic, 1999; Beck et al., 2008; De Jong et al., 2008; Fan et al., 2010; Gungoraydinoglu et al., 2017).

Hackethal et al. (2004) show that the differences between the financing patterns used in three selected countries (U.S.A., Germany, and Japan) are largely consistent with the differences between financial sector structures, corporate governance regimes and several other financial system elements of these countries.

Demirgüç-Kunt and Maksimovic (1999) find systematic differences in the use of long-term debt between developed and developing countries, and small and large firms. In developed countries with good legal systems, and, consequently, good financial systems, firms have more long term debt, which represents a greater proportion of their total debt. Also, they found that large firms have more long-term debt as a proportion of total assets and debt compared to smaller firms.

Beck et al. (2008) found that firm size, financial development and property rights protection are important factors in explaining the observed variation in financing patterns. Firms in countries with poor financial institutions and small firms use less external financing, especially bank finance.

De Jong et al. (2008) state that in countries with a better legal environment, and more stable and healthier economic conditions, firms are not only likely to take more debt, but the effects of firm-level determinants of financial leverage are also reinforced.

Fan et al. (2010) find contrary results compared with the studies mentioned above. They contend that “firms in countries that are viewed as more corrupt tend to use less equity and more debt, especially short-term debt, while firms operating within legal systems that provide better protection for financial claimants tend to have capital structures with more equity, and relatively more long-term debt”.

The above research showed that various techniques were used with varying degrees of complexity. However, we didn't find any research that used some integral indicators for exploring the financing pattern effectiveness.

In this paper, we provide comparative analysis of financing patterns of agricultural enterprises of Ukraine, Poland and USA. To compare the financing patterns we build a simplified integral indicator of the financing pattern effectiveness. As well, the purpose of paper is to figure out how sectoral factors influence the financing of agricultural enterprises.

Methodology and Data

In this study, financing pattern of agricultural enterprise is considered from the position of the operational approach; it is a certain set of actions based on the external and / or internal funds to finance the assets of enterprise. We also consider the current liabilities are one of the external funds to finance the assets. Mostly in the western references financing pattern is represented long-term sources (Van Horne and Wachowicz, 2007, Brigham and Gapenski, 1993, Singh and Hamid, 1992; Singh, 1995). We included the current liabilities in external funds because Ukrainian enterprises have small share of debt (some of them have zero debt) and many enterprises have small size of equity or negative meaning. As well, such approach (the current liabilities as part of external funds) is used by Ukrainian scientists (Blank, 2011).

The financing patterns of firms including agriculture can be analyzed in different aspects using a variety of methods based on research purpose. To compare the financing patterns of agricultural enterprises of different countries we build simplified integral indicator of the financing pattern effectiveness. This integral indicator allows a generalized assessment of the three main blocks of the defining characteristics of the financing patterns:

- The degree of dependence on liabilities;
- The sufficiency of working capital (the degree of conservatism of the policy of financing current assets);
- The quality of enterprise's liabilities.

The first block is estimated as an indicator of the share of equity in the total asset of agricultural enterprises. The second block is the estimated ratio of working capital and current assets. The third block integrates two components: a) the share of long-term liabilities in the total liabilities; b) the share of loans of financial institutions (banks) in long-term and current liabilities. Combining all these indicators into a single integral indicator is carried out by calculating the average geometric value:

$$II_{EFP} = \sqrt[3]{(I_1 \times I_2 \times I_3)} \quad (1)$$

where II_{EFP} – integral indicator of the financing pattern effectiveness of agricultural enterprises;

I_1, I_2, I_3 – indicators by which the estimated blocks defining characteristics of the financing patterns.

The proposed integral indicator is not ideal because it does not allow evaluation all aspects of the financing patterns of agricultural enterprises of a particular country. Specifically,, it does not allow us to understand which the type of financial system (bank-based or market-based) is associated with the financing pattern, since it assesses only the immediate results of financing connected with the capital structure of enterprises. Also, this integral indicator cannot be applied in a situation when the equity or working capital is negative or equal to zero (a similar situation has been observed over recent years in a number of sectors of the Ukrainian economy, in particular in trade and construction).

Financing patterns of agricultural enterprises are formed under the influence of a set of factors of exogenous and endogenous nature, the full scientific description of which is impossible. There are the factors of general influence on the finances in the country (which can be called monetary) and the specific factors of influence on the financial system. There are also sectoral factors influencing the financing patterns of agricultural enterprises: 1) the state and prospects of agriculture as sectors of the national economy, 2) resource potential of enterprises (in which the agricultural land plays an especially important role), 3) agrarian business models that are traditionally used in the country and their economic efficiency. They largely determine the overall volume and structure of the financial needs of agricultural enterprises, which, in turn, are satisfied by using a particular financing pattern. Therefore, their consideration is preceded by a comparative analysis of financing patterns of agricultural enterprises of different countries using integral indicator.

To evaluate the generalized result of the influence of sectoral factors we used two indicators:

1) amount of agricultural enterprise's assets per hectare of agricultural land, characterizing the level of financial needs of agriculture;

2) agriculture, value added (current \$US) per hectare of agricultural land, which characterizes the state of agriculture in general and the efficiency of the agribusiness models in the country.

The combination of these two indicators allows us to position the country in the coordinate system "the effectiveness of agribusiness - the level of financial needs" and gives a general description of the industry preconditions for the formation of a financing pattern of agricultural enterprises in the country.

Results and Discussion

We found at the initial stage of the analysis that Ukraine, Poland and the USA over 2010 - 2016 had different industry preconditions for the formation of financing patterns of agricultural enterprises (see Table 1).

Table 1. The amount of agriculture, value added and assets of agricultural enterprises per hectare of agricultural land in Ukraine, Poland and USA, 2010 – 2016, USD

Year	Ukraine		Poland		USA	
	value added	assets	value added	assets	value added	assets
2010	2436,42	470,49	6495,86	581,88	4119,48	5870,33
2011	3218,07	601,71	7934,82	662,71	4969,97	6143,42
2012	3307,61	754,63	7080,55	687,16	4582,64	6695,82
2013	3878,64	870,59	8026,16	757,18	5435,31	6933,92
2014	3265,77	687,82	7610,02	795,96	4970,95	7236,25
2015	2569,34	578,69	5626,38	674,08	4334,14	7062,95
2016	2539,12	1011,53	6024,01	641,05	4273,07	7086,12
Average value	3030,71	710,78	6971,11	685,72	4669,37	6718,40
Coefficient of variation, %	16,2	24,1	12,6	9,7	9,4	7,2

Source: Own elaboration based on data (World Bank 2018, SSSU 2018, NBU, 2018, CSOP, 2018, NBP, 2018, USDA, 2018)

According to Table 1, there is similarity only in the value of the level of financial needs of agricultural enterprises in Ukraine and Poland. However, the value for Ukrainian enterprises is much more unstable, as shown by the coefficient of variation of assets per 1 hectare of agricultural land in Table 1. This is due to the rapid growth of agriculture in Ukraine after the end of the global financial crisis in 2010 and the deployment of a new phase of crisis in the country after 2013.

Figure 1 illustrates the difference between the combinations of indicators, which characterize the sectoral factors influencing the financing patterns of agricultural enterprises in the three countries selected for comparison.

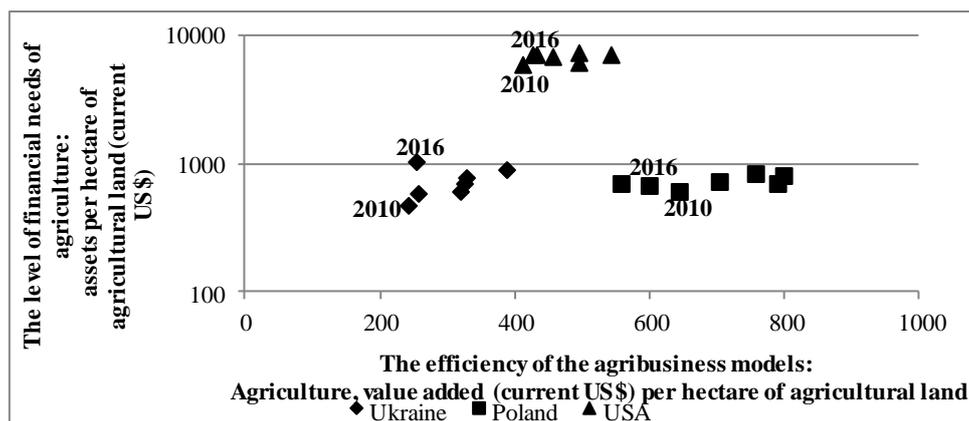


Figure 1. The correlation between the agribusiness efficiency indicators and the level of financial needs for agricultural enterprises of Ukraine, Poland and the USA, 2010 to 2016 (abscissa axis - logarithmic scale)

Source: Own elaboration based on data (World Bank 2018, SSSU 2018, NBU, 2018, CSOP, 2018, NBP, 2018, USDA, 2018)

The best sectoral preconditions for financing patterns of agricultural enterprises were observed in Poland over last years (see Figure 1). In particular, the high productivity of agricultural land combines with relatively low level of financial needs. Ukraine is substantially inferior to Poland in terms of the efficiency of agribusiness, and the United States - both in terms of efficiency and in terms of financial needs, which is an order of magnitude higher.

However, it should be noted that the above results of the analysis of sectoral preconditions for Ukraine need to be criticized for two reasons. The main reason that makes it impossible to compare the indicators of Ukrainian agricultural enterprises, given in Table 1, with indicators of enterprises of other countries is that the main component of the resource potential – agricultural land – there are no objects of sale in Ukraine and they are in a lease. Therefore, the agricultural land does not have a full-fledged display of assets in the financial statements of enterprises at fair value, distorting the overall picture. The second reason for the critical attitude towards the results is the presence of a rather powerful shadow sector in Ukraine in all sectors of the economy (including agriculture), the results of which are not fully reflected in the statistical data.

For the same reason, it is problematic to compare the key indicators characterizing the financing patterns of agricultural enterprises in Ukraine and other countries. In particular, this refers to the factor of the financial leverage (see Table 2).

Table 2. Financial leverage of agricultural enterprises in Ukraine, Poland and USA, 2010 – 2016

Year	Ukraine	Poland	USA
2010	0,93	0,40	0,15
2011	0,81	0,36	0,15
2012	0,84	0,33	0,13
2013	0,95	0,34	0,13
2014	1,19	0,36	0,13
2015	1,45	0,39	0,14
2016	2,43	0,39	0,14
Average value	1,23	0,37	0,14
Coefficient of variation, %	43,4%	6,8%	6,0%

Source: Own elaboration based on data (SSSU 2017, SWAiD, 2018, USDA, 2018)

The average value of financial leverage of agricultural enterprises of Ukraine was 8 times than in Poland and in 20 times higher than in USA at the end of 2016. According to the traditional scientific views of capital structure the high value of financial leverage of agricultural enterprises of Ukraine should be considered excessive which is not appropriate in a rational economy. However, the comparative analysis is not adequate because without taking into account the evaluation of agricultural lands the value of farm's equity is understated. Understatement of equity leads to overstatement of financial leverage. Therefore, in this case it is not correct to compare the financial leverage of agricultural enterprises of Ukraine with financial leverage of enterprises where the agricultural lands include in evaluation of their asset and equity like in USA and Poland.

Nevertheless, if we compare the Ratio working capital to current assets of farms in Ukraine with other countries this comparison is correct because the absence of evaluation of agricultural lands in balance sheet doesn't affect the ratio (see Table 3). This argument concerns to others indicators, which characterize the financing patterns of agricultural enterprises listed in Table 3.

Table 3. Indicators which characterize the financing patterns of agricultural enterprises in Ukraine, Poland and USA, 2010 – 2016

Indicator	Ukraine		Poland		USA	
	2010	2016	2010	2016	2010	2016
Financial leverage	0,93	2,43	0,40	0,39	0,15	0,14
Ratio working capital to current assets	0,44	0,21	0,61	0,68	0,59	0,43
The share of current liabilities per total amount of liabilities, %	0,68	0,92	0,66	0,50	0,45	0,40
The share of bank loans per the total amount of liabilities, %	0,36	0,07	0,39	0,35	0,83	0,87
Share of short-term bank loans in current liabilities, %	0,16	0,04	0,16	0,21	0,79	0,85

Source: Own elaboration based on data (SSSU 2017, SWAiD, 2018, USDA, 2018)

According to the data of the Table 3, in 2016 Ukraine, Poland and the USA had fundamentally different financing patterns of agricultural enterprises. Moreover, in Ukraine, the financing pattern experienced significant negative transformations in comparison with 2010 (as evidenced by a significant deterioration in the indicators used to evaluate the blocks of defining characteristics of the financing pattern); while in Poland and the US it has not significantly changed. The latter conclusion confirms the dynamics of the integral indicators of the financing pattern effectiveness in the three countries, as illustrated in Table 4 and Figure 2.

Table 4. The indicators of the financing pattern effectiveness of agricultural enterprises in Ukraine, Poland and USA, 2010 – 2016

Indicator	Ukraine		Poland		USA	
	2010	2016	2010	2016	2010	2016
The sufficiency of working capital's degree of dependence on liabilities	0,52	0,29	0,71	0,72	0,87	0,88
The sufficiency of working capital	0,44	0,21	0,61	0,68	0,59	0,43
The quality of liabilities of enterprises	0,28	0,07	0,29	0,37	0,67	0,72
The integral indicator	0,40	0,16	0,50	0,56	0,70	0,65

Source: Own elaboration based on data (SSSU 2017, SWAiD, 2018, USDA, 2018)

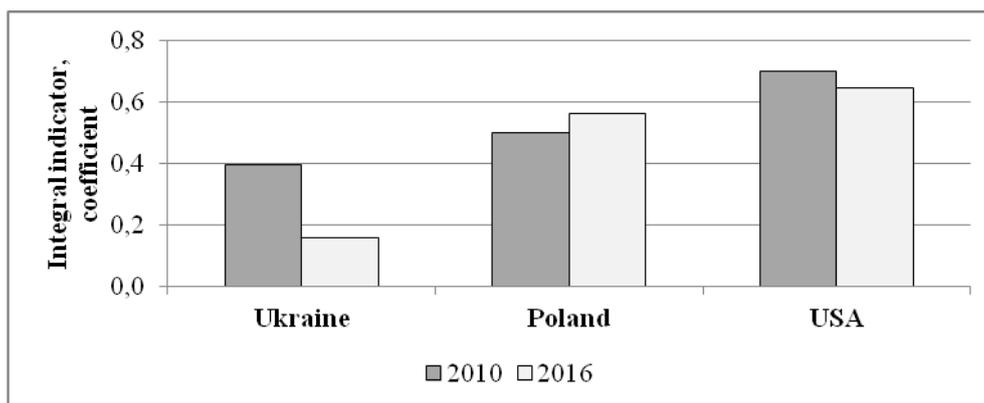


Figure 2. The integral indicator of the financing pattern effectiveness of agricultural enterprises in Ukraine, Poland and USA, 2010 – 2016

Source: Own elaboration based on data (SSSU 2017, SWAiD, 2018, USDA, 2018)

According to the data in Table 4 and Figure 2, Poland was the only country in which the integral indicator improved during that period, although it still lags behind the United States. Ukraine had an outsider position – the integral indicator had much lower value than in other countries.

Conclusion

The analysis showed that the situation with the financing patterns of agricultural enterprises in the three countries selected for comparison is radically different. Firstly, each country has significant special sectoral preconditions for the formation of financing patterns. Secondly, the results of the functioning of the financing patterns in each country are different and vary in different ways during the research period.

Poland was the leader in increasing the effectiveness of financing patterns of agricultural enterprises. However, taking into account the favorable sectoral preconditions in this country, it would well have exceeded the United States by the level of the integral indicator of the financing pattern effectiveness of agricultural enterprises, but this did not happen.

The financing patterns of agricultural enterprises in USA shows high efficiency as a whole and for individual blocks defining characteristics of the financing patterns, despite the significantly worse sectoral preconditions compared to Poland and a certain decline in the integral indicator of the financing pattern effectiveness. The main reason for such situation in the United States is the availability of an efficient system of specialized financial institutions serving agricultural enterprises, which corresponds to the findings of a number of scientific articles devoted to the problems of financing agricultural businesses in the United States.

Ukraine is the antipode of the United States and is considerably inferior to Poland by the effectiveness of the financing patterns of agricultural enterprises. However, the final correct conclusion about Ukraine is possible only if the full value of agricultural land is included in the assets of Ukrainian enterprises. However, even without this, we can conclude that the financial system of Ukraine (in particular it's banking component) is inadequate for financing agricultural enterprises. This is reflected in unacceptably low values as the share of bank loans in total amount of liabilities, and as the share of bank loans in current liabilities. As well, the financial system is a result of the deterioration of the functioning of the financing patterns, and therefore leads to an excessive increase in the risk of financing agricultural enterprises of Ukraine.

Thus the comparative analysis, which was carried out, allows us to illustrate how the specific sectoral preconditions that have developed in individual countries affect the financing patterns of agricultural enterprises. The study gives reason to assume that the effectiveness of the financing patterns of agricultural enterprises is not directly related to the sectoral preconditions in the country. This assumption is further subject to a thorough scientific examination. The article shows the results of only the initial phase of the study. Future studies will include an improvement of the integral indicator of the financing pattern effectiveness of the agricultural enterprises and the identification of the main factors influencing it in order to develop the tools for regulating these patterns and agribusiness in general.

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RURAL WOMEN ENTREPRENEURSHIP IN TURKEY

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Abstract: Rural areas are the areas where economic development is restricted to natural resources, where technological developments are delayed compared to other regions, life is shaped according to more traditions, its own cultural structure and people's standard of living are lower than other regions of the country. In recent years, women's entrepreneurship, which has become widespread in the world, creates a favourable employment opportunity for women and is seen as a source of income for their families. While the work of women as owners of their own work has a long history, the contributions of a country to its gross national and domestic output are predominantly in the last thirty years, and in some countries only in the last five years. The obstacles faced by women seeking to establish their own firms in the countryside have emerged in general as the stereotypes of women's roles in the social and cultural environment, bureaucratic obstacles, role conflicts, inadequate training, lack of funding and lack of organization. Considering the limited nature of the rural area, socio-demographic characteristics and cultural values, the business initiatives that women undertake in rural areas are also of great social importance. There are several national and international incentive schemes for women to be hired or employed in rural areas. This work focuses on women's entrepreneurship and its rural impacts in Turkey.

Keywords: female entrepreneurship, rural development, Turkey

Introduction

The topic of women's entrepreneurship is accepted by many scientists as a separate research topic within the wide field of entrepreneurship. With the emergence of the concept of female entrepreneurship in the mid-1990s, the number of women entrepreneurs in the world increased, and in parallel, the interest of academics and politicians increased and this led to the rapid spread of scientific research in this field. This research movement has spread and matured over the last 20 years with more complicated work involving a wide range of expertise issues such as the work structure of women, the nature and variety of business networks, the differences in management styles, the performances of men and women-run businesses (Hoxha and Krasniqi, 2008; Driga et al., 2009).

In general, it is possible to define the definition of "female entrepreneur" within the following limitations (Sekerler, 2006):

- A person who carries out activities related to the production of any goods or services, who performs / makes distribution, marketing and sales of such goods or services,
- Any person who establishes a relationship with the person, institutions and organizations that should communicate in relation to the business,
- Organizing the business process, planning the production of goods and services, deciding on its own for the operation, closure or work development of the workplace,
- Having a say in the investment and utilization areas of the profit obtained from his business,
- Entrepreneurial fellow who works alone or in association with other persons employed in this workplace and / or as a proprietor of work.

In recent years, women's entrepreneurship, which has become widespread in the world, creates a favorable employment opportunity for women and is seen as a source of income for their families. While the work of women as owners of their own work is very old, the contribution of an individual to the gross national and domestic output has predominated predominantly in the last thirty years, and in some countries only in the last five years (Mboko and Smith-Hunter, 2009).

The creation of an environment in which women are able to remove obstacles to the establishment and development of their own business and compete on an equal basis with men is of great importance to the entrepreneurial sector and plays an important role in national growth strategies. In this direction, women business owners create new business areas in entrepreneurial activities and have the potential to become important players in the new, knowledge-based economy.

Qualifications and Characteristics of Female Entrepreneurs

Susanne Jalbert (2003) lists the characteristics of women entrepreneurs in the following way (in Kutlu, 2006):

- Courage propensity
- High energy level
- Personal guiding
- Married and first child
- Social resourcefulness
- Financial competition
- Personal and general management skills

In addition to creating a new enterprise, women are more concerned about developing the enterprise and making it a successful enterprise, paying more attention to the quality and standards of the operator, the quality of service, and the role of the operator as a respectable organization in the market (Kutlu, 2006).

Personal characteristics that describe female entrepreneurs in the studies that have been carried out; Dynamic, independent, confident, competitive and goal-oriented (Zapalska and Fogel, 1998). In addition, women who pursue entrepreneurship activities are also described in terms of being ambitious, taking risks, controlling their own work (Zhao, 2005).

However, it can be stated that these features mentioned above are not characteristics representing the whole of female entrepreneurs, and they show differences according to sector, socio-cultural values, work place. Therefore, it is necessary to evaluate the characteristics of entrepreneur women in this context (Soysal, 2010).

In this context, personal characteristics of female entrepreneurs can be considered in three contexts. Personal characteristics arising from being an entrepreneur; self-confidence, creativity, innovation, risk taking, rationality, independence and competitiveness. On the other hand, entrepreneurship characteristics related to socio-cultural values are; respectable, able to appreciate the resources and relationships in their surroundings, protecting and supervising, cooperating, gaining the support of close relatives and relatives. Another characteristic of women entrepreneurs in the context of revealing their personal characteristics is that they are characterized by their gender roles. These can be listed as good communication, easy to solve problems, tolerant, selfless and emotional (Yetim, 2008).

Table 1: Participation of Female in Ownership

Economy	Percent of firms with female participation in ownership	Percent of firms with majority female ownership	Percent of firms with a female top manager
Turkey	25,04	0,30	5,40
Hungary	47,10	10,04	20,04
Romania	47,00	12,05	20,01
Croatia	32,10	16,40	18,70
Poland	40,40	16,90	20,06
Ukraine	31,50	12,90	18,80
Pakistan	11,80	8,00	6,00

Source: *The World Bank (The World Bank, 2013)*

Table 1 show some of data from developing countries which was provided by World Bank database. Hungary has the highest rate on percent of firms with female participation in ownership as 47,1% while Turkey is only 25,04. At the same time, Pakistan has the lowest rate on female participation in ownership. Furthermore, Turkey has the lowest percentage for firms which is majority of owners are female, while Poland has highest percentage. It is clear that the female entrepreneurs in Turkey have constructed strong-ties-based social networks with close connections with family members, relatives and other women, and they have benefited from these networks as sources of their capital. (Yetim, 2008) It has to be mention that Turkey should increase the percentage of female entrepreneurs and female power in work life. It is one of the process for Turkey's to the participation process of European Union. (Kutluay Tutar & Şahin, 2017)

Problems That Female Entrepreneurs Encounter

Investigating the opportunities and challenges faced by women in entrepreneurial activities constitutes a significant part of research that addresses the gender factor in entrepreneurship. Studies in this area have shown that women face much more difficulties in terms of entrepreneurship than men (Zhang et al., 2009; Mueller and Dato-On, 2007).

In the European Commission's "Good Practices in Supporting Women Entrepreneurship" report, it is stated that women who are the source of economic growth and creation of new jobs and who are supposed to be encouraged face many barriers to business based on gender (Verheul, 2005). In this context, female entrepreneurs are often more concerned than male entrepreneurship, such as working in areas where men are influential, having fewer role models and facing more difficulties when compared to men in funding.

In general, it is possible to examine the obstacles faced by women who want to establish their own jobs in the urban and rural areas, under six headings: socialization in the social and cultural environment, bureaucratic obstacles, role conflicts, inadequate training, lack of funding and lack of organization. These are (Kutanis and Hanci, 2004):

Lack of Funding: Many women are excluded from economic life because they do not receive sufficient financial support when they want to participate in economic activity (Can and Karataş, 2007). While women's credit availability is limited, there are no discriminatory or restrictive rules for banking, mortgages and other financial loans in terms of banking legislation. Supportive regulations are also being made in this respect. However, the level of information about the funds withdrawn and the opportunities for women to use these loans is not sufficient (Gurol, 2000). Women can not apply for bank credits because they do not have the assets to cover the collaterals requested by the banks and can not find guarantors. They also refrain from applying for credit because of the short maturity of the loan, the late result of the loan request, and the high interest rates. For these reasons, the work they do is usually with small capital and small-scale.

Stereotyped Female Roles: Historically, women have been given various roles and the fulfillment of these roles has become a task for women. Accordingly, the role of "the mother of the child, the woman of the house", traditionally imposed on the woman in society, still exists despite the rapid change in society today. For this reason, women who participate in the working life compete with male competitors in their professional lives and assume more responsibility by trying not to disrupt their role (Orucu et al, 2007).

Lack of Organization: One of the problems faced by women entrepreneurs is the difficulty in organizing among entrepreneurial women. Organizing will ensure that entrepreneurial women are informed of each other and support each other in business life. In this context, the aim of the organization is to bring together women working in the same job or profession to establish cooperation, solidarity and coordination among themselves. An organizational activity to be carried out among female entrepreneurs in this direction should aim at realizing the objectives ; to support women who want to start new business, to guide them in the establishment phase, to guide them to get credit, to coordinate and communicate among workers in close business lines, to organize social relations among members, to support other legal organizations and groups and to support legal problems (Koc, 2005).

Investigation of Women Entrepreneurship in Rural Areas

The rural area is defined as the area in which the rural population lives and operates, whose production activities are based on agriculture. The sociocultural, demographic, economic, environmental and spatial diversity of the rural areas, together with the changing conditions of the time, make it difficult to define a definite rural area. In the end, countries make their own specific rural area definition, taking into account their own administrative structures, and also use different definitions of rural areas in studies carried out for different purposes. In these definitions, the rural areas can be considered as a piece of land and the criteria such as agricultural pattern, land use and proximity to the cities can be taken into account and these areas can be evaluated according to sociocultural characteristics such as social representation, habits, diversity in economic activities, demographic decline and migration (Okten and Ceken, 2008).

Rural areas are regions that are confined to the natural resources from the economic point, where technological developments are delayed compared to other regions, the life is shaped according to traditions, the cultural structure has its own and the standard of living of the people is lower than other regions of the country.

The main features of rural areas can be listed as follows (AREM, 2009):

- Rural living environment and economic activities depend on the use and evaluation of significant natural resources of production.
- Economic, social and cultural development process is relatively slow.
- The rate of survival and production reflection of technological development is relatively delayed.
- Traditions and traditions have a great impact on their way of life and their rules.
- Lifestyle and consumption patterns have relatively traditional characteristics.
- Face-to-face relationships among people.

Rural areas in developing countries are areas where structural and institutional elements are lacking that are facing geographically isolated infrastructure investments and government support that are facing poverty and population decline. Various social, economic, political and ecological problems in these regions cause problems in employment, increase in immigration of large cities and decrease of agricultural production, resulting in increase of food shortage (Ozgen and Minsky, 2007).

In addressing the rural area and rural development, one of the elements that should not be ignored, and even more important, should be kept in the center of this area; Rural women come in with their daily lives and their contributions to rural production activities. Especially in developing countries, women are the backbone of rural economies and play an important role in ensuring the prosperity of their families (Kibas, 2005).

Rural women differ according to the traditional structure and the fact that the way of occupation is different from the women in the cities. In rural areas, women are involved in housekeeping such as cleaning, child care, fueling, bread making and nutrition, as well as crop and animal production, handicrafts, non-agricultural jobs and income-generating activities. Despite such important works, they can not participate effectively in decision taken about the production within the family (Driga et al., 2009).

Although the problems faced by women and men farmers in relation to land use and land use are common in rural areas, women are more disadvantaged than men due to the influence of traditions. Apart from traditions, many factors affect gender discrimination in agriculture. As a result of these negative effects, women are increasingly burdened in agriculture and inequalities arise in reaching the necessary resources and subsidies (Zanbak, 2008).

The problems that rural women face are one of the issues studied by many researchers. In contemporary rural communities, women often do not have a very active role. Modern agricultural production processes have caused a great deal of work previously done by women to disappear. In addition, women often have to work as low-paid, low-status workers or unpaid family workers because there is little opportunity for quality employment in rural areas (Driga et al., 2009).

Although the role and functions of rural women in agricultural production activities are quite high, the education level of the vast majority is low, as rural women, who make up a large part of their agricultural production activities as unpaid family workers in small family businesses. For this reason, improving the level of knowledge, skills and education of rural women is extremely important in terms of consciously participating in production (Driga et al., 2009).

The projects for women living in rural areas will provide important contributions to raising the level of living, which is primarily based on literacy teaching, skill development, and income generation on the basis of production for market. Giving vocational training to women to earn income-generating skills and consequently earning income by selling the products they produce; cause them to participate more in economic life, get more share without development, and improve their position in family and society (Ozgen and Minsky, 2007).

Rural entrepreneurship, an important factor in the elimination of developmental disparities among the majority of developing countries and in ensuring rural development; Poorly developed regions with low income levels, inadequate infrastructure, economic stagnation, low educational level, unskilled workers, and so on. In this context, promoting entrepreneurship is an important factor in economizing power in the impoverished rural areas, as it creates wealth and employment and has an important influence on the quality of life of the rural population. (Ozgen and Minsky, 2007)

According to the new rural development paradigm, entrepreneurship is an important means of encouraging internal growth within the rural development policy. Entrepreneurship contributes more to rural development than to growth in economy and employment. Entrepreneurship is seen as the only solution for the younger population growing in the rural area and helps many people to create jobs in their own social systems, to diversify locally available services and consequently to retain the local population in the region. One of the social functions that entrepreneurship has in the rural area is to offer

women local career alternatives. This is important for women in rural areas, in particular, to contribute to family budgets, while fulfilling their farm, home and animal-centered duties. Developments in entrepreneurship among rural women help to increase their personal abilities, as well as to change the role of decision making in society and family (Sidhu and Kaur, 2006; Driga et al., 2009).

In a rural area, a woman's ability to integrate capital, such as knowledge, land, money and hand labor, with her personal skills such as self-confidence, creativity, problem-solving ability, leadership and risk taking, in an organizational structure (network of formal or informal relationships) and to find buyers on the market is evaluated as entrepreneurship activity Whereas; is not considered entrepreneurial activity if it can not be grown using capital, personal characteristics and networks in a sustainable way and does not generate income by selling the product on the market.

The vast majority of studies on women's entrepreneurship have made no distinction between urban and rural areas, except for a few studies focusing on gender differences in the success of small businesses in rural areas. There are no studies to determine the possible reasons for the low level of entrepreneurship of rural women. However, it is necessary to be aware of the gender system existing in modern societies in order to study women's entrepreneurship in general and women's entrepreneurship in rural areas in particular (Driga et al., 2009).

Today, more entrepreneurship is needed to ensure rural development. In this context, entrepreneurship-promoting institutions and individuals view entrepreneurial activity as a strategic development initiative that can accelerate the rural development process. In addition, these institutions and individuals seem to agree on supporting rural initiatives. According to this, rural entrepreneurship is seen; by development agencies as a great potential for employment; politicians as basic strategy to prevent discomfort in rural areas, farmers as a means to increase agricultural incomes and women as a job opportunity that gives them autonomy and reduces their social support needs. For all these groups, however, entrepreneurship is a means to increase the quality of life of individuals, families and communities and to create a healthy economy and environment (FAO, 1997).

Rural Women Entrepreneurship in Turkey

According to Ozar's research (2005) one of the rural area which is called as GAP, the share of women in total female employment is in Gaziantep 75%, Diyarbakir 84%, Adiyaman 85%, Sanliurfa 89%, Mardin 90%. In the same study it has been found out also the percentage of women entrepreneurs in Sanliurfa 4%, Mardin 5%, Adiyaman 5% and Gaziantep 6%.

Kızılaslan and Ymanoğlu (2010: 160-161) found that a total of 171 households in Tokat province were surveyed and found that only 63.74% of women were allowed to pay the allowance provided by their spouse and only 0.58% worked in their own jobs.

When researches about what kind of work the women entrepreneurs in the rural parts of Turkey are looking, it has been determined that women are mainly engaged in activities such as natural foods, processed food products, handicrafts, mobile salesmen (Kantar, 1999: 30-34).

A research which is supported by TUBITAK with cooperation of Abant Izzet Baysal University and Ondokuz Mayıs University in the field of women entrepreneurship development analyzed in 12 cities of Turkey. Based on the result of 615 sample, it has been found out that 15.1% of the women entrepreneurs are illiterate, 64.4% of them are married when they were younger than 20 years old. In addition, 35.3% of women entrepreneurs are artisans and 30.4% are home-based producers. Other findings of the research; 39.3% of the entrepreneur women described the work as entrepreneurship, and 34.6% did not know what is entrepreneurship. Furthermore, it is also seen that in a village where 34.3% of entrepreneur women live, 25.4% sell their products through familiar means, 34.8% have no goal for the future, 63.4% of them do not know any credit / finance institutions, 80.8% do not prefer to establish a joint business, 76.8% need credit but only 8% of them used credit and 10.6% of the women entrepreneurs motivation is to be a big business entrepreneur. (Yetim, 2008)

Conculusion

The changing social, economic and cultural conditions have strengthened the place of women in today's business life. As a result of this, there is a relatively increase in the number of women who set up their own business. It can be argued that in rural areas women are also getting touch with

entrepreneurial activists, even if they are male-controlled. The success of women's entrepreneurship activities in rural areas depends on the establishment of a suitable infrastructure for financial, managerial, organizational, educational and similar supports to be given to women in society and elimination of "discriminatory" barriers in front of them.

It is fair to say that, women population which lives in rural areas are in starting and continuing the trend of their entrepreneurial activities in Turkey. Even the numbers are not high enough, it seems that in the future it is going to be in better situation. It is also well-know fact that for rural women entrepreneurship in Turkey, there are some barriers such as; low levels of education, insufficient institutional information, insufficient local governments, gender inequality, low level of education, low level of education, and inadequate attitudes towards society, repressed prejudices, suppressed women's behavior, psychological self-entrepreneurship, disorganization.

In the context of strengthening and developing rural entrepreneurial women, the following suggestions can be given;

1. cooperation and coordination between the private sector and non-governmental organizations should be strengthened. In order for this cooperation to be more systematic and sustainable, it will be important to support the organization of women entrepreneurs. In particular, training and workshops for the understanding of importance of cooperation speed up the organization process.
2. For a sustainable increase in women entrepreneurship in rural, entrepreneurship potentials should be improved by organizing courses to encourage vocational adoption and entrepreneurship in order for educated girls to play a more active role outside the family.
3. It will play a very important role in raising "role models" in removing obstacles to women's entrepreneurship, empowering business, guiding and informing points, facilitating and increasing access to funding sources.
4. Facilitating access to micro-credit services in particular and promoting positive discrimination practices in banks and financial institutions in rural areas can be considered as a driving force in economic and socio-cultural strengthening of women.

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THE AGEING OF THE POPULATION IN RELATION TO SUSTAINABLE ECONOMIC DEVELOPMENT

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Abstract: The concept of the silver economy represents the economy where the high proportion of consumption is created by seniors. In the context of current demographic developments in Europe, they are becoming an increasingly important and growing group of European society and the economy. According to the European Union, the silver economy is made up of consumers over the age of 50. In the herein paper, we evaluate the selected age groups of the population – population of the middle aged, population of the early old age and population of the old age and longevity age within the EU member states. In addition, in the article we evaluate these selected age groups in the context of their specific position on the labour market in the Slovakian Republic. Data evaluation was realized via the method of regression analysis and the estimation of the trend function. The analysis shows that in all EU member states the number of population increased in the following age groups: the middle aged, the early old age and also in the old age, and longevity age between 2006 and 2016. From the point of view of applying these age groups on the labour market in the Slovakia Republic, all three groups work as self – employed with employees or also without employees.

Keywords: ageing of the population, economically active population, labour market, silver economy, sustainable economic development

Introduction

The concept of silver economy is the subject of active discussion for authorities of the European Union. Population over 50 faces two actual phenomena: the increase in longevity and the decrease in birth rate. It is evident, that the population of Europe is ageing. This phenomenon is a major challenge for the society, but it can also be a great opportunity for business and economy. According to Schulz and Radvansky (2014), ageing is currently considered as a significant social and economic issue in Europe. The effects of ageing on the consumption structure will lead to structural economic challenges. Increase in the demand for some specific goods and services could be considered as an opportunity for some sectors or even small countries. We assume that almost all newly-created jobs will focus on the increased consumption of the elderly and its structure.

The “Silver economy” project focuses on developing strategies related to population ageing, mainly by means of special technology services. These services generally aim to support well-being with through health monitoring, robotic assistance, electrical mobility or sport activities, including health tourism, green care and web based home care solutions (Zsarnoczky, 2016). European Commission (2015) defines the “Silver Economy” as the economic opportunities arising from the public and consumer expenditure related to population ageing and the specific needs of the population over 50. The ageing population can be divided in 3 groups, each with their own need-patterns: active, fragile and dependent. Thus the Silver Economy comprises a large part of the general consumer economy, but with considerable differences in spending priorities and patterns. Batra (2009) say that main idea of the “Silver economy” is that supplying goods and services for the growing sector of elderly consumers has the potential to stimulate economic growth and create new jobs. According to Magnus (2009) the sheer scale of this increase implies many inter-related transformations in the very nature of societies and policymakers at local, national and supranational level (such as the European Union) recognize the need for research which maps social arrangements and structures, behavioral patterns and the potential to exploit the so-called silver economy. The “new elderly” have an impact on almost all segments of the economy. The Figure 1 shows that silver economy plays an important role in several different economic fields. The needs of the elderly create a pull-effect that will result not only in economic growth, but also will cause an unparalleled social alignment (Zsarnoczky, 2016).

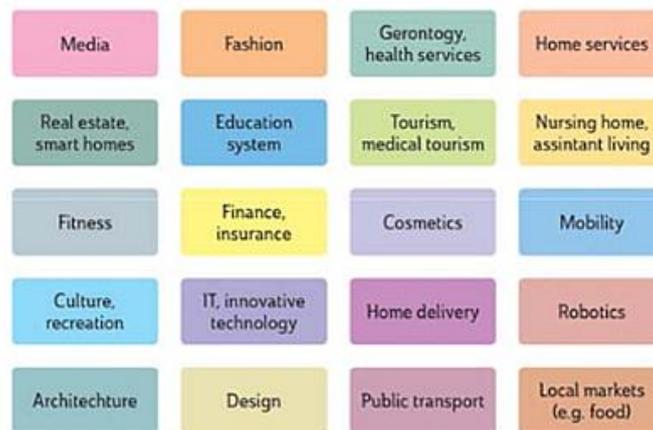


Figure 1. Economic segments of the silver economy

Source: Zsarnoczky, M. (2016), *New Hope for the EU*

While in the past, older people in the role of consumers were not regarded as a financially strong and free-spending target group by providers of products and services, this perception has changed in the meantime. The days are long gone when the concept silver market was seen to pertain only to typical seniors' products or seniors' services which for the most part form part of the classic social services of public and independent non-profit organizations (i.e. especially of the local municipalities and of the charities). Today, in fact, the silver economy comprises products and services in very diverse and by no means only "social" market segments and, in addition to the health economy, affects such diverse sectors as mobility and IT (Enste, Naegele and Leve, 2008). Assumption of realization of silver economy concept more broadly is that convergence processes started in countries that joined EU. Although new EU countries took major steps towards economic integration in recent decades, due to the diverse economic level, the differences in wage and pension levels in old and new EU member states can be still observed. The territorial enlargement of the EU meant acceptance of countries, which were undergoing transformation process aiming to create a competitive free market. This was accompanied by decreasing of economic importance of some sectors (e.g. agricultural), by increasing inter and intra-regional income disparities and by growing risk of poverty (Pauhofová and Dovalová, 2015). Innovations are the integral part of long-term developing of the countries and positively affect their growth (Pirmatov, Horská, Pulatov, 2017).

Objective and methodology of the research

The objective of the paper is to analyze the share of population ages 50+ on the total number of inhabitants in selected EU countries and comparison with the state in the Slovak Republic. Another objective of this contribution is to evaluate the development of the number of selected population groups - the middle age (aged 45 - 59), the early old age (aged 60 - 74) and the old age and longevity age (aged 75 and over) of the number of the economically active population in the Slovak Republic in the period from 2011 to 2016 and also we analyze these age groups in relation to the labor market. In the analysis of these quantitative indicators we processed statistical data about the number of inhabitants in individual age categories and data on the economic activity of the inhabitants in individual EU countries in the period 2006 - 2016, respectively 2011 - 2016. Data evaluation was realized via method of comparison, method of analysis and synthesis, regression analysis, and estimation of the trend function. Graphical outputs were made using MS Excel tools.

Results and discussion

Population ageing can be described in quantitative way by an increasing median age in the population which occurs due to declining fertility rates and/or rising life expectancy. The impact of the transformation of the age structure of the population on economic growth is governed by a strict law (Zhao and Zhu, 2016). The research study of Choudhry, Marelli and Signorelli (2016) finds strong

empirical evidence in favor of the hypothesis that the age composition of population matters for labor productivity growth. Results suggest that higher age dependency not only directly impacts negatively on labor productivity but also modifies the impact of other determinants of labor productivity.

Stojanova and Bittnerová (2017) assessed the impact of minimum wage on the current employment situation of workforce category 50+ and compare situation in the Czech Republic, Hungary, Poland and the Slovak Republic. There was confirmed the positive dependency between the minimum wage and number of people aged 65 or over; minimum wage grew in relation with a growing number of people mentioned age.

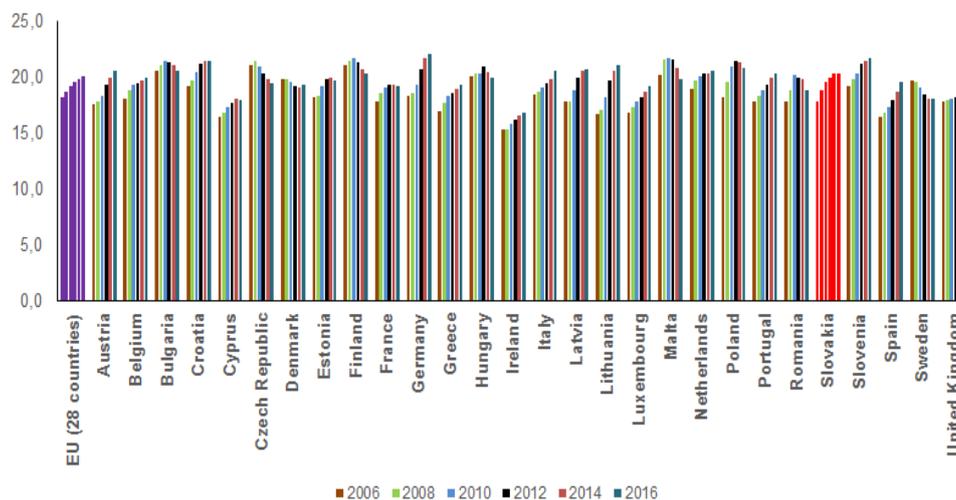


Figure 2. The percentage share of population aged 50 - 64 in individual EU Member States

Source: Statistical Office of the Slovak Republic, own processing

Figure 2 shows that the population aged 50 - 64 represents, on average, between 15% and 22% of the total population in all EU countries. This population group is made up of people who are still employed, but also those who are just before retirement, respectively already in retirement age.

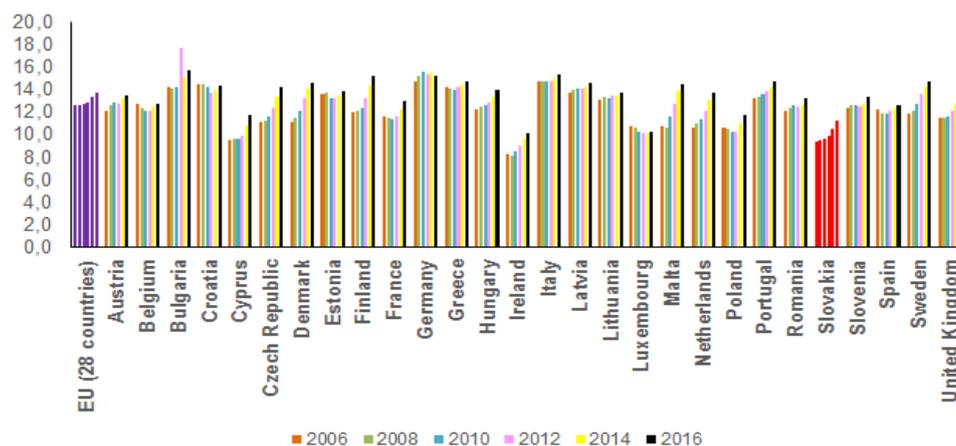


Figure 3. The percentage share of population aged 65 - 79 in individual EU Member States

Source: Statistical Office of the Slovak Republic, own processing

In 2006, this population of the EU (28 countries) constituted 18.2% and in 2016 it was 20.1% (the increase was 10.44%). An even more pronounced increase can be observed in the Slovak Republic, when in 2016, compared to 2006, the share of this population increased by 13.97%.

The 65 - 79 age group is represent the population in retirement age. Within the EU 28, this group of people made 13% on average (Figure 3). Also in this group, it is possible to monitor the annual increase in the share of this group in the population, although slower (increase in 2016 compared to 2006 was 5.5%) compared with the age group 50-64 years. In the Slovak Republic, the share of this age group grew faster than the EU average (an increase was 11.7%).

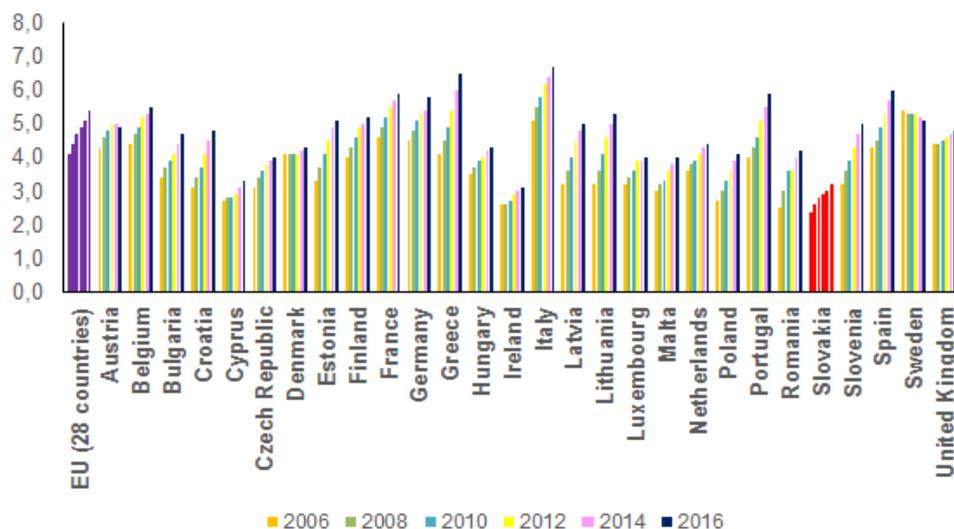


Figure 4. The percentage share of population aged 80+ on the total population of EU

Source: Statistical Office of the Slovak Republic, own processing

The smallest share of the total population represents age group 80+. The EU 28 average is at 4.7% (Figure 4). In countries such as France, Germany, Greece, Italy, Portugal and Spain, the share of this age group is higher than that average of the EU. On the contrary, this age group in the Slovak Republic ranges below the EU average throughout the monitored period, although we see an annually increase in this group (increase in 2016 comparison with 2006 it was even 33.3%).

Despite the fact, that a big part of the population aged 50 - 80+ is already before retirement, respectively in retirement age, many of them are still economically active. This is also confirmed by Figure 5, which shows the number of economically active population in selected age groups of the population in Slovak Republic.

The most group of economically active population in selected age groups was in the age group 45 - 59 years old. On the contrary, the smallest group of economically active population represents the people over 75 years old (Figure 5). This group of population was in the range of 0.3 - 1.5 thousand people. Despite the fact, that in the age group 60 - 74 years old, the majority of people is in retirement age (retirement age in Slovakia is 62) are still economically active.

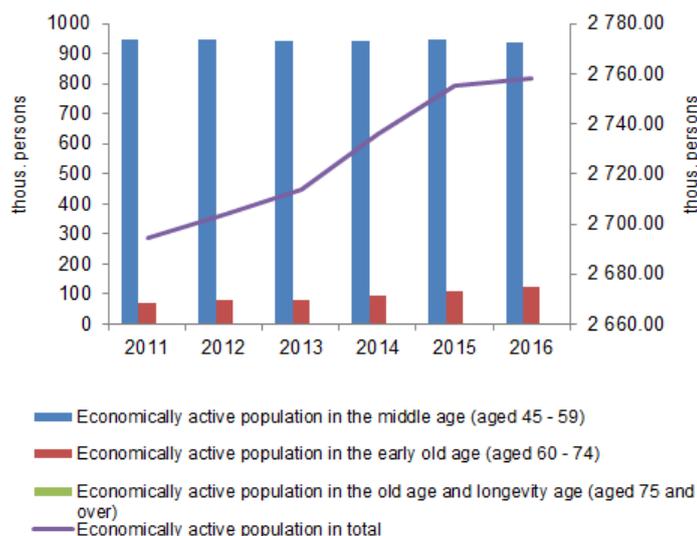


Figure 5. The economically active population in selected age groups and the total number of economically active population in the Slovak Republic

Source: Statistical Office of the Slovak Republic, own processing

The share of the economically active population aged 45-49 during the reference period was on average 35% of the total number of economically active population. During the reference period, the number of economically active population in the middle age (45 - 49) showed a fluctuating trend (Figure 6).

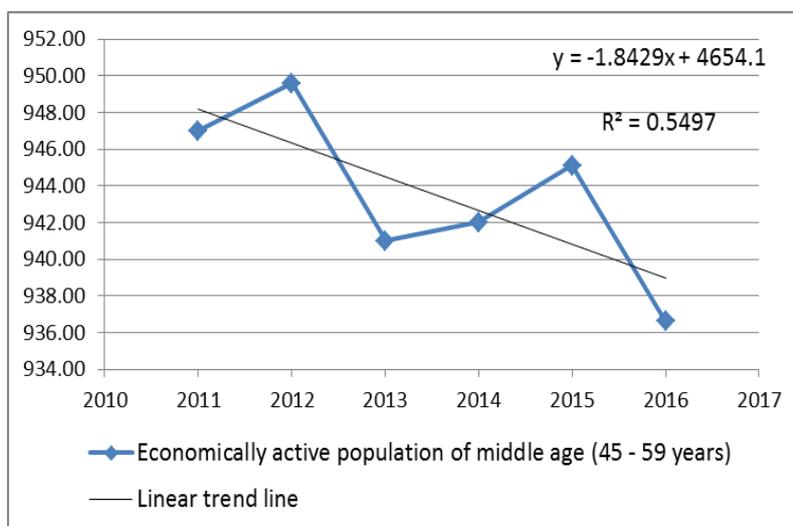


Figure 6. Development of number and trend of economically active population aged 45 - 59 in the Slovak Republic

Source: Statistical Office of the SR, own processing

In the period 2011 - 2012, the number of this economically active population in this group increased, but we are already seeing a decrease of 0.91% in 2013 as compared to the previous year. In the next two years, we are seeing an increase of the number of economically active population in this age group, but we are seeing a further decline in 2016. Based on the decreasing linear trend, we expect a decline in the number of economically active population in this age category over the coming period.

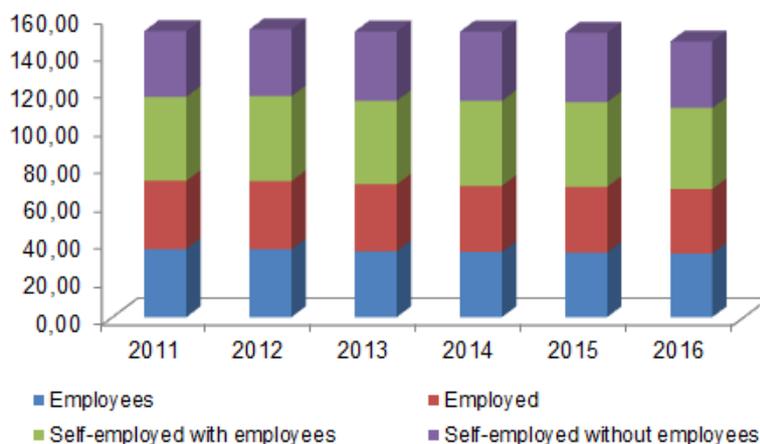


Figure 7. The share of population in the age 45-59 on the labor market in the Slovak Republic

Source: Statistical Office of the SR, own processing

In the age group 45 - 49, the biggest share of the labor market is represented the self – employed with employees (in the average is it 40.0%). Almost the same share create employees and employed (in the average is it 35%). Such a breakdown of this age group on the labor market is due to the fact, that in this category of population, despite the fact, that this group represents people in the middle age, they are still before the retirement age (Figure 7).



Figure 8. The share of population in the age 60-74 on the labor market in the Slovak Republic

Source: Statistical Office of the SR, own processing

Another situation can be observed in the age group 60 - 74 (Figure 8). In the labor market they are most represented as the self – employed with employees. Other working groups are represented almost equally (on average 3%).

Within the age group 75+, the majority group on the labor market represent self – employed without employees (Figure 9). Other work groups are represented to a lesser extent. It is only in 2015 that we have been register that this age group has worked as the self – employed with employees



Figure 9. The share of population in the age 75+ on the labor market in the Slovak Republic

Source: Statistical Office of the SR, own processing

Conclusion

Within EU countries, we see an annual increase in the population in all analyzed categories (50 - 64, 65 - 79 and 80+). As a result of the specific situation of the these age groups on the labor market, it emerged from analyzes that despite the fact that people of this age are already mostly retired, they are involved in the work process mainly as self - employed with or without employees, to a lesser extent than employees. The reasons why these age groups still work is on the one hand the aging of the population and is related with the insufficient number of young people on the labor market and; on the other hand, it is connected with the weaker social security of the elderly population. Job opportunities represent the option of improving retirement. Even for employers they are better employees, because if they employ pensioners have lower labor costs.

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THE ANALYSIS OF FACTORS AFFECTING CRUDE OIL PRICES

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Abstract: Energy is the prime mover of economic growth and vital to the sustenance of the modern economy. Future economic growth crucially depends on the long-term availability of energy from sources that are affordable, accessible and environmentally friendly. Our paper analyses the three groups of factors that can affect crude oil price changes. These fluctuations have a great impact on the economy and people's lives to a great extent. By using the method of document analysis, we present the supply and demand of oil in some OPEC and non-OPEC countries. Finally, we concluded that while current oil consumption is primarily related to current economic activity, changes in the outlook for future economic conditions may also have an immediate impact on oil prices.

Keywords: efficiency, fluctuation, global crisis, oil price changes, OPEC, supply and demand, sustainability

Introduction

Efficient, reliable and competitively priced energy supplies are prerequisites for accelerating economic growth. For any country, the strategy to obtain and meet the energy requirements and energy developments are the integral part of the overall economic strategy. Efficient use of resources and long-term sustainability in its utilization is of prime importance for economic development. Sustainability would take into account not only available natural resources but also to take care of the related ecological and social aspects to meet the priority needs of the economy. Simultaneous and concurrent action is, therefore, necessary to ensure that the short-term concerns do not detract the economy away from the long-term goals.

Factors driving crude oil prices are a broad topic and subject of many independent studies.

Material and methods

In the first section of our paper we give a brief overview of literature on the different theories of the factors influencing crude oil price changes. During our research international works have been used and analysis was carried out by means of scientific books and articles. In order to have deeper insight into the economy and the repercussion of oil price changes, statistical data were also collected and analysed. Contextual indicators are also used for presenting a broader picture. The majority of the data was collected from the database of Energy Information Administration and from the Organization of the Petroleum Exporting Countries.

The aim of our paper is to give an overview of current oil price changes and explain the reasons behind the changes with special regards with OPEC and non OPEC supply.

Literature review

In this section we discuss three groups of factors affecting crude oil prices, which are most frequently mentioned in literature. This particular classification is borrowed from Fan - Xu (2011), but the same factors are discussed by many authors, often with emphasis to just one or two of them.

According to Fan-Xu (2011), main drivers of crude oil price are:

- Supply-demand fundamentals, or commodity attribute of crude oil
- Speculation, or financial attribute of crude oil
- Extreme events, or political attribute of crude oil

Most researchers agree that the role of those factors was changing over time, i.e. there were some structural breaks in crude oil price development. However, there is no consensus among authors on specific input of each factor, which causes especially intense debate about reasons for high volatility of oil prices in recent years. For example, Masters (2008), Cifarelli-Paladino (2009) and some others argue that speculative attacks had the key role in crude oil price development since 2000. The analysis

of Hamilton (2008) revealed that price increases were caused by strong global demand and that speculation alone is not sufficient to explain rapid growth in oil prices. Supply side changes are the subject of interest of Kaufmann (2011).

In any case, single factor can hardly explain crude oil price development and especially high volatility in recent years. With evolution of financial markets driving mechanism has become more complex. Moreover, we should keep in mind that different factors are responsible for long-term trend and short-term price speculations. For better understanding, let us review each group of factors in more details.

Results and discussion

Supply-demand fundamentals

According to many researchers, supply-demand relationship was the main factor driving oil volatility in 20th century. After Gulf War finished in 1991, prices of oil were relatively stable for some time, fluctuating around 20\$ per barrel. Small decline caused by Asian economic crisis took place in 1997-1999, but after US economy recovered from 9/11 attacks in 2001, price of oil started to increase dramatically. Initially this growth in prices was also attributed to fundamental factors such as OPEC cuts in production in combination with rise in demand. Global demand was indeed steadily growing in both developed and developing countries. For example, according to EIA, China showed growth in oil demand of 15% in 2004. However, according to the same source, global world growth in consumption was gradual throughout the whole examined period and was not exceeding the growth in production. Kaufmann (2011) highlights that even though the volume of production was not changing dramatically, the increase of oil prices could still be caused by supply side fundamentals. Non-OPEC nations are usually seen as price takers in oil production, and on the contrary OPEC nations are following some form of strategic behaviour. This means that sudden change in the market share of OPEC producers could generate a supply shock. According to Kaufmann (2011) this is exactly what happened in 2004, when a decade period of fast steady growth in non-OPEC production was over and was compensated by growth in OPEC production.

Non-OPEC supply

Oil production from countries outside the Organization of the Petroleum Exporting Countries (OPEC) currently represents about 60 percent of world oil production. Key centres of non-OPEC production include North America, regions of the former Soviet Union, and the North Sea.

Figure 1 shows that net increases in non-OPEC production were very small from 2005 to 2008. This lack of additional supplies from non-OPEC countries contributed to tighter markets in this period.

In contrast to OPEC oil production, which is subject to central coordination, non-OPEC producers make independent decisions about oil production. Also, in contrast to OPEC, where oil production is mostly in the hands of national oil companies (NOCs), international or investor-owned oil companies (IOCs) perform most of the production activities in non-OPEC countries. IOCs seek primarily to increase shareholder value and make investment decisions based on economic factors. While some NOCs operate in a similar manner as IOCs, many have additional objectives such as providing employment, infrastructure, or revenue that impact their country in a broader sense. As a result, non-OPEC investment, and thus future supply capability, tends to respond more readily to changes strictly in market conditions.

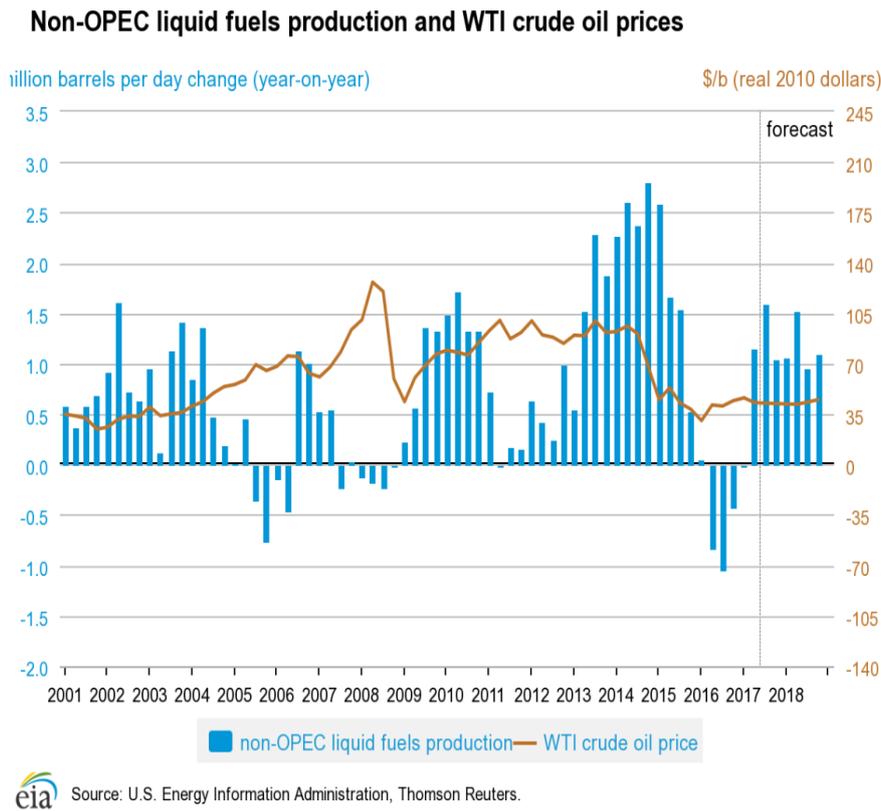


Figure 1 Changes in non-OPEC production can affect oil prices

Source: EIA, 2017

As it was mentioned earlier producers in non-OPEC countries are generally regarded as price takers, that is, they respond to market prices rather than attempt to influence prices by managing production. As a result, non-OPEC producers tend to produce at or near full capacity and so have little spare capacity. Other things being equal, lower levels of non-OPEC supply tend to put upward pressure on prices by decreasing total global supply and increasing the "call on OPEC." The greater the call on OPEC, the greater is its likely ability to influence prices.

In Figure 2, WTI price levels are graphed with world GDP growth rates (as an indicator of global oil demand growth) and quarterly changes in world capacity, defined as OPEC capacity plus non-OPEC production (as an indicator of global oil supply growth). From 2005 to 2008, economic growth remained strong while oil production capacity grew slowly and even declined in some quarters. The tight market conditions put upward pressure on oil prices.

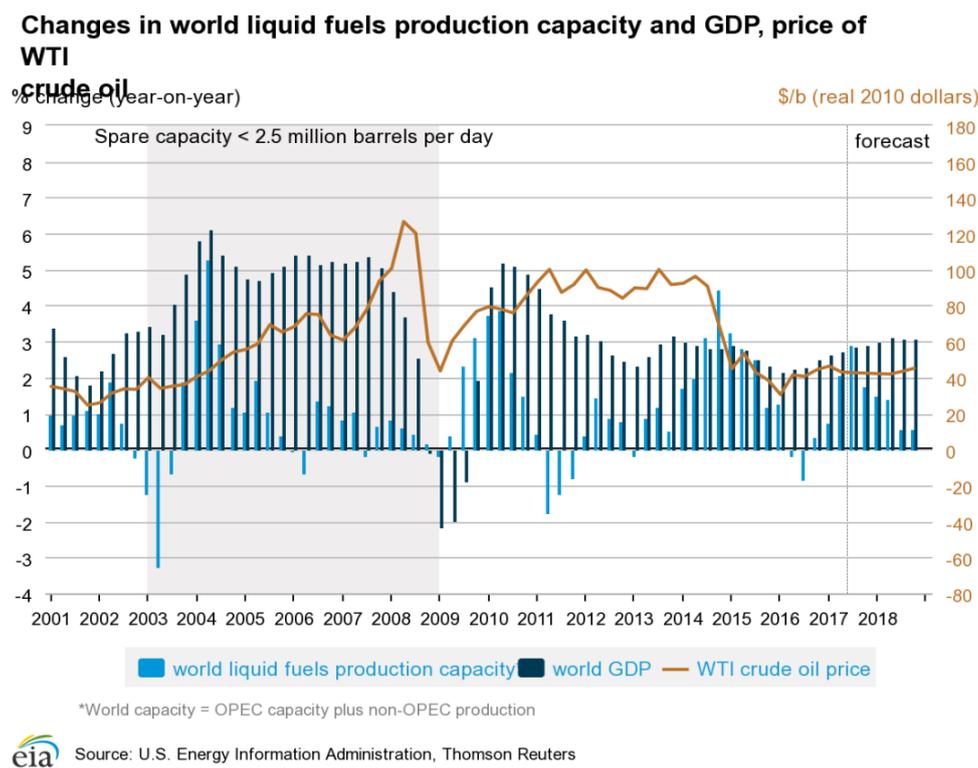


Figure 2 The years 2003-2008 experienced periods of very strong economic and oil demand growth, slow supply growth and tight spare capacity

Source: EIA, 2017

Non-OPEC production occurs largely in areas that have relatively high finding and production costs, as most of the lower cost conventional oil resources are in OPEC member countries. Non-OPEC producers have therefore led the way into frontier areas such as the deepwater offshore, and pursued unconventional sources such as oil sands. As a result, non-OPEC production usually has a cost disadvantage compared to OPEC production.

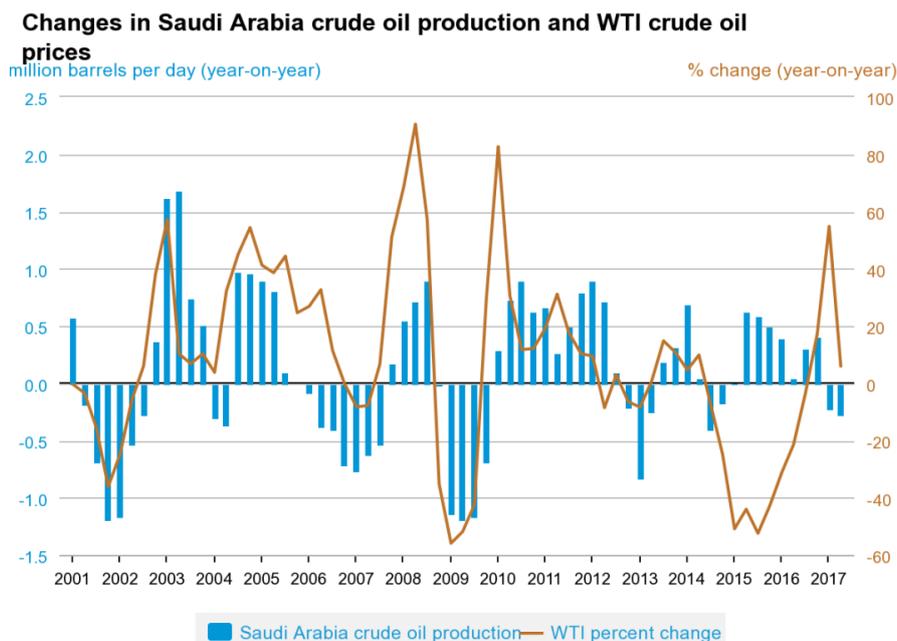
Non-OPEC producers have often led in developing new production technology. While this has sometimes resulted in the development of higher-cost supplies, costs often fall as technology advances, which can ultimately put downward pressure on prices.

OPEC Supply

Crude oil production by the Organization of the Petroleum Exporting Countries (OPEC) is an important factor that affects oil prices. This organization seeks to actively manage oil production in its member countries by setting production targets. Historically, crude oil prices have seen increases in times when OPEC production targets are reduced.

OPEC member countries produce about 40 percent of the world's crude oil. Equally important to global prices, OPEC's oil exports represent about 60 percent of the total petroleum traded internationally. Because of this market share, OPEC's actions can, and do, influence international oil prices. In particular, indications of changes in crude oil production from Saudi Arabia, OPEC's largest producer, frequently affect oil prices. Figure 3 shows how projections of changes in Saudi Arabia crude oil production results in changes in WTI crude oil prices.

The extent to which OPEC member countries utilize their available production capacity is often used as an indicator of the tightness of global oil markets, as well as an indicator of the extent to which OPEC is exerting upward influence on prices. EIA defines spare capacity as the volume of production that can be brought on within 30 days and sustained for at least 90 days. Saudi Arabia, the largest oil producer within OPEC and the world's largest oil exporter, historically has had the greatest spare capacity. Saudi Arabia has usually kept more than 1.5 - 2 million barrels per day of spare capacity on hand for market management.



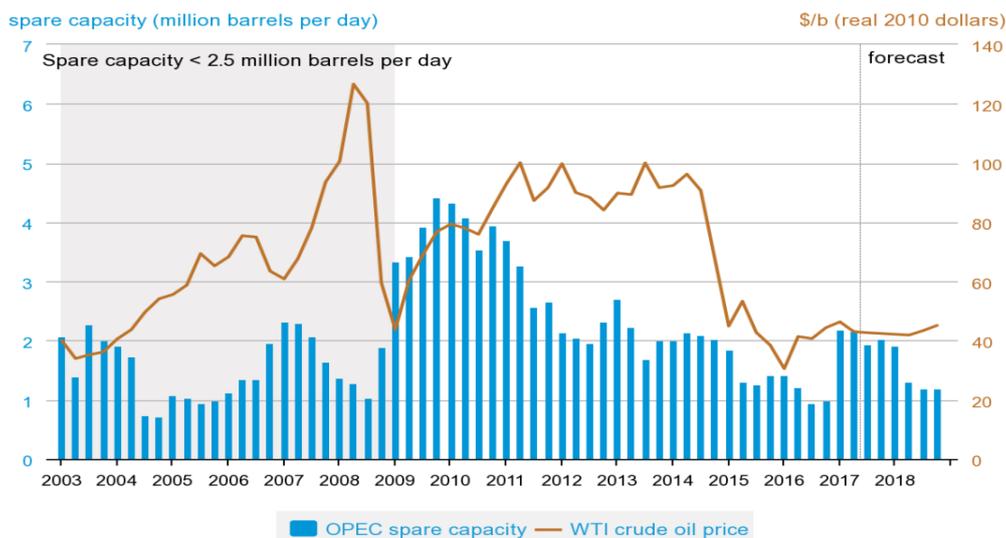
Source: U.S. Energy Information Administration, Thomson Reuters

Figure 3 Changes in Saudi Arabia crude oil production can affect oil prices

Source: EIA

OPEC spare capacity provides an indicator of the world oil market's ability to respond to potential crises that reduce oil supplies. As a result, oil prices tend to incorporate a rising risk premium when OPEC spare capacity reaches low levels. From 2003 through 2008, OPEC's total spare capacity remained near or below 2 million barrels per day (or less than 3 percent of global supply), which provided very little cushion for fluctuations in supply in a context of rapidly rising demand. Markets are influenced by geopolitical events within and between OPEC countries because they have, historically, resulted in reductions in oil production. Given OPEC's market significance, events that entail an actual or future potential loss of oil supplies can produce strong reactions in oil prices (Figure 4).

OPEC spare production capacity and WTI crude oil prices



Source: U.S. Energy Information Administration, Thomson Reuters

Figure 4 OPEC's spare production levels (2003-2018)

Source: EIA

Conclusion

Structural conditions in each country's economy further influence the relationship between oil prices and economic growth. Developing countries tend to have a greater proportion of their economies in manufacturing industries, which are more energy intensive than service industries. Although transportation oil use is usually a smaller share of total oil consumption in non-OECD countries, this use tends to increase rapidly as expanding economies increase the need to move goods and people. Vehicle ownership per capita is also highly correlated with rising incomes and has much room to grow in non-OECD countries. For these reasons, non-OECD economic growth rates tend to be an important factor affecting oil prices. China's strong economic growth has recently resulted in that country becoming the largest energy consumer and second largest oil consumer in the world. In addition, China's rising oil consumption has been a major contributor to incremental growth in worldwide oil consumption. EIA projects that virtually all the net increase in oil consumption in the next 25 years will come from non-OECD countries.

Although oil use is clearly tied to economic activity, energy policies also significantly affect that relationship. While current oil consumption is primarily related to current economic activity, changes in the outlook for future economic conditions can also have an immediate impact on oil prices. For example, an improvement in the economic outlook would tend to increase the chance that oil markets will tighten in the future, resulting in higher expected future oil prices. This change in expectations would be reflected in higher oil futures prices. This rise in futures prices increases the incentive to hold inventories, which in turn decreases available current supply and tends to raise current prices.

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ABILITY AND ORIENTATION OF IMPLEMENTING INTERNATIONAL FINANCIAL REPORTING STANDARDS IN VIETNAM

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Abstract: The International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) have been rapidly adopted in the world. Besides, the rapid growth of the Vietnamese economy in recent years has led to the necessity of applying IFRS to conform with international accounting and the globalization trend of the world economy. The adoption of IFRS in the preparation and presentation of financial statements has been providing many benefits, but also faces certain challenges; therefore, Vietnam must have the appropriate and timely orientation plan to apply IFRS. The purpose of this article is to outline the benefits, challenges, and conditions from the IFRS adopted countries. Based on the specific situation, characteristics and conditions of the Vietnamese economy, this article also proposes reasonable directions for the application of IFRS in Vietnam.

Keywords: Vietnamese Accounting Standards (VAS), international convergence, International Financial Reporting Standards (IFRS)

Introduction

IFRS issued by the International Accounting Standards Board (IASB) has been rapidly adopted in the world. Organizations that have an essential impact on the world economy, such as the G20, the World Bank (WB), the International Monetary Fund (IMF), the Financial Stability Board (FSB), the International Organisation of Securities Commissions (IOSCO) encourage and support the application of IFRS globally. Approximately 120 nations and reporting jurisdictions allow or require IFRS for domestic listed companies, although about 90 countries have fully complied with IFRS as promulgated by the IASB. The adoption of IFRS brings numerous benefits such as increasing the reliability, transparency, and comparability of financial statements, reducing the cost of capital mobilization. IFRS also helps businesses and markets to operate more efficiently by having a consistent and global standard that could be applied to both developed and emerging economies.

Vietnam plans to adopt IFRS instead of the current Vietnamese accounting standards (VAS) by 2025 in its efforts to enhance comparability and improve transparency. The adoption of IFRS in the preparation and presentation of financial statements has been providing many benefits but also faces specific challenges. The article will outline the characteristics of IFRS, the benefits, and challenges of countries that have adopted IFRS. The article then describes the situation, and conditions of Vietnam and suggests appropriate directions for applying IFRS in Vietnam.

Methodology

The article uses the Archival Research method to conduct research. Research data includes studies on IFRS in emerging countries, studies and opinions of IFRS experts in Vietnam.

Overview of economic theories on harmonization and convergence

Agency Theory

Agency theory emerged in the 1970s. In the primitive form, the study identified asymmetric information problems between owners (called the principal) and managers (called the agent) in the insurance industry (Spence and Zeckhauser, 1971; Ross, 1973). It is quickly applied to many issues related to the representative contract between the principal and the agent to operate the business (Jensen and Meckling, 1976; Harris and Raviv, 1978). The financial statement is prepared and published by the agent. The transparency, comparability of financial statements affects the ability to attract investment capital into enterprises. In fact, the principal always wants to raise more capital hence they always want to increase the comparability and transparency of financial statements. An effective method is that the agent is required to prepare and publish a financial statement following IFRS.

The theory of accounting harmonization, accounting standardization, and accounting convergence

Harmonisation is coordination, a tuning of two or more objects (Van der Tas, 1988). Harmonization (a process) is a movement away from the total diversity of practice. Standardization (a process) is a movement towards uniformity (a state). Harmony and uniformity are therefore not dichotomous (Tay & Parker, 1990). Harmonization includes harmonization in principle and rules; in accounting standards; in making and presenting the financial report.

Standardization is described as a period of uniformity or near uniformity. Standardization embraces both harmonization and normalization. The main reason is that standardization implies the adoption of a unique set of accounting rules, with a universal application (Barbu, 2004).

Convergence is the process of moving toward a point, especially the movement toward uniformity. The process of convergence with international accounting standards (IAS) is also the standardization process. Harmonization and convergence are different stages of the accounting globalization (Qu & Zhang, 2008).

The decision-usefulness theory

The decision-usefulness theory (1966) is the standard accounting theory used as a grounding theory to build IFRS and accounting standards of many countries. This theory emphasizes the basic function of the financial report is to provide useful and appropriate information for economic decision-makers. The decision-usefulness theory also refers to the concept of cost-benefit balance, which is an important aspect to consider when establishing accounting standards (Godfrey et al., 2003).

Theories of the national accounting diversity

Many factors lead to differences in the accounting system of each country, which are categorized into four main categories: economic, legal, cultural and political. Therefore, when each nation adopts IFRS, it is necessary to consider its political, economic, cultural and legal implications.

Overview of IFRS studies

Vietnamese studies

In Vietnam, there are many studies on the harmonization and convergence of Vietnam accounting system with IFRS. The studies conducted by Pham Hoai Huong (2010), Nguyen Thi Lien Huong (2010), Pham et al. (2011), Nguyen & Gong (2012) and Tran Hong Van (2014) show that the level of harmonization between VAS and IFRS is relatively high. But there are still some obstacles.

The process of accounting innovation in Vietnam to meet the trend of international accounting integration will have many defects and obstacles. Micheline & Nguyen (2007) argue that the reliability and usefulness of information are not high and this is a barrier to international harmonization. Nguyen & Richard (2011) and Nguyen & Tran (2012) show the inadequacies of Vietnamese accounting in the parallel existence of the accounting standards system with the traditional accounting regulations and this causes difficulties for the process accounting convergence of Vietnam. Nguyen et al. (2012) argue that the Vietnamese accounting system approaching on the basis of strict regulations is a barrier to international harmonization.

There are many proposals on accounting convergence in Vietnam. Vu Huu Duc and Quoc Viet (2008) propose a strategy for the international integration of accounting in Vietnam, which suggests the application of International Financial Reporting Standards for listed companies, public companies and other types of sensitive businesses to public interests such as banking, insurance. The remaining company will be exempt from some requirements of the International Financial Reporting Standards. Quoc Viet (2009) presents suggestions such as setting up a new mechanism for the Vietnamese accounting system as well as improving the VAS. Pham Thi Thanh Ha (2009) introduces some accounting orientations in Vietnam in the process of converting international accounting. Accordingly, in the short term, the regulators need to add some accounting standards that are consistent with Vietnamese practice and issue standards consistent with IFRS as well as following Vietnamese characteristics. In the long term, the Vietnamese accounting requires a transitional period to unify the VAS and IFRS.

These studies have evaluated the current situation and proposed solutions to improve the usefulness of Vietnam's financial reporting system, based on application and harmonization with international financial reporting standards. However, the limitation in consolidating the scientific foundation and experience for the issuance of accounting standards and regimes, regulations on the evaluation of the quality of financial reports based on the application of accounting principles and international practices is not explicit.

Long-term solutions and roadmap for the development and integration of financial reporting systems have not been outlined. Studies have not mentioned or addressed the current global issues in preparing and presenting financial statements, such as the use of fair value in valuation, presentation of knowledge resources or social responsibility of the enterprise on the financial report.

Studies on the benefits and factors affecting the harmonization, convergence, and preparation of IFRS

Applying IFRS will bring tremendous benefits. Christensen et al. (2008) indicate that voluntary adoption of IFRS is associated with decreased earnings management and more timely loss recognition from German companies. The study by Lee & Fargher (2010) shows the relationship between the adoption of international financial reporting standards and the increase in multinational investment by Australian investors. Armstrong et al. (2010) conclude that investors expect convergence to improve information quality, reduce information asymmetry, enhance compliance. Francis et al. (2012) find that accountant harmony reduced the cost of information, promoted mergers and acquisitions in countries with similar accounting systems. Research in Southeast Asian countries, Mahesh Joshi and Prem Yapa (2016) point out that professional accounting, media, and government in Singapore, Malaysia, and Indonesia strongly supported the implementing IFRS because there are many economic benefits from harmonizing with international accounting standards.

Accounting harmonization has many influencing factors. According to Rahman et al. (2002), accounting harmonization should be considered in four important respects, that is, the influences, process, output, and outcome. The influences refer to the factors that have an impact on accounting practice harmonization (i.e., accounting regulation harmonization and other factors such as environmental factors and firm characteristics). The process refers to the actual steps taken by firms that may lead to the reduction of differences in accounting practices of two or more countries leading to a certain state of harmony (i.e., the similarity in practices). The output refers to the product of the level of harmony at a point in time (i.e., comparable accounting information). Finally, the outcome refers to the consequences of harmonization (e.g., better capital market decisions).

The preparation process for implementing IFRS should also take into account many factors. The study by Merve Kiliç et al. (2016) on factors influencing the preparation for IFRS application of small and medium enterprises in Turkey indicates that the company characteristics such as scale, independent auditing, internationality have an impact on the preparation of IFRS application for small and medium enterprises.

Studies on the conditions and orientations of IFRS application

Each country should consider the appropriate conditions and directions for adopting IFRS. Ball (2006) explains that using fair value in IFRS is a problem for many countries. Many countries do not accept the complexity of fair value measurements. In spite of the increasingly intense globalization, the stock market and the legal system are still dependent on the characteristics of each country while the IFRS implementation is not compulsory.

Lasmin (2011) argues that convergence requires more time and effort than compliance. This is especially true for developing countries.

Ramanna (2011) shows that each country has different IFRS harmonization strategies based on its political position. Nations with strong political positions will seek to influence the IASB to benefit them.

Ehoff & Fischer (2013) argue that the full application of IFRS may cause the relevant regulator to be unable to control financial instruments and not be able to protect investors.

Abdulaziz Alzeban (2016) investigate the challenges faced by accounting educators in their efforts to organize IFRS materials in their teaching and examines the impact of various factors (lecturer's

attitude, volume of accounting department, teaching obligation, type of institution, teaching experience and teaching materials) on the time spent on teaching IFRS materials in undergraduate accounting schedules. The results indicate that the lecturer's attitude and the available IFRS materials affect the most instructor's time spent with IFRS. Besides, faculty support and IFRS training experience also have a positive impact on IFRS teaching time.

Discussion on the implementation of IFRS in Vietnam

The necessity of implementing IFRS in Vietnam

According to the studies mentioned above, the implementation of IFRS brings significant benefits to countries and businesses, including developed countries and countries that are restructuring the economy. Vietnam is restructuring the economy; therefore, Vietnam will have many benefits from implementing IFRS.

Vietnam is now integrating into the global economy with the participation of the Trans-Pacific Partnership (TPP) and the ASEAN Economic Community (AEC). It has been proven that the implementation of IFRS will improve the transparency and reliability of the information provided by listed companies and the stock market, which will help increase the reliance of domestic and foreign investors. Therefore, the requirement of harmonizing Vietnamese accounting with international accounting is an indispensable requirement. On the other hand, "Vietnam Accounting-Audit Development Strategy up to 2020, vision to 2030" affirmed Vietnam's determination to apply IFRS. These are the preparatory steps to apply IFRS in Vietnam progressively.

Conditions and orientations for implementing IFRS in Vietnam

Currently, many countries are reviewing ten years of IFRS implementation from 2005 to 2014; meanwhile, Vietnam is about to start applying, although not entirely, a part of IFRS. From 2001 to 2005, the Ministry of Finance issued 26 Vietnamese accounting standards. According to Decision 480 / QĐ-TTg dated March 18, 2013, these standards will be amended to harmonize with international standards and from 2016 to 2020, new accounting standards will be issued.

In Vietnam, according to Deloitte Vietnam, most companies are applying VAS in the preparation of the statutory financial report, only a few foreign-invested companies or companies listed on the international market implement IFRS to make the financial report. The application of IFRS is still tricky in Vietnam for many reasons

- Financial instruments, business integration, share-based payment, the decrease of assets value are much debated when applying IFRS;
- The application of IFRS requires accountants to use principle-based accounting while they are using rule-based accounting.
- IFRS aims to value the assets by using fair value rather than historical cost. Therefore, IFRS has been synchronized and developed in the market. Meanwhile, the VAS is made based on the International Accounting Standards (IAS), which is using historical cost. Many accounting experts believe that using fair value measurement is very difficult to implement in Vietnam because the Vietnamese market is unclear and unstable.
- Lack of resources to implement IFRS on a large scale is a significant disadvantage. In fact, many Vietnamese companies have successfully applied IFRS. However, to apply IFRS on a large scale will require a substantial investment in resources. These resources include both human and financial resources.

In 2015, The Vietnamese National Assembly promulgated the Accounting Law 2015 and introduced the concept of fair value measurement, which is an essential precondition for Vietnam to apply IFRS soon. In the period 2018 - 2019, Vietnam will implement IFRS for all listed companies on the stock exchange. To successfully implement IFRS, Vietnam could consider the following measures:

- Firstly, having a specific roadmap to implement IFRS. Vietnam should adopt IFRS step by step to suit the economic conditions, foreign language ability, labor market level and the development of Vietnam stock market before full implementation. With this model, Vietnam can simultaneously implement two standard systems: IFRS and VAS. This policy orientation is very reasonable as the Vietnamese market is not fully developed.

- Secondly, enhancing the role of accounting and auditing associations. Implementing IFRS is not a simple and very important issue. Therefore, Vietnam should have the consultancy and support from accounting and auditing associations. They can provide material, training or technical support in the process of applying IFRS. With experience in the global adoption of IFRS, some international organizations and auditing firms could assist the Ministry of Finance in making the roadmap and implementing IFRS in Vietnam. At the same time, they can advise and support businesses in applying IFRS for preparing financial statements.
- Thirdly, improving the quality of accounting training. One of the crucial reasons Vietnam does not fit into other convergence models is the limited capacity of accountants. In fact, most universities do not introduce IFRS in the curriculum. In addition, the foreign language ability of students has not met the requirements of international integration. Therefore, if Vietnam wants to implement IFRS successfully, they should pay more attention to training human resources.

Conclusion

Implementing IFRS brings benefits to countries and businesses such as increased capital mobilization, increased transparency, and improved financial information comparability. Vietnam is a developing country, is restructuring its economy and wants to integrate deeply into the global economy; therefore the IFRS implementation is necessary. The IFRS implementation is also challenging and requires the efforts of the Vietnamese government, businesses, and universities. To successfully apply IFRS, Vietnam should focus on three main directions: having a specific roadmap to step by step implement IFRS; enhancing the role of accounting and auditing associations and improving the quality of accounting training.

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STANDARDIZATION OF THE COORDINATION PROCESS IN CLUSTERS FROM THE PERSPECTIVE OF THE SERVANT LEADERSHIP CONCEPT

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Abstract: The article presents the characteristics of the coordination process in clusters in light of contemporary management concepts. In order to fully describe the phenomenon, we identified the main areas of its standardization based on industry reports. Recognizing the specific character of these areas, we proposed their interpretation in the convention of servant leadership, concluding that the coordination process in clusters should be of a service nature. The added value of this analysis is the discussion of the results carried out in the convention of the PMI technique developed by E. Bono.

Keywords: clusters, coordination, management, servant leadership, standards

Introduction

The functioning and development of cluster structures has become a key issue supported by the EU perspective for 2014-2020. Studies in cluster structures conducted both in Poland and in Europe Innobarometer 2006 (European Commission, 2006) have revealed that the structures that exist within clusters support innovation. The report by NGP Excellence clusters (2011) acknowledge that cluster and network organizations, including cluster support programs contribute to employee efficiency and economic growth. The main objective of the cluster policy in the new financial perspective for 2014-2020 is to strengthen both the innovativeness and competitiveness of the Polish economy, based on intensified co-operation, interactions and flux of knowledge within clusters and to support the development of strategic economic specialization through national and regional key clusters, initiated by the Polish Agency for Enterprise Development (PARP) in response to the identified issue of poor management in clusters in Poland as well as the lack of any systemic approach to the training of professional coordinators, that are of crucial significance for the success of clusters and efficiency of public interventions (Grzebyk 2009). The concept of cluster management standards has evolved (Standardy zarządzania klastrem 2015, 2016) containing detailed guidelines spelling out the desired features of cluster management, taking account of best Polish and foreign practices, amongst others. There is, in current reports, lack of theoretical framework as well as allocation of the proposed concept in the proper mainstream of management studies, especially in aspects concerning knowledge development.

In the light of these considerations, the article aims to illustrate the phenomenon of cluster coordination referring to selected management theories as well as expound its standards from the perspective of the theory of servant leadership.

It is assumed in the foregoing considerations that a coordination process is understood as a synonym for cluster management, while its specificity is related to the role played by cluster coordinators often perceived as managing entities.

Features of the cluster coordination phenomenon in view of servant leadership concept

The concept of coordination exists in the classical school of management studies, where F. Fayol presented coordination as one of those functions initially identified as a managerial activity. The process was, however, not given much attention in knowledge development, assuming it to be a complex phenomenon connected with the activities of result-oriented managers, hence its disappearance in favour of others such as planning, organizing, motivation or controlling.

It is worth citing a few definitions for a better understanding of the coordination phenomenon. The Business Dictionary (2014) defines *coordination* as the synchronization and integration of activities, duties as well as command and control structures to ensure that resources are most effectively put to use in pursuit of the organization's specific goals. The Management Study Guide designed by MSG Experts team (India) explains *coordination* as the unification, integration and synchronization of efforts of group members to ensure unison in actions in pursuit of their common goals. T. Pszczołowski (1982) perceives the essence of coordination as the informing of members engaged in a cause-effect relationship. A. Stabryła and J. Trzecieński (1986), on the other hand, defines coordination as an activity involving the incorporation factors necessary for the achievement of intended outcomes, in appropriate quality, quantity and timing. This applies both to the creation, operation and development of the system and constitutes an essential component of the organizing function, while serving as a factor that links all management functions into a single complex process. Machaczka J. (2001) defines coordination as ascribing the right size to things and issues as well as the adaptation of means to objectives. Gościński J (1971) has understood coordination as a set of activities (decisions) undertaken at all levels of the management structure, especially by the system's management to ensure a harmonious coexistence of subsystems in order to achieve objectives set for the entire system.

The definitions put forward, herein, attest to the complexity of the concept of coordination, listing its basic aspects such as cooperation, integration, goal-orientation, unification, unity of purpose and synchronization. These concepts, however, do define the essence of the coordination process without specifying neither the features of a coordinator – the entity that implements them nor the constituents of the coordination process. These are aspects that identify the essence of the coordination process, that can be referred to as servitude and subsidiarity in common activities. The combination of such attitudes with supervisory functions, the primary task of a cluster coordinator is justified in the concept of servant leadership – a management concept that promotes subsidiarity and support.

The terminology „servant leadership” that was defined in literature for the first time by R.K. Greenleaf in his publication "The Servant as Leader" (1970) meant that the leadership process identified through the prism of help, support and offering of support was gaining in significance. In the first instance, the premise of action is the support for what is being led, while in the second place is the boss, leader and coordinator. Analysis of the tasks of the coordinator reveals it as a process or activity that concerns offering support for the subordinate by the superior, which conforms with the assumptions of the servant leadership concept. C. Spears (2010) in the article *Character and Servant Leadership: Ten Characteristics of Effective, Caring Leaders* lists the basic attributes of the servant leadership style. These include: listening, empathy, help/support, explaining with the use of substantive arguments, purpose awareness, ideas for action, prospects for the future being involved in human development, commitment to meeting the needs of others, community development- network of co-operation. All of the above-mentioned features are significant from the perspective of coordinating cluster structures.

Coordination as a process consists of key components, which were identified in studies and described in PARP reports: Standardy zarządzania klastrem (2015, 2016). First, an unstructured list of the most important functions performed by cluster coordinators was developed. The set of tasks listed concerns the coordination of internal and external co-operation in a network structure that translates into initiating, developing, monitoring and controlling processes, especially in organizing cluster activities, care for resources as well as implementation of processes related to internal communication and development.

Methodology of the research

The article is a theoretical concept, in which the Induction method was used for analysis (from detail to the general). Methodology consists of three stages. . The first is the analysis of the phenomenon of coordination in clusters in terms of its essence and identification of elements. For this purpose. The results of the research carried out in 2014-2015 by PARP were analyzed. This report was based on case studies (Piotrowski 2014) and the benchmarking analysis (Plawgo 2014). The analyses were concluded with the identification of 5 key areas that make up the process of coordination in clusters such as: organization (elements of organization, strategy of operation); resources (financial,

infrastructure, human resource and know-how); processes (marketing and public relations, internal communication, cluster development, sustainable development) cluster-centered services (external financing, R&D activities, market activities, networking, human capital development, internationalization); cooperation with the local community (w local government authorities, scientific institutions, with other clusters, recognition of cluster achievements). The next stage of the analysis was to compare the characteristics of areas indicated in the PARP report with the basic elements of the concept of servant leadership. The third stage of the research was to submit the verification results that were carried out using the PMI technique. Edward de Bono's PMI technique (Portmann, Easterbrook, 1992) is based on the popular technique of pluses and minuses. The term PMI means *plus, minus, interesting ?*, which are the three dimensions on which the idea is evaluated, pointing to its strengths, limitations and perspectives.

Results of research

Although the areas identified in PARP studies concern the functioning of clusters, they also refer to the activities of the coordinator who, in implementing them, improves the functioning of clusters in keeping with the policy adopted from the PARP reports. The activities of the coordinator should, in principle, be in the style of servant leadership. In other words, they should as a priority support and activate the activities of partners in a cluster for mutual benefits. The consequence of such assumptions is the specific description of areas of coordination illustrated in table 1.

The above-mentioned knowledge could be complimentary in the process of standardizing cluster management by paying attention not only to its indicators, but also by introducing an additional factor which is important from the perspective of classical management theories – the style of cluster coordination.

Table 1. Description of areas of coordination of cluster structures in view of the theory of servant leadership.

Main areas of coordination	Overall goal/ function of the cluster coordination area in the cluster structure	Description of areas of coordination according to the theory of servant leadership
Organization	Formalization of the principles of cluster's functioning (structure, strategy) as well as defining the tasks and empowering the coordinator in a cluster structure	Awareness of the goals of the functioning of clusters and defining the competencies that would support it in subordination and not as commands (<i>Forsight, Awareness</i>)
Resources	Tending to : - financial resources (plan, sustainable sources of financing, transparency), - infrastructure in support of coordination processes and cluster operations, - human resources (appropriate number of employees necessary to undertake coordination activities, qualified). Has knowledge concerning other resources in the cluster and their potentials	Listening – Openness to gather information on financial needs, care for qualified personnel who will be helpful and will find time to familiarize themselves with the problems and needs of cluster members. (<i>Listening, Stewardship</i>)
Processes	In the area of marketing and public relation promoting the cluster externally	Commitment to growth through image creation. (<i>Commitment to the growth</i>)
	In the area of internal communication, initiating forms / areas of information exchange in order to sustain contacts and integration.	Care for proper communication, that is efficient and favours partnerships. (<i>Listening, Building community</i>)
	In respect of development, monitoring and evaluating cluster activities in the field of strategy implementation (benchmarking and identification of weaknesses), gaining new members and support for ideas, innovation initiatives. Care for quality management in clusters	Help in identifying factors favouring cluster development as well as weaknesses in order to undertake activities for improvement (<i>Commitment to the growth, Persuasion</i>)
	In the area of environmental protection. Acting in compliance with corporate social responsibility (CSR).	<i>Building community</i>
Services for cluster activities	Taking actions to obtain financial resources and to care for information support; engaging in creating innovation, initiating and supporting the activities of cluster members within the scope of existing value chains; participating in competitions, trade fairs,	Undertaking activities for improving the functioning of the cluster, more efficient accomplishment of set goals, raising funds, engaging and supporting current cluster activities (<i>Healing, Empathy, stewardship</i>).

	initiating and supporting the actions of cluster participants in networks; coordinating activities related to obtaining new knowledge or its diffusion; support for internationalization (care for multilingualism of information).	
Cooperation with local community	Care for sustainable contacts with local government authorities, scientific centres and other business related institutions, cooperation with other cluster coordinators, care for the cluster's identity by organizations responsible for creating cluster policies.	Engaging in developing external cooperation, open attitudes, acting for the well-being of cluster members. (<i>Conceptualization, Stewardship, building community</i>)

Source: own elaboration based on observations while participating in consultations on Cluster Management Standards (11.2014), organized as part of the Polish Agency for Enterprise Development project titled "Standards for Cluster Management" as well as elaborations on servant leadership contained in Spears C, *The Journal of Virtues & Leadership*, 2010 School of Global Leadership & Entrepreneurship, Regent University, Vol. 1 Issue. 1, 2010, 25-30

Discussion

Support for clusters is not only about their establishment, but also working on improving cooperation, increased international competitiveness and impacting on the national economy. Prescribing standard models of cluster management is also important, not only because of cognitive reasons, but also due to the fact that it encourages cluster managers to excel in management (Gamp et al, 2011). Activities designed for this purpose are in response to issues of poor cluster management identified in numerous studies regarding key factors of cluster structures. For example, A. Lis (2009) in his studies on cluster initiatives of the MTD Group postulates that the top-down approach to cluster creation by public authorities is indeed risky. The key factors of cluster development include: an involved coordinator and sustainable links, trust, a comity of goals and cultural norms. The observations herein presented fit in this trend as they do not draw attention only to areas of necessary efficient and perfect functioning of clusters, but also emphasise the style of management, which works best in cooperation-based activities as in cluster structures.

Table 2. Synthetic analysis of the issue of standardizing the process of coordination in cluster structures using the PMI technique (examples)

Standardization of process of coordination concept in cluster structures		
Pluses	Minuses	Interesting fields
<ul style="list-style-type: none"> - empirical material subjected to practical verification, - identifying areas of the coordinator's activities, - knowledge database gathered in course of implementing the project on standards, - preparing solutions for futher actions, suitable for practical application and future modifications 	<ul style="list-style-type: none"> - difficulties in adjusting standards to all forms/ stages of developing cluster structures, - focusing the coordinator's activities without taking into account the significance of actions implemented for the impact of cooperation, - excessive current focus on practical justifications, coupled with poor application of existing scientific theories 	<ul style="list-style-type: none"> - Are there other management theories eg., the situational approach, that could be applied in interpreting the coordination phenomenon in clusters? - Is there any way to specifically distinguish between management and coordination as regards the coordinator's tasks in clusters? - How can the impacts of the coordinator's behaviours be measured while implementing tasks, knowing of the complexity of links existing within and without structures?

Source: own elaboration

In analysing the key areas of cluster management identified in the Cluster Management Standards (2016) publication it can be observed that they are, in nature, supportive of clusters. There exists, in the concept herein presented, a cognitive gap in respect of appropriate adjustment of leadership styles, which forms the core of the discussion. Association of the servant leadership concept helps in understanding the nature of the key areas of cluster coordination being implemented from the coordinator's view point and enhances process improvement.

The debatable phenomenon of standardizing the process of coordination in cluster structures that took into account and identified the style of coordination has many positive features identified. These areas of efficiency improvement in their functioning showcase the value of the concept being designed. One can, using the PMI technique, diagnose areas that may be valuable for the conduct of

further studies in the subject area (*Table 2*). Thanks to the identified minuses (doubtful areas), one can easily determine those aspects of methodology applied in studying the phenomenon, presentation of findings or their analysis that are worth further analysis and reflections. The column with interesting issues identified while preparing the above discourse can become an inspiration, a clue, new area that is worth elaborating on in future deliberations in the subject area or a factor that triggers a completely new area of research.

Conclusion

In concluding this part of the discourse, it can be noticed that a unit that coordinates the tasks of co-operation via the coordination function is a necessity within a cluster. The process ought to be characterized by more supportive, initiating and management features. Gray literature publications, based primarily on the diagnosis of the concept of coordination, provide practical descriptive knowledge regarding coordination in clusters from the perspective of its key components and their excellence (definitions of standards). To fully evaluate the phenomenon from the perspective of management sciences, it is important to treat coordination as a specific management process in clusters (as structures of cooperation) from the view point of the attitude of a coordinator associated with a particular style. The servant leadership concept as presented in scientific literature provides theoretical knowledge concerning the specificity of the process, which can constitute a significant input to its improvement.

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FREELANCING - A CHALLENGE FOR MODERN HR DEPARTMENTS IN POLAND AND IN SELECTED COUNTRIES OF THE EUROPEAN UNION

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Abstract: In the last few years new trends have appeared in the labour market, which are aimed at tightening up the market and introducing alternative forms of employing and engaging employees, e.g. contracting or temporary work. More and more often, the lack of permanent employment is the effect of the employee's own decision. The aim of this article is to present freelancing, namely a work model that allows a person to freely decide on the implemented projects, working hours, as well as remuneration. This is called the phenomenon of "uberisation" of the labour market and sharing economy, which is also called the "freelance economy", which is a situation in which full-time work is supplanted by flexible forms of employment. This article is of a theoretical and empirical nature.

Keywords: freelancing, labour market, flexible forms of employment, recruitment, contracting

Introduction

The purpose of the article is to present the subject of organizational flexibility in the area of employing human capital with particular emphasis on freelancing, a modern work model that begins to dominate the employee market, which is connected with to the decentralization of the Polish labor market. It is a fragment of a wider elaboration. "Economy 4.0 means not only the need to educate professionals, but also the need for new professions as well as redefinition of the labor market and changing the rules that prevail on it. The answer to the needs of the labor market and finding appropriate employees are becoming a problem, which is the reason why companies use more and more new and complex methods of personnel selection for the organization. The demand on the labor market is created by the organizations which determine the necessary to achieve the company's established objectives from the point of view of desired qualifications, whereas the supply on the labor market is determined by social, demographic, geographical, educational factors as well as competence profiles and the specificity of the labor market" (Przewoźna-Krzemińska, 2017: p.126).

"The phenomenon of freelancing is sometimes defined as the economics of cooperation or economics on demand. The article will include a literature review, methodological verification of the results of the report commissioned by the Polish remote work platform Useme.eu, based on which an attempt to answer the question whether this work model has an impact on the organization's effectiveness and the freelancers' commitment and worthy wages has been made. The research sample was 723 people, the method of an anonymous questionnaire was used, in which, among others, questions regarding freelancers' internship, trade, ways of obtaining contracts, earnings, combining remote work with full-time work, legal form were asked. It is worth emphasizing that freelancing is a kind of career without a long-term commitment to one employer (<https://www.merriam-webster...>). . Popularization of remote work is intensified by the development of no-office solutions, in which companies start to base their structures on remote work and hired employees, appropriate to the actions taken.

The history of freelancing

The term *freelancer* has been used more and more often in recent years, however, this model of work has not been researched in too many literature studies. In the United States, this phenomenon has been known for a long time, while in Poland in the last ten years this form of providing services has been gaining popularity on the labor market. Polish Dictionary defines a freelancer, as a person performing a free profession, working without employment contract, acquiring contracts on internet auctions or carrying out fee-for-task projects. (<https://pl.wiktionary.org/w/index.php...>). Such a person is also called a "contractor" or "self-employed person". Freelancers usually perform free professions (usually connected with creative work), among others, they are: copywriters, journalists, photographers, translators, IT specialists, programmers, painters, designers, graphic designers, various types of advisors, consultants of various specialties, actors etc. Freelancers also begin to provide services in such industries as media, finance, public relations or marketing.

The person who used the word freelancer for the first time (in 1820) was the writer Walter Scott, who called freelancer the mercenary, medieval warrior in his novel called "Ivanhoe". He created this term by combining the word free and lance (weapon). At the beginning of the 19th century in England, the term freelancer was used to refer to paid mercenaries who fought for any country or the person who would pay the most (the so-called army of paid warriors or free lances). However, the word got a wider meaning; currently it refers to the definition of independent politicians (without political affiliation, non-affiliated), and above all it describes people, usually self-disciplined specialists, who are self-employed without a permanent commitment to the employer. Classic freelancing was born in the USA as an alternative to a full-time job. Currently, over 10 million Americans provide their services in this form (it is more than 7% of professionally active citizens). Internet, as an available and modern method of communication, has contributed to the development of freelancing. The Internet facilitated contacts, the ability to send different and large data and made it possible to present the demand for various services that freelancers can perform. Work is becoming more and more mobile. Specialized portals allow to connect and communicate potential principals and contractors. This happens increasingly at the expense of full-time employment (<https://businessinsider.com.pl...>). "The discussion has focused primarily on the distinction between those genuinely in business on their own account, employees and employers, rather than between freelancers and other kinds of own-account worker. Freelancers might be defined as a distinct subset of own-account workers on the grounds of skill or occupation. Popular and academic conceptions of freelancing consider it to be the work of skilled professionals, arguably encompassing creative, managerial, professional, scientific and technical skills and occupations – groups often collectively described as *knowledge workers*" (J. Kitching, D. Smallbone, 2012, p.74).

The proportion of self-employed (people age 15-64) in UE are presented below (Chart 1).

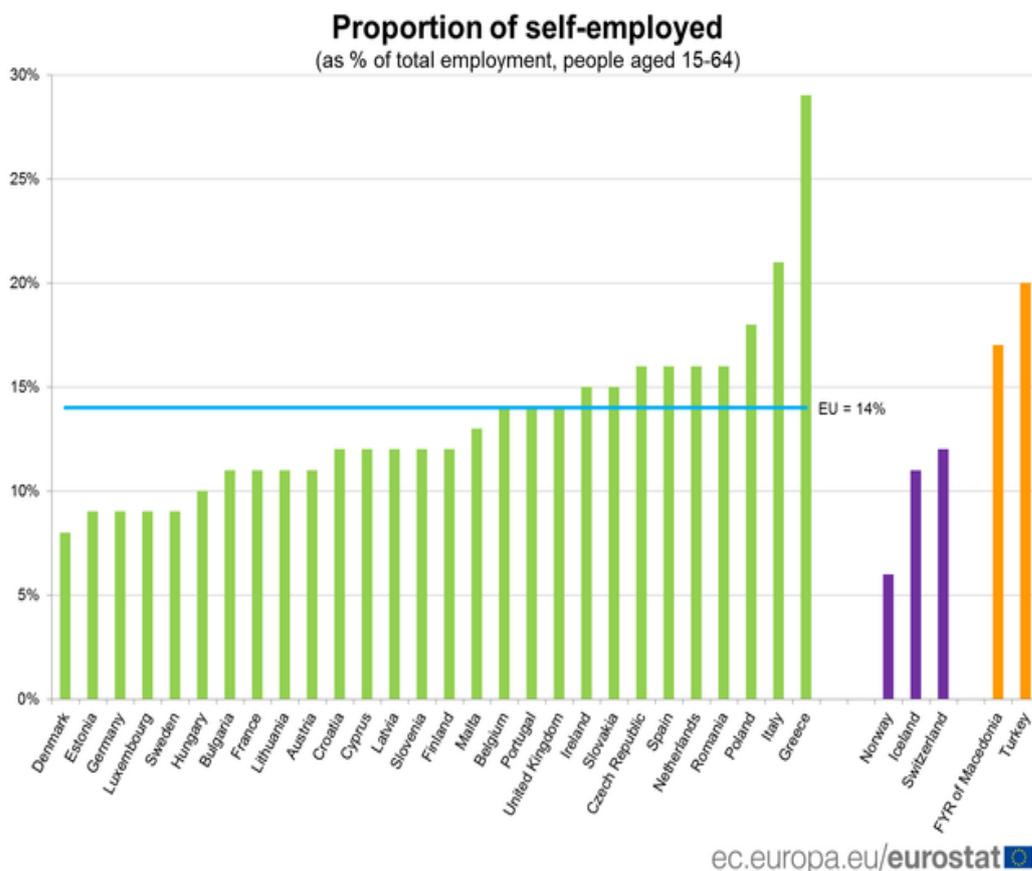


Chart 1. Proportion self-employed in UE.

Source: ec.europa.eu/eurostat

“Across the EU Member States, almost one in every three people in employment in Greece was self-employed in 2016 (29%), and around one in five in Italy (21%) and Poland (18%). At the opposite end of the scale, the self-employed accounted for less than 10% of total employment in Denmark (8%), Germany, Estonia, Luxembourg and Sweden (all 9%)” (<http://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20170906-1>), (17.04.2018).

Freelancer in Poland

In contrast to the Western European Union countries, freelancer work in Poland is not easy and associated with high risk. Polish employers are more and more willing to employ "freelancers", yet the wages they offer balance on the level of the lowest one, and in exceptional cases of the average national wage. The work of a freelancer, especially a young university graduate, still involves risk, financial support (usually by parents or one's full-time work) and high creativity which is necessary when acquiring contracts. The research conducted by the Usem platform indicates that the typical Polish freelancer is mainly a man (over 56% of respondents) aged 25-34, living in a large city (40.4%), having a Master's degree (including one in engineering) or bachelor's degree. The highest earnings and the most popular industries in which freelancers operate (in services for business) are primarily: the electronic industry (programming and IT 26%, graphics and content creation 36%, copywriting 31%). Earnings in these specialties exceed the amount of 10,000 net. While analyzing reports on earnings from 2016 and 2017, it can be stated that the earning situation of freelancers is gradually improving – they earn between 3,000-5,000 PLN net (9.5% of respondents). The largest group (2/3 of the respondents) are freelancers (with a short seniority) earning only up to 2,000 PLN net monthly, while 14.5% of respondents earns between 2,000-3,000 PLN net.

Just over 8% of respondents earn over 5,000 net PLN. The problem of the Polish freelancer's work is time management, i.e. unlimited working hours. Nearly 60% of respondents work 6 to 10 hours a day, however, for the vast majority (95% of respondents) working hours are flexible, only 5% of respondents report that they work at fixed times.

"Companies are created whose specialty is the association of freelancers and seeking contracts for them. It causes that the Polish labour market and services dynamically develop in this direction"(<https://rynekpracy.pl...>).

According to the results of research, the source of receiving contracts for Polish freelancers are mainly recommendations, instructions and cooperation with regular clients, and furthermore, the sources are advertising portals (both Polish and foreign) and advertising. On average, a Polish freelancer gains around 5-7 new clients monthly, working for two or three regular customers. They work mainly for small and medium-sized enterprises from Poland, rarely for foreign corporations, unless they are professionals with many years of experience. Nearly 50% of respondents say that they combine full-time jobs with freelance earnings.

The legal form of performing the job (the choice of the type of settlement) by Polish freelancers is very diverse. Nearly 42% of respondents prefer contracts of mandate and task-specific contracts, 23% conduct their own business and do the settlements on their own, while nearly 13% declare settlements "without invoices, bills", illegally. Analyzing respondents' answers, one can summarize that nearly a quarter of freelance settlements are "grey zone", without paying taxes, however 70% of respondents say that there are no problems with payments. It can be concluded that such a situation satisfies both principals and contractors. The advantages and disadvantages of Polish freelancing are presented below (Table 1).

Table 1. Advantages and disadvantages of freelancing in Poland

Advantages of freelancing	Disadvantages of freelancing
<ul style="list-style-type: none"> - flexible working hours, choice of holiday date - choice of the principal or employer, - independence in making decisions, - choice of a civil law contract or own business - possibility of working remotely (from home) or a joint office (co-working), - any amount of time devoted to work, - continuous development (diversity and attractiveness of projects), - possibility of cooperation with contracting companies (assistance in obtaining orders and contracts), - lack of superior. 	<ul style="list-style-type: none"> - lack of good contracts, - artificial underpricing, - low wages, - big competition, - lack of social and health protection, - continuous forcing by the freelancer to: self-discipline, organizing work, time management, development of social competences and interpersonal communication, - continuous acquisition of new clients, - participating in auctions in order to obtain a new project.

Own study based on the report of the Polish remote work platform Useme.eu

Currently, Polish freelancers are representatives of the Y generation, which has been operating on the labor market for several years. However, it often happens that the jobs that employers offer them are not consistent with the expectations and plans of employees. Therefore, they are looking for alternative forms of earning. The organization of the freelancer's work responds to the key needs of the Y generation. Work in this mode allows for changing the environment and pursuing non-professional passions.

Representatives of the Y generation are flexible, open to change, ready to learn and reluctant to make long-term commitments, This is all related to the need to adapt to the rapidly changing environment (Robak, 2017: p.441). "Companies start to fight for employees by building an image of a friendly workplace outside the organization, and some employers are aware that such activities should also be used within the organization and be tailored to its strategy. There are many people who are willing to work, but the qualifications and skills which do not meet the requirements of employers become a problem. And on the other hand, the most active on the labor market is the so-called generation of millennials who is characterized by low loyalty and high requirements. If they have high qualifications and competences, they put conditions, dictate working time, prefer to work remotely." (Przewoźna-Krzemińska, 2016: p. 39).

Conclusion

The article presents an analysis of the results of the report of the Polish remote work platform Useme, based on which it can be concluded that organizations are more likely to use independent specialists in order to improve their work efficiency, which is definitely cheaper than employing full-time employees, in particular when it concerns a specific, one-time contract, e.g. narrow specialization in the IT area. The organizations cooperate with contracting companies in order to use the services of a freelancer, they also transfer formalities related to concluding contracts for these companies.

"In 2018, the personality of the freelancer, his image, and not only what he can do, will be even more important than ever before. Why? Because there are more and more freelancers and there is no way to compete with experience (because many people in the industry have similar). You have to be distinguished by personality" (<http://www.wiwar.pl/czy-warto-pracowac-jako-freelancer-zalety-i-wady-bycia-wolnym-strzelcem>).

Analyzing the data quoted, it can be concluded that freelancers' work order is cheaper and less risky for entrepreneurs, however, the earnings are still very low for freelancers, some of them are collected by intermediaries (e.g. contracting companies). Polish freelancing is a novelty in the changing labor market, unfortunately Polish labor law is not keeping up with such rapid changes, there are no legal regulations (contracts, personal data protection, confidentiality of information) regarding this form of cooperation (cooperation, sharing etc.). It is important, however, that the ability to adapt to changing conditions influences the effectiveness, commitment and dynamic development of the individual and organization.

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RELATIONSHIPS BETWEEN PRO-INNOVATION ORGANIZATIONAL CULTURE WITH REALIZING GOALS CONCERNING PRODUCT AND MARKETING INNOVATIONS IN COMPANIES FROM FMCG SECTOR

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Abstract: Implementing innovations is currently considered to be the key factor for company development. One of the ways to increase innovativeness in a company is to create a type of organizational culture which supports innovations. The aim of this paper is to diagnose the relationship between innovation-friendly climate in companies and the degree of realizing goals concerning product and marketing innovations in companies from the FMCG sector. The study was conducted on a sample of 165 companies. The findings indicate the existence of a positive correlation between pro-innovation organizational culture in the studied companies and the evaluation of the degree of realization and the company's market success in the fields of product and marketing innovations.

Keywords: product innovations, marketing innovations, innovation, pro-innovative organizational culture

Introduction

Innovation is considered to be the key driving force of economic development and plays a seminal role in competition (OECD, 2010). It has been emphasized many times that innovations have significant influence on companies' performance (Hogan et al., 2011, p. 1263; Zastempowski, 2014, p. 28-29; Grego-Planer, Glabiszewski, 2016, p. 23-24; Aksoy, 2017, p. 133; Liczmańska-Kopcewicz, 2017b, p. 314; Pypłacz, 2017, p. 22). In order to maintain high efficiency and competitiveness, companies need to implement the rules of pro-innovation organizational culture. Many authors have noticed that creativity, empowerment and changing organizational culture facilitate innovation (Leisen et al., 2002, p. 201-202; Hartmann et al., 2006, p. 159; Binnewies et al., 2007, p. 433; Gregory et al., 2009, p. 673; Tellis et al., 2009, p. 3-5; Valencie et al., 2010, p. 465; Aksoy, 2017, p. 135). Empirical evidence suggest that it is important to develop, maintain and promote the culture of innovation if companies wish to remain efficient and innovative (Simpson et al., 2006, p. 269; Terziovski, 2010, p. 894).

The existing literature, however, leaves a certain gap, which requires further exploration of the capability to achieve success in the fields of product and marketing innovations by shaping the organizational culture which is oriented towards supporting innovations, which should ultimately influence a company's performance.

The work has made use of a review of subject literature and some of the findings of empirical studies referring to pro-innovation organizational culture and the fields of product and marketing innovations. The study was conducted on a sample of 165 companies from the FMCG sector. The results indicate that there is a positive correlation between pro-innovation organizational culture and the evaluation of the degree of realization and a company's market success in the field of product and marketing innovation.

Pro-innovation organizational culture – theoretical background

The role of innovation is ensuring a company's success or even survival has attracted attention of numerous researchers (Tellis et al., 2009, p. 3-19; Rubera, Kirca, 2012, p. 131-142; Lee et al., 2017). Innovations may take various forms, from new products to systems which support management processes. Schumpeter (1960, p. 104) defined innovation as non-continuous undertakings involving new combinations of productive factors. According to him, they include five following cases: introducing a new or improved product; introducing a new or modified method of production, which has not been previously used for a given purpose; opening a new market; acquiring a new source of resources of semi-finished products, or introducing a new organization of industrial processes in terms of production, as well as distribution.

Innovation-based skills have been defined by Ngo and O'Cass (2009, p. 48) as an “integrative process of implementing a company’s total body of knowledge, skills and assets in order to perform innovative actions in terms of technological innovations (products and/or services and the technology of production processes) and non-technological innovations (management, market and marketing).

The potential for innovation and competitiveness, and thus the prospects for growth, regardless of the current macroeconomic conditions, is influenced, among other factors, by the culture of organization. It refers to the values and beliefs which ensure the norms for desired behaviors, which can be followed by employees (Scott, Bruce, 1994, p. 580; Hogan, Coote, 2014, p. 1609; Żukowskis et al., 2016, p. 5-6). A company which has or is developing pro-innovation culture may improve their performance in the future. Empirical evidence suggest that organizational culture significantly influences market behaviors, financial and market results, employee attitudes and organizational effectiveness (Homburg, Pflesser, 2000, p. 449-458; Gregory et al., 2009, p. 673-679; Zheng et al., 2010, p. 763-768).

Anti-innovation culture, on the other hand, inhibits innovation and competitiveness, even if decision-makers improve the conditions (Pettrakis et al., 2014, p. 1436). Innovative culture indicates to what extent a company is suitable for developing innovations, or rejects innovation (Hurley, Hult, 1998, p. 42-50). Culture is a strategic instrument, which determines the levels of innovation and competitiveness by means of two channels: employees learning and the organizational structure (Liczmańska-Kopcewicz, 2017a, p. 2).

Organizational culture plays a seminal role in encouraging pro-innovation behaviors, as it is capable of stirring engagement among organization members with respect to accepting support for innovation as an organizational value and adopting the norms related to innovations which occur within an organization (Hartmann, 2006, p. 159; Binnewies et al., 2007, p. 454-455). Innovation requires culture which promotes free exchange of ideas among all individuals involved in a company (from customers to management). Such culture is necessary for companies to implement innovations, thus becoming more competitive (Pachura, 2017, p. 174-178; Pettrakis et al., 2014, p. 1437) An organizational structure creates effective management structures, thanks to which companies can implement innovations and gain competitive advantage.

Pro-innovation culture is a set of shared beliefs and agreements within an organization which determine all actions embedded in formal and informal systems, behaviors, competences and processes, and which are a driving force for constant search for and implementation of innovations (Calantone et al., 2002, p. 515-524; Simpson et al., 2006, p. 1133-1141; Siguaw et al., 2006, pp. 556-574). Subject literature emphasizes the issues which are regulated by culture which facilitates innovativeness within an organization, such as: trust and openness, willingness to take challenges, supporting and providing space for new ideas and solutions, approach to conflict-solving, risk-taking, and autonomy of operation (Sakuwati, Astawa, 2017, s. 228; Tidd, Bessant, 2011, pp. 198-204).

Orientation towards innovation should influence the number, pace and type of innovations created by a company (Simpson et al., 2006, p. 268). Many authors suggest that product innovativeness is stimulated by the culture of innovation (Saban et al., 2000, p. 99; Valencia et al., 2010, p. 467; Hoogan, Coote, 2014, p. 1610). On the other hand, Leisen, Lilly and Winsor (2002, p. 202) have observed positive links between pro-innovation culture and marketing effectiveness.

Bearing the aforementioned aspects in mind, the following hypotheses have been put forward:

H1. There is a positive dependence between pro-innovation organizational culture and the degree of realizing the goals concerning product innovations. Product innovation is stimulated by pro-innovation culture.

H2. There is a positive correlation between pro-innovation organizational culture and the degree of realizing the goals concerning marketing innovations.

Research methodology

For the purposes of the implementation of the research objective, we made a review of national and foreign literature and we also applied thought mapping. Cognitive methods were supported by our own research. The aim of this study is to diagnose the relationship between pro-innovative organizational culture and the degree of achievement of goals in the field of technological innovation in enterprises of the FMCG sector.

Representatives of management staff of companies operating in Poland's FMCG sector were invited to participate in a study carried out in the period from January 2016 to February 2017. The selection of the sample was deliberate. The study covered those companies that were assessed by their management boards as innovative ones. Yet another criterion for eligibility for participation in the study was the launch of new products in the last three years. Taking into account the research objectives and the deliberateness of the sample, we decided to choose the interview method implemented via the Internet (CAWI) as our information collection method. In the case when contacting a respondent was problematic, the computer-aided telephone interview (CATI) method was applied. In each case, the same interview questionnaire was used. The survey was carried out using the questionnaire method. Although this article presents partial results of the empirical research conducted, they allowed us to evaluate the sources and inspiration of product innovations in the FMCG sector. Altogether 165 observations were taken into account. Table 1 presents the characteristics of the test sample.

Table 1. Characteristics of the enterprises surveyed (N = 165)

The questionnaire elements	Volume	Participation in %
Enterprise size:		
- small (10 - 49 employees)	69	41.82
- medium (50 - 249 employees)	61	36.97
- large (over 250 employees)	35	21.21
Industry:		
- groceries	80	48.48
- household chemicals	11	6.67
- personal hygiene articles	7	4.24
- cosmetics	18	10.91
- non-alcoholic beverages	22	13.34
- beer	12	7.27
- spirits	11	6.67
- pet food	4	2.42

Source: elaborated by the authors based on the results of the study conducted.

FMCG, *i.e.* Fast Moving Consumer Goods, is a sector of the economy that includes the so-called quickly tradable goods, also known as basic necessities. This group includes various and broad categories of goods such as food products, beverages and spirits, tobacco products, cosmetics, personal hygiene articles, household chemicals, and over-the-counter drugs. These are products whose unit price is not high and are bought in mass quantities.

Statistical analyses were carried out using the IBM SPSS Statistics version 24 software package. Altogether 165 observations derived from enterprises operating in the FMCG sector were taken into account. Table 2 presents descriptive statistics of the variables examined.

Table 2. Characteristics of the enterprises surveyed (N = 165)

Variable	Range	Min.	Max.	Average	M	D	Standard deviation	Variance
Pro-innovation organizational culture	5,00	5,00	10,00	6,87	7	7	1,013	1,026
Evaluation of the degree of realizing the goals concerning product innovations	6,00	4,00	10,00	7,82	8	9	1,567	2,455
Evaluation of the degree of realizing the goals concerning marketing innovations	8,00	2,00	10,00	7,95	8	9	1,594	2,540
Evaluation of market successes concerning product innovations	6,00	4,00	10,00	6,77	7	8	1,492	2,227
Evaluation of market successes concerning product innovations	7,00	3,00	10,00	6,41	6	6	1,585	2,512

Source: elaborated by the authors based on the results of the study conducted.

The role of pro-innovation culture in realizing the goals related to technological innovations- conclusions from the conducted study

The studied variables constituted the degree of evaluation of the fulfillment of goals and marketing success concerning product and marketing innovations, as well as an assessment of market success based on the innovations. They were evaluated according to an 11-point scale, Cronbach reliability coefficient for the whole group being 0.739. The result indicates internal cohesion of the analyzed factors.

In order to determine whether the studies companies demonstrate monotonic dependence between particular factors and the evaluation of pro-innovation culture of an organization, Spearman's rank correlation coefficient was used. The results are presented in Table 3.

Table 3. Correlations between pro-innovation organizational culture the degree of evaluation of the fulfillment of goals and marketing success concerning product and marketing innovations (N = 165)

Spearman's rho		Pro-innovation organizational culture
Evaluation of the degree of realizing the goals concerning product innovations	Correlation coefficient	,285
	Significance (two-sided)	,000
Evaluation of the degree of realizing the goals concerning marketing innovations	Correlation coefficient	,256
	Significance (two-sided)	,000
Evaluation of market successes concerning product innovations	Correlation coefficient	,448
	Significance (two-sided)	,000
Evaluation of market successes concerning marketing innovations	Correlation coefficient	,401
	Significance (two-sided)	,000

Source: elaborated by the authors based on the results of the study conducted

The findings indicate that all four factors are correlated with the evaluation of pro-innovation organization culture by means of a positive and statistically significant relationship. The positive character of those correlations means that a higher evaluation of the pro-innovative nature of organizational culture is accompanied by a higher evaluation of the degree of realization of the goals and market success concerning product and marketing innovations. When analyzing the power of correlation for r , one should notice that a small dependence (0.2-0.4) occurs in the case of evaluating both product and marketing innovations. A moderate dependence (0.4-0.7) was observed in the case of evaluating market success concerning product and marketing innovations.

Discussion

The research findings indicate certain implications for managers in terms of the importance of pro-innovation organizational culture for ensuring the success of product and marketing innovations in companies from the FMCG sector. The presented research results are consistent with other pieces of research in this field conducted worldwide (Leisen et al., 2002, p. 201-202; Simpson et al., 2006, p. 269; Hartmann et al., 2006, p. 159; Binnewies et al., 2007, p. 433; Gregory et al., 2009, p. 673; Tellis et al., 2009, p. 3-5; Terziovski, 2010, p. 894; Valencie et al., 2010, p. 465; Aksoy, 2017, p. 135). In the context of analyses so far, one should arguably accept the conclusion that supporting pro-innovation culture within a company may contribute to an increase in the degree of realizing a strategy related to product and marketing innovations. It should be noticed that companies from the FMCG sector which took part in the study seem to be aware of the significance of pro-innovation organizational culture for achieving market success in terms of product and market innovations.

Conclusion

The conclusions from the presented study allow for positive verification of the hypotheses put forward in the article. A positive climate for innovations in companies and developed pro-innovation culture have influence on the implemented product and marketing innovations.

The diagnosed direction and significance of pro-innovation organizational culture for ensuring the success of product and marketing innovations of companies functioning in the FMCG sector justifies the need to tackle the research problem analyzed in this study, while at the same time encouraging its further exploration, especially in order to formulate valuable recommendations for economic practice. A special opportunity for future studies concerns the role of managers in developing and supporting the culture of innovation.

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THE USE OF COACHING BY MANAGERS TO DEVELOP SELF-MANAGEMENT SKILLS

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Abstract: The idea of self-management was introduced into management science by P.F. Drucker at the turn of the 21st century. Self-management can be viewed as using resources and life energy in order to utilize a person's own potential according to his or her life mission, values and priorities, which allows for greater satisfaction from their own activities and improves the quality of relations with other people. Furthermore, coaching can be approached as a practical tool that is conducive to self-management through the introduction of changes in the areas of life of the individual where such changes are needed or desired. The paper emphasizes the place and role of self-management in management sciences and problems of developing self-management skills by managers using coaching techniques.

Keywords: coaching, manager, self-management

Introduction

The idea of self-management contains many skills which are useful from the standpoint of contemporary people, who work and are often overloaded by various requirements. These include development of human potential based on the person's values, strengths, priorities; creating the vision and mission in the life; developing proactive attitudes connected with skilful time management; caring for well-being and quality of relations with other people. These abilities cannot be overestimated and, therefore, they can be developed by means of various tools, including coaching. With the support of coaching, the manager can actively recognize the mechanisms that govern the change, extend the field of self-awareness, analyse and idea or a problem from new standpoints and design and implement concrete actions connected with the area of the desired change.

The paper concerns the problems of the importance of self-management in management sciences and presents the proposal for the development of these skills by managers using coaching techniques according to the concept of Stephen R. Covey (2017): „*Private victories precede public victories. You can't invert that process (...). You have to start from the inside.*”

Background

In 2002, the Society of Managers in Poland adopted the *Code of Manager's Ethics*, which contains e.g. the following provision pertaining to relations inside the organization:

- „*A manager is oriented at constant and harmonious development of their own personality and the co-workers they manage*” (Gasparski 2012, p. 315).

The provision places the area of personal development which is important to contemporary people in the centre of manager's attention. However, it should be emphasized that the phrase "harmonious development of personality", which sounds very well in this document, is relatively enigmatic from the standpoint of practice as it is unclear what it should mean. Understanding of the complexity of this postulate by managers can be facilitated by the concept of self-management introduced by Peter F. Drucker (2006, 2009) at the turn of 21st century, which emphasized the importance of self work for proper performance of the adopted professional roles according to the principle of „*you cannot manage other people better than you can manage yourself*”. Furthermore, this idea, which is new in management sciences, can be understood from the standpoint of historical tradition as a continuation of the ancient commandment: „*meet yourself*”²⁴ that has been considered for ages as the most important task in human life which has always been the most difficult task. As emphasized by

²⁴ See inscription on the temple in Delphi, Socrates heritage.

Renata Gut, „*we are not (...) experts in ourselves. We do not understand why we think, feel, act, respond and communicate in certain ways. We do not know how we influence others, how they see us, how we impact on them and what impressions we make*” (Gut et al. 2008, pp. 18-19).

With the onset of positive psychology at the end of 20th century in the USA, the paradigm changed substantially: psychology, which was previously focused on disturbances, maladjustment, emotional traumas, prejudices, negative effects of human activity, started to examine factors that determine human happiness, development, internal force, mental health, satisfaction from life, feeling the sense of life, feeling responsibility, ability to make choices etc. Scientists, who have searched for inspiration in e.g. hedonistic mainstreams and ideas of Aristotelian eudaimonia (Czapiński, 2012, pp. 13-17), designed and performed their research through creation of „*the science on human strengths and personal fulfilment*” (Seligman 2012, p. 21). The current of positive psychology is characterized by the research ordered or performed by Daniel Goleman (1997, 1999) that identified the characteristics which are of key importance to the development of the employee's career, which make him or her able to be successful at work and examined how these characteristics can be improved. This research resulted in creation of a general framework for emotional competencies (self-awareness, self-regulation, motivation, empathy, social skills). The current of positive psychology, health and personal development also involves the research on employees' recognition and utilization of their strengths and the research concerning the focus of the successful enterprises on strengths of their employees and definition of mission in their teams (Buckingham, Coffman, 2009; Buckingham 2010).

Review-of-Literature

Various definitions has been used since the introduction of the term of self-management into management sciences. The classical definition, formulated by Drucker (2006, 2009), puts emphasis on:

- recognition and use of person's strengths,
- giving up bad habits,
- analysis and drawing conclusions based on feedback information,
- care for personal culture,
- definition of person's own style of learning and working,
- acting based on a system of values,
- determination of the person's own place at work,
- thinking about personal contribution to the development of the organization,
- caring for interpersonal relations in the enterprise and
- developing additional interests in order to avoid routine and prepare for the second half of life.

Renata Gut, Maria Piegowska and Barbara Wójcik, the authors of the book „*Self-management. The book about acting, thinking and feeling*” (2008), understand self-management as a conscious, economic and ecological use of personal resources in human life.

In the concept concerning self-management, they emphasized:

- taking responsibility for person's own life and his or her own career path,
- development of self-awareness (extending knowledge about person's own functioning, thinking, acting, decision-making, motivation, emotions, building relationships, recovery, feeling of their own value, knowledge of the person's needs),
- recognizing and developing of personal resources;
- recognizing talents and using them to build person's strengths;
- ability to cooperate (Skolik, Robak 2016),
- recognizing mechanisms, sources of stress and developing resources which help them cope with stress,
- learning how to manage yourself in stressful situations.

Covey (2017) wrote about habits that help people act effectively and emphasized the importance of:

- moving on a scale of maturation from dependency (I entirely depend on you) through independence (I take responsibility for myself) to co-dependence (understanding that we are connected with each other and that cooperation can help create something bigger and more outstanding than what we could create in isolation),

- proactive attitude (taking responsibility for your own life, behaviours as a result of conscious choices that are consistent with the values, taking initiative in life),
- having a life mission (life philosophy), with the person answering himself or herself to the questions about who they want to be, what they want to do in life and which values they want to be based on; definition of what is the most important to them (e.g. relationship, family, money, work, pleasures, principles),
- learning how to manage leisure time (doing what is important and not urgent, building relations, seeking opportunities, creating life mission, establishment of long-term plans, physical activity),
- striving for real understanding of other people,
- keeping obligations and promises,
- maintaining internal honesty (cohesion),
- thinking using the win-win categories (striving for solutions which are favourable for everyone),
- caring for body and mind, development of spiritual, social and emotional areas.

In one of her more recent publications in the Polish market, Beata Kozyra (2015) stressed the following factors:

- self-understanding,
- openness to changes, proactive development of your own life,
- creating vision and mission in life,
- learning to manage time effectively,
- determination and achievement of important goals,
- maintaining self-discipline,
- self-motivation,
- learning to make decisions and solve the problems,
- being assertive,
- skilful management of your own emotions,
- coping with stress,
- caring for recovery of resources in all areas of human life.

Discussion

As can be seen from the above investigations, publications concerning self-management contain numerous indications that draw attention of the reader to what is important to humans who want to make effort of self-development in order to utilize their own life energy and resources in the manner which is the best for themselves and their environment. The pressure is on responsibility for yourself, learning yourself, caring for yourself, being based on values, having a vision and mission in life, proactive attitudes, developing personal resources, resting development on strengths, determination and achievement of important goals, starting cooperation, self-management in time, effective time management, stress management. All these proposals can be considered as a knowledge basis useful for the manager. However, although extremely important, having the knowledge is insufficient to harmoniously develop yourself and others while the most critical factor is ability to actively introduce it in life. This is not always easy as various obstacles can be encountered on the way to achieve this goal, with most of them blocking human activity from their inside. The most important are fear and resistance to changes (Autissier, Moutot 2013, p. 21; Randak – Jezierska 2015) and their derivatives, such as: postponing changes, fear of failure and making a fool of yourself, fear of success, inconsistency in actions, using lack of time or lack of ability to cope with stress as an excuse, which help return to previously developed bad habits and strategies of acting.

These difficulties can be overcome by coaching.

First and foremost, it is critical to understand the mechanisms that govern the change. Using the coach's support, the manager can actively use the tools that bring closer and help get used to the change, such as *change arc* and *Fisher curve*.

Change arc

The tool shows the course of the process of changes to the manager, with three consecutive stages:

- A. *Thawing*. At this stage, the manager perceives the need for changes. He or she is willing to go beyond the routines created by habits and ineffective patterns of thinking and acting. They determine the needs. They build vision of the future and build internal motivation for changes.
- B. *Change – fluctuations*. This is the stage of seeking alternatives. The managers experiment with new and previously unused methods of thinking and acting. They analyse the successes and failures resulting from these experiments.
- C. *Freezing*. This stage involves accepting new solutions. The manager chooses and establishes the best solutions in the form of a new pattern.

Fisher curve

This curve shows which positive and negative emotions can be experienced by any person who attempts to change and how they impact on the attitude towards changes. Knowledge of individual stages can facilitate the manager's engagement in the process of changes and help them cope with stress caused by what is new and unknown. It can also show that other people also experience similar stages, and, that these stages are normal and even demanded from the standpoint of the process itself. The Fisher curve shows that fear, feeling of threat, depression and disappointment are just the elements of the process of changes through individual progress (Marciniak, Rogala-Marciniak 2013).

Furthermore, it is important that the manager familiarizes with the coaching path and realizes the tasks that the coach and client are challenged with during coaching process, since this can represent an additional stimulus to use this type of path in their personal development.

The following stages can be distinguished in the coaching process (Starr 2011):

1. *Building a good contact*. Caring for the atmosphere which is conducive to coaching. Remembering that the coach and the client are equal partners who are obliged to respect each other.
2. *Isolation of the topic and purpose*. The customer specifies what they expect from the session. They determine the topic and aim of the meeting. The coach supports them in specification of the aim.
3. *Reaching understanding and insights*. The most important stage in the coaching path. With his or her skills (careful listening, observation, asking productive questions, facing challenges), the coach helps the client extend awareness with respect to the specific situation (new perspective, perception of the problem from another standpoint) and formulate their own conclusions.
4. *Conclusions and arrangements*. Summary of the client's ideas and conclusions by the coach. Helping planning further concrete steps by customers. Motivation for action.
5. *Closing and ending*. Confirmation of completion of the conversation. Ensuring that the client feels good with what they achieved during the meeting. Obtaining support for further action.

A good example of the coaching tool that can be successfully used by a manager to develop self-management skills is **the Dilts logical levels model**. The model is composed of 6 levels and the corresponding questions which are important during the analysis of a new idea, construction of the project, planning activity that is aimed to solve a concrete problem, reinforcing motivation etc.

Questions associated with specific logical levels help clients e.g. systematize the method of functioning in the external environment, see the selected goal from many standpoints and organize values; realize the skills, define his or her identity, create the vision consistent with values. Furthermore, each change made by the client at one level impacts on the lower level in the presented model. Going through all the levels in the model, the client obtains the answers to the questions about who they are, what is important to them, what they feel, which resources they have, what they have to learn and which concrete actions they have to take in order to achieve the intended goal (Wilczyńska et al. 2013, pp. 162-168).

Conclusion

Self-management is important, even fundamental for management sciences. The indications formulated by authors who deal with this problem can be treated by managers as a base of useful knowledge about skills that allow for a harmonious development of personality in work relations. They can treat it as a useful support which allows to actively overcome fears and resistance to change and introduces knowledge of self-management into their own lives. Using the coach's support and various coaching techniques helps the manager:

1. get used to the change,
2. learn the mechanisms responsible for functioning,
3. develop personal resources,
4. create the mission in his or her own life,
5. develop proactive attitudes in order to achieve the goals which are important both to him or her and the organization.

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FACTORS INFLUENCING THE RELATIONS BETWEEN EMPLOYEES FROM GENERATION Y AND THEIR SUPERIORS

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Abstract: In the presented study, the relationship between employees from generation Y and their superiors were highlighted. Characteristics of these young employees and their functioning in the work environment lead to the case whereby managing people from this generation is often a challenge for contemporary managers. The aim of the article is to identify the factors influencing the formation of positive relations between employees from generation Y and their superiors. In light of this issue, reference was made to the subject literature and the results of research and reports illustrating the expectations of Y generation representatives regarding work and especially relations at the workplace. The research part of the study presents the results of group interviews with working people from the Y generation. The collected opinions of the surveyed were compared with the managers' assessments included in the available research reports to indicate these aspects of managing the key relations with the Y generation which can support the activities of contemporary managers.

Keywords: generation Y, management of relationship with employees, positive relationships at work

Introduction

Demographic and generational changes affecting the contemporary labor market are also an important determinant of human resource management. Employers who want to make the best use of the potential inherent in the knowledge and skills of employed staff, must be aware of the generational diversity of employees should be translated into the diversification of approaches and activities that take into account the diverse expectations of employees (Robak, Albrychiewicz-Słocińska 2017, pp. 393-416). Managers have a large role in this process. For them, on the one hand, it rests on the task of recognizing the needs of employees, and on the other, shaping relationships with subordinates, so that they have a positive impact on their organizational involvement.

The generations operating on the labor market have different expectations towards work and employers and a different approach to their professional career (Kroenke, 2015, pp. 91-103; Czarnecka at all 2017, pp. 321-327). Particular attention in the analysis of modern labor resources is given to the Y generation (also referred to as Millennials), which most often includes people born from the early 1980s to the mid-1990s. Employers can no longer count on the loyalty and commitment of the representatives of this generation, as in the case of previous generations, because they display different values and work in a different style (Sharkawi, Mohamad, Roslin 2016, pp.192-202; Robak 2017a, pp. 441-449; Šafránková, Šikýř 2017, pp. 595–609). Ys, although, want professional development, they want to achieve it while maintaining a balance between work and personal life (Robak 2017b, pp. 579-594). Accustomed to frequent changes, they do not hesitate in changing their employer. It is difficult to comply with organizational procedures and rules, value work comfort, and thanks to education and foreign language skills are more mobile on the labor market. Taking into account the characteristics of the representatives of the Y generation, it should be noted that organizational solutions that work in the case of previous generations may become insufficient to stop and involve the young employees in terms of organization. The key tasks of contemporary managers should also include skillful shaping of positive relations with people from the Y generation.

The aim of the paper is to identify factors influencing the formation of positive relations between employees from generation Y and their superiors. The group focused interviews were aimed at analyzing the opinions of the respondents on the factors affecting the functioning of employees from generation Y in the workplace, including their relations with superiors. The issues discussed in the group interviews referred, among other things, to the search for answers to the issue relevant to this study: what superiors do the generation Y employees prefer and what kind of relationships they expect from the workplace?

Managing employees from generation Y in the light of research studies and reports

The issues concerning the functioning of the generation Y in the work environment, including the specificity of managing these young employees, have been the subject of many Polish and foreign research studies as well as international comparative studies.

Among the research analyzes devoted to the Polish generation Y, important messages include the results of research carried out by S. Stachowska (2012). The generation Y representatives surveyed declared that they expect from the future boss primarily open and honest communication and a fair and objective evaluation of their work. It was also important for them that the boss would set an example for others, be respectable and trustworthy, clearly define the tasks, and help and support their implementation. Respondents asked about the preferred model of the boss were in favor of the supervisor, who can appropriately motivate, at the same time setting a certain limit in relations with subordinates, and also able to maintain cordial contacts while enjoying the authority in the team under his/her command. Young people were definitely not satisfied with the traditionally understood model of the superior who gives orders, controls their performance and follows the principle of subordination (Stachowska 2012, pp. 47-48).

Expectations of Polish workers from generation Y towards employers and superiors were also the subject of M.W. Kopertyńska and K. Kmiotek (2014) research. The results of surveys carried out by these researchers indicate that the expectations of employees from generation Y towards superiors focus mainly on motivational aspects. According to the respondents, the supervisor should: appreciate the employee's contribution to the achievement of goals, support him/her in innovative ideas, motivate to development and creativity, and openly and often inform about the results of the work. In addition, the manager should base his/her authority on knowledge, professionalism and leadership (Kopertyńska, Kmiotek 2014, pp. 190-195).

Another source of information regarding the analyzed subject matter are studies conducted by M. Kaczkowska-Serafińska (2017). They present similarities and differences between representatives of the Y generation in Poland and Italy in the perception of: the characteristics of dream work, relations with the immediate superior and motivational factors. According to these surveys, both Polish and Italian respondents expect the immediate supervisor to be sensitive to their professional needs, listen to, consider and discuss employee ideas, and treat them with the courtesy and respect. Importantly, the Poles expected from their superior that he/she would solve their problems and help overcome the emerging obstacles to the implementation of tasks, while the Italians emphasized the treatment of employees with courtesy and respect, and the quality and results of the tasks performed by them. The author, analyzing factors motivating the representatives of the generation Y, states that for both Polish and Italian Millennials the most important is job satisfaction, salary received, the possibility of career advancement and balance between personal and professional life. At the same time, respondents from Poland emphasized the importance of a good atmosphere at work, while respondents from Italy - the opportunity to pursue their own ideas and initiatives (Kaczkowska-Serafińska 2017, pp. 244-247).

Particularly noteworthy are the results of cyclical research by the Deloitte company conducted in 14 Central European countries among several thousand people from the generation Y. According to these international comparative studies, representatives of Millennials from Poland, more often than other respondents, expected following things from their future bosses: strategic thinking, charisma and inspiration, influencing the development of employees, inter-personal skills, however, less of them expected advanced technical skills, vision and ethics in business. In their opinion, the leader should focus on employee development, inspire and make hard decisions, but in an atmosphere of dialogue with employees, and be a person supporting new, innovative ideas allowing to create a new product, or a service. A similar opinion on this issue was also given by respondents from other countries (First Steps into the Labour Market 2015, pp.98-99). In the report from 2018 the respondents indicated that their involvement in work is influenced by the recognition of colleagues and the possibility of using new technologies. What is important, for young Poles, a stress limiting environment is an important factor of professional functioning, because they believe that they cannot cope with stress (only 33% of them declared resistance to stress). On the other hand, the respondents stated that they have high information analysis and learning skills (65%), the ability to learn new issues (63%), communicative (59%), and effectively work in a team (59%). At the same time, only 41% of them were able to cope with conflict situations. The weaknesses of Millennials were leadership (37%) and delegation and management of the work of others (40%) (First Steps into the Labour Market 2018, pp.120-125).

The quoted results of the research, presenting the image of the generation Y, indicate many similarities in the description of the expectations of these young people regarding the work environment and the needs related to relations with co-workers, especially superiors.

Methodology of the research

With reference to the information provided about the functioning of the generation Y representatives in their work environment and the expectations expressed by them in this respect, the author carried out her own research. The group focused interviews were aimed at analyzing the opinions of the respondents on the factors affecting the functioning of employees from generation Y in the workplace, including their relations with superiors. The analyzed research material, being the introduction to wider explorations conducted using standardized methods, was acquired in October 2017. Five group focused interviews were conducted, in which a total of 38 people participated. There were 11 women and 27 men between 23 and 28 years of age. A common feature of all interviewees was employment in enterprises operating in the silesian voivodeship and the fact that they were students of the last year of full-time and part-time second-cycle studies in such fields as: computer science, mathematics, mechanics and machine building, and management.

The issues discussed in the group interviews referred, among other things, to the search for answers to the issue relevant to this study: What superiors do the Y generation employees prefer and what kind of relationships they expect at the workplace? Therefore, the study presents the following research questions:

- What is the meaning of good relations with a direct superior for employees of generation Y?
- What are the expectations of generation Y to their superiors?
- What kind of relations would generation Y employees have with their supervisors?
- What characteristics / behaviors of the manager are disturbing in building good cooperation for the employees of generation Y?
- What supervisor's competences related to communication with subordinates are particularly valuable in the opinion of employees from the generation Y?
- Would the studied generation Y people want to be supervisors of teams composed of representatives of their own generation?

Results

At the beginning of the interview, when analyzing the issue of the relations between the employees from generation Y with the superiors, the respondents were asked to determine the importance of good relations with their immediate superior. Respondents showed a large unanimity in this matter, because in most of the statements they attached very high or high importance to these relations. Only a few people indicated that they attach little importance to this. Relations with the superior in the opinion of the respondents were crucial, not only in the aspect of work efficiency, but above all, as the main factor determining the working atmosphere.

According to interviews, representatives of generation Y expect from their superiors mainly activities related to building good relations in the team of employees and shaping a friendly working atmosphere. It was also important for the respondents that the supervisor would be a professional in his/her work, and would be willing to share his/her knowledge with subordinates. The following kinds of importance was also emphasized: leadership skills, competence in motivating and stimulating employees to develop and creativity, as well as strategic thinking abilities.

Respondents in response to the key questions for the subject matter, what relations they would like to have with their superiors, first of all pointed to the importance of the feeling that they are appreciated for the contribution put into the tasks performed and treated with courtesy and respect. As subordinates, they want their suggestions and ideas to be acknowledged, and at the same time they are motivated to develop properly and evaluated fairly. Moreover, the expectations of support in performing professional tasks, as well as understanding in difficult life situations, showing trust, understanding and empathy, are often considered. The surveyed representatives of the generation Y therefore depend not only on treating the superiors with respect, but above all on feeling their own subjectivity and significance at work by emphasizing the work they have put in and appreciating ideas. What is crucial, they want their boss to be supportive, understanding and trustworthy guardian.

The respondents, sharing their remarks about the supervisor's characteristics or behaviors that would prevent them from building good cooperation, indicated many factors, such as:

- disrespect for subordinates, objectification;
- arrogance towards subordinates, exaltation, being “always right”, excessive power demonstration;
- introducing an atmosphere of fear, groundless criticism of employees;
- lack of understanding for mistakes of subordinates and lack of willingness to help them;
- lack of time for subordinates, limited contacts, lack of interest in their problems;
- lack of professionalism, of decision-making, excessive control of employees, favoring selected people;
- conservatism of the supervisor manifested by excessive attachment to organizational rules related to the formalization of dress code, ban on food / beverages at work, etc.;
- nervousness, anger, gruffness, generally negative attitude towards people;
- lack of praise for a job well done, lack of trust in subordinates.

The competence of the superior regarding communication with subordinates was considered particularly valuable in the opinion of employees from generation Y. The respondents emphasized the importance of open and honest communication with the boss. From their superior they expected a clear and precise instructions and frequent and unambiguous information about the results of their work, as well as the ability to listen to colleagues and receive constructive criticism. A good supervisor should, above all, be available and open to interviews with subordinates and often provide them with feedback. Moreover, according to the interviewees, it is important to communicate with young employees not only to use professional vocabulary, but also to use the language characteristic for the recipients and appropriate channels and communication tools.

Considering the fact that more and more representatives of the generation Y are promoted to managerial positions, the issue of how respondents perceive representatives of their generation in the roles of subordinates came into our area of interest. Respondents were asked if they would like to become supervisors of teams composed of representatives of their generation - most of them answered affirmatively. They pointed out positive aspects of cooperation with subordinates from generation Y, mainly related to such Millennials features as: openness to change, good knowledge of modern technologies, creativity, willingness to develop themselves, non-standard approach to problems. In the opinion of the respondents, they would communicate well with such subordinates and it would be easy for them to understand each other. In the discussion, however, there were also negative statements about the perspective of managing a team consisting of Millennials. Justifying their position on this issue, the respondents pointed to various problems they could face, being the superiors of people from their generation. The respondents were afraid of the difficulties involved in engaging the Ys in their work, because, according to them, the Y generation employees are only motivated by money. In addition, they saw the difficulties of cooperation in the lack of respect for superiors, exorbitant financial expectations and a general demanding attitude towards the employer.

Discussion

The conducted research, despite its limitations related to the small number of interlocutors participating in interviews, indicate important issues regarding the expectations of the generation Y representatives related to relations with superiors. According to the respondents, the supervisor should not only be known for his/her professionalism and experience, which he/she shares with subordinates, but above all, understanding, helpful attitude, and what is especially important, good communication skills. In addition, in relations with subordinates, he/she should be open to their ideas, count on their opinion and show confidence, and also apply an individual approach to employees by assigning them ambitious and varied tasks and take care of their developmental needs. Respondents are interested in such a work environment in which they will feel appreciated and have a sense of influence on the ongoing changes.

The information obtained from the conducted interviews correspond with the results of research analyzes and reports published in the literature, which builds a coherent picture of the Millennials' needs in shaping relationships in the work environment. However, in order to better understand the expectations of these young employees one should also refer to the managers' opinions on cooperation with subordinates from the Y generation. The results of research available on this subject indicate that

managers of this generation expect development support in the form of mentoring and coaching combined with regular feedback. In the opinion of managers, lack of sufficient appreciation of the work of these young people, unsatisfactory development opportunities as well as negative relations in the work environment are the most common reason for their leaving the company (Global Human Capital Trends 2014, pp.75-82; Trendy HR 2017, pp. 81-82). According to the superiors of Millennials, their weaknesses include not only lack of professional experience, ignorance of the industry, lack of passion and initiative, low interpersonal skills, insufficient independent thinking, low creativity, low ability to solve unusual problems, low discipline, inaccuracy and insufficient personal culture (Jurek 2014, pp. 127-139).

A comparison of research results, analyzing the expectations of work and employee relations presented by people from generation Y, with the opinions of the managerial staff on the specifics of these young employees, leads to many conclusions but also raises many questions. If we assume that not only managers are responsible for building good relations with subordinates, we need to ask ourselves how to encourage and engage employees from generation Y to active attitudes and actions in this area. How to develop common efforts resulting in a positive atmosphere of work and employee relations that satisfy both the Millennials and their superiors? Answers to these questions are extremely important considering the problems that employers have with commitment to work and often also with making the generation Y employees stay.

Conclusion

The expectations of employees from generation Y regarding work in the workplace and relations with superiors cause that cooperation with these young people being often perceived as very demanding and challenging for the managers of contemporary organizations. Considering the conditions of effective utilization of the potential inherent in these employees, it is necessary to emphasize the key importance of social competence of their superiors. Very important in shaping relationships with the Millennials are the skills of active listening, expressing constructive criticism, as well as empathy and building a cooperation based on trust. Indispensable are the skills to appreciate subordinates and build their sense of importance in achieving organizational goals. Acquiring authority by the superiors and building an atmosphere of cooperation in the subordinate team, based on trust and respect in mutual contacts, seem to be the key to keeping and involvement of generation Y workers. Regarding the issues raised, despite numerous publications, there are still many questions, which can become an inspiration for further discussions and research in this important area of human resource management.

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SOCIAL ECONOMY ORGANIZATIONS AS A CHOICE FOR CAREER DEVELOPMENT OF STUDENTS FROM NON-ECONOMIC FIELDS OF STUDIES

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Abstract: The main aim of the paper is to present the analysis of choices for career development among students from non-economic fields of study. Nowadays, there is a huge debate about entrepreneurship and competences expected on the labour market. People who are graduating from higher education consider different opportunities which can be their future workplaces, including third sector organizations and social enterprises. Social enterprises seem to be undiscovered and underestimated as a place of getting a job and career development. The research was conducted among students of non-economics majors in the University of Lodz, Poland. The authors were seeking the answer to the question of whether the social economy organizations are treated as a potential workplace. The main results of the study confirm that the social economy sector is not a priority as a future choice for career development.

Keywords: non-economic studies, social entrepreneurship, career development

Introduction

The current situation on the Polish labor market seems to be quite stable, as evidenced by e.g. fairly low unemployment rate 6,6% in the end of 2017 (GUS, 2018). On the other hand, Poland, like other countries, should prepare for emerging trends related to the labor market, such as basic income, automation and robotics and their impact of employment (Stewart, De, Cole 2014; Bitner, Starościk, Szczerba 2016) or rapidly changing competences that employees should have. According to Frey, Osborne and Holmes (2016) in OECD countries 57% of jobs are at risk from automation. In Poland, around 7.5 million jobs (45% of all jobs on a labour market) can be potentially replaced by robots and algorithms (Ratajczak, 2017).

Despite the good situation on the employee's market, expectations towards them are growing (e.g. *Oczekiwania pracodawców wobec...* 2016). Employers are looking for people who have both specialist skills and soft skills needed to conduct relationships with others. The condition of people entering the labor market is diversified. While graduates of economic and business studies usually have the opportunity to acquire knowledge about entrepreneurship and management, graduates of non-economic majors have such possibilities rather limited.

The situation on the labor market of graduates ending non-economic studies is different. There are signals from labor market which report that the business is getting open for graduates of humanistic fields of study (Gazeta Prawna 2017) but the general overview for non-economic studies is not satisfactory (e.g. *Wyborcza.pl* 2017).

A competitive job market means that not everyone will find opportunity to develop career life in the planned profession. It results in the necessity to improve skills or to take up employment in other sectors. One of them is the non-governmental sector. The data of employment in NGOs are not so optimistic like for business organizations but they show that there is a potential for this sector of the labour market. Employment in non-profit organizations based on employment contracts was 162 thousand people (1.06% of labour market) whereas employment (employment contracts) in the social sector in Poland is around 462 thousand people (3% of labour market) in 2016. It shows that this sector is nowadays relatively small. It should be noted, however, that social sector in Belgium, France, Luxemburg and Netherlands compared to total paid employment is approx. 9% (Monzón, Chaves 2017, p. 69). We can therefore suppose that this sector will grow especially if Poland economy develops in the way typical for western economies. Also new trends on the labour market can change the current structure of employment in favour of the social organisations.

Literature mentions the most probable three main trends generating jobs in the near future: higher health and education spending thanks to rising incomes and higher spending, healthcare and related jobs because of aging of populations and jobs related to developing and deploying new technologies (Manyika et al., 2017 and MGI, 2017, p.6-7). It could potentially turn people's attention to the

non-profit and social economy sectors: non-governmental organizations and social enterprises, especially those that deal with health problems and elderly people. The aim of the paper was to assess the situation of students from non-economic studies regarding their future job choices in different sectors with special attention on social enterprises.

Methodology and Data

For the purpose of the study a research survey was designed and conducted among students of the 3rd year of bachelor studies and the second year of complementary master studies in non-economic areas majors at the University of Łódź, Poland. The survey questionnaire was made available in December 2017 in the form of an electronic questionnaire. The survey was completed by 134 respondents and the ratio of filled questionnaires to all that enter a survey page was 37%. In order to achieve the research goal, a standard statistical analysis of results was performed, Kendall's Tau-b Correlation Coefficient was used to measure the strength and direction of association that exists between two variables measured on an ordinal scale, Mann-Whitney U test was performed to identify differences in distribution between groups of students.

Results

The majority of surveyed students associated their professional plans with the business sector (48.51%). 22.39% of respondents would like to work in the SMEs sector. 14.18% of surveyed students would like to be employed in corporations. That means that more than 36% of students plan to be an employee in business sector. Almost 12% of them declared to be self-employed. 33.58% of respondents are interested in work outside the business sector. The majority of them would like to work in public administration sector (10.45%) and in the higher education sector (7.46%). Among 17.91% of respondents who responded "other", there are people who do not have specific plans for the future and those who want to work as a teacher. Only 3.73% of respondents plan to work in non-governmental organizations. The research also shows that the fact of combining studies and professional work significantly affect student career plans (p-value 0.025). Group of students who combines studies and professional work more often declared to set up own business and work in corporation than group of students who only studies.

The surveyed students were asked about their preferable factors that determine the choice of employer (see Table 1).

Table 1. Factors determining the choice of employer (where 1 denotes: totally not important; 7 denotes: very important).

No.	Factor	Mean
1	Distance from the place of residence	4.50
2	Easy and fast access to the workplace	4.90
3	Salary	6.28
4	Social package (fitness card, additional health insurance etc.)	4.21
5	Company car	2.45
6	Company mobile	2.42
7	The atmosphere at work	6.04
8	A clear division of responsibilities	6.19
9	Democratic management style	4.84
10	Organizational values consistent with personal values	5.19
11	Social projects run by the employer (sponsoring, volunteering etc.)	3.18
12	Activities for environmental protection	3.41
13	The image of the employer	4.75
14	Opinions of other employees	4.91
15	Opinions of the stakeholders (local community, non-governmental organization etc.)	4.41
16	Honesty and ethical standards compliance by the employer	6.11

Source: own elaboration

The factors determining the choice of employer the most frequently chosen by students are as follows: salary, a clear division of responsibilities, ethical standards compliance by the employer and the atmosphere at work. That means that for students still the most important are work related factor. Despite the fact that majority of factors related with CSR are assessed at relatively low level (e.g. activities for environmental protection, social projects run by the employer), honesty and ethical standards compliance by the employer are one of the most important factors determining students' choices.

In the next question students were asked to declare their entrepreneurship competences (see Table 2).

Table 2. Entrepreneurship competences (where 1 denotes: I do not have skills in that the area; 7 denotes: I do have excellent skills in the area).

No.	Factor	Mean
1	The ability to take risk	4.12
2	The ability to analyse the market / environment	4.12
3	Creativity	5.15
4	The ability to self-improvement	5.55
5	Negotiation skills	4.47
6	Leadership skills	4.60
7	The ability to build a professional network of contacts	4.07
8	Effective management	4.36
9	Cooperation with others	5.25
10	The ability to advise	5.19
11	The ability to identify others' needs	4.92
12	Empathy	5.48
13	The ease of establishing contacts	5.08
14	Communication skills	5.51
15	Striving for perfection and continuous improvement of the effects of their actions	5.68

Source: own elaboration

The winning competences are as follows: striving for perfection and continuous improvement of the effects of their actions, the ability to self-improvement, communication skills, empathy, cooperation with others and creativity. Students generally seem to have a relatively good self-assessment of their competencies and skills.

One the most important questions tried to explore whether students are aware of the social sector organizations (see Table 3).

Table 3. Knowledge and awareness about the social sector (where 1 denotes respondent's opinion the least compliant with the reality; 7 denotes full compliance with reality).

No.	Verified element of knowledge on the basis of the following sentences	Mean
1	In non-governmental organizations people usually work voluntarily	3.49
2	Social entrepreneurship is an organization that does not make a profit	4.07
3	Social enterprises are not competitive with typical business	3.81
4	Social enterprises are a form of social aid	3.68
5	In social enterprises usually people at risk of social exclusion work	3.86
6	Social enterprises do not employ a manager	5.10
7	Social entrepreneurship combines economic and social goals	4.67

Source: own elaboration

The average knowledge of responding students on social economy and non-profit sector seems to be relatively bad – 4 out of 7 means are below the centre of the scale (the centre of the scale is the middle between compliance and non-compliance of answers with the reality). Only 3 sentences were recognized by the respondents more accurately: more students know that social enterprises also employ managers, know that social entrepreneurship means combining economic and social goals and know that such organizations can make a profit.

Questionnaire included also the question about factors which can potentially enable respondents to set up own social enterprise. The factors which may encourage surveyed students to establish a social enterprise are mainly: ability to work with liked people (42.54% of surveyed) and ability to do things that are important and needed in society (41.04%). Facing with new challenges (39.55%), willingness

to help other people (38.06%) and an innovative idea (35.82%) could also make students more inclined to establish own social business. Respondents are less interested in risk avoidance (18.66%) and professional help in establishing their own social enterprises (17.16%).

In the next step of the research authors verified the strength and direction of association that exists between factors determining the choice of employer, entrepreneurship competences and knowledge and awareness about the social sector (see Table 4).

Table 4. Kendall's Tau-b Correlation Coefficient

Factor no.		Knowledge and awareness about the social sector (legend is in table 3)						
		1	2	3	4	5	6	7
Factors determining the choice of employer (legend is in table 1)	1	-0.02	0.00	-0.01	-0.09	-0.14*	-0.07	-0.03
	10	-0.01	0.07	0.07	-0.01	0.03	0.00	0.23**
	11	0.03	0.04	-0.01	0.03	0.03	-0.07	0.16*
	12	0.03	0.13	0.06	0.05	-0.01	-0.04	0.16*
	14	-0.08	-0.15*	-0.09	-0.11	0.11	0.03	0.03
	16	0.05	0.02	0.15*	0.00	0.02	-0.10	0.10
Entrepreneurship competences (legend is in table 2)	2	0.14*	0.14*	0.09	0.16*	0.01	0.09	0.01
	3	0.09	0.04	0.14*	0.03	-0.06	-0.03	0.03
	4	0.17*	0.06	0.00	0.05	0.07	-0.02	0.03
	5	0.15*	-0.01	0.01	0.14*	0.09	-0.05	0.00
	6	0.15*	0.03	0.14*	0.18**	-0.01	0.00	-0.08
	7	0.17*	-0.04	0.05	0.07	0.07	-0.02	0.02
	8	0.17*	0.01	0.04	0.02	0.12	-0.01	-0.02
	9	0.21**	-0.05	0.03	0.01	0.03	-0.02	0.10
	10	0.20**	0.01	0.11	-0.01	0.04	-0.01	0.15*
	11	0.11	0.10	0.17*	0.09	0.02	0.01	0.12
	12	0.13	0.10	0.09	0.01	0.02	-0.05	0.17*
	13	0.17*	0.05	0.04	0.06	0.08	-0.01	0.10
	15	0.14*	0.04	0.03	0.08	0.05	-0.04	0.03

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Source: own elaboration

The most statistically significant correlations, were observed between the entrepreneurship competences factors and the feature of the social sector. In general, students who have higher: ability to analyse the market, ability to self-improvement, ability to build a professional network of contacts, ability to advise, ease to establishing contacts, skills in negotiations, leadership and management are tend to have better knowledge that in non-governmental organizations people can get paid work. Better knowledge about combining economic and social goals in social entrepreneurship is typical for students with higher empathy and ability to advise and those who attach more importance to social activities and compliance of organizational and personal values when choosing employer. Correlations between other factors describing the knowledge and awareness about the social sector and factors determining the choice of employer and entrepreneurship competences are not significant or relatively weak.

Authors also examined if participation in courses aimed at preparation of students to enter the labour market differentiates the knowledge and awareness about the social sector (see Table 5).

Table 5. Test statistics for Knowledge and awareness about the social sector variables

Test Statistics ^a	Knowledge and awareness about the social sector (legend is in table 3)						
	1	2	3	4	5	6	7
Mann-Whitney U	1497.0	1576.5	1638.5	1746.0	1672.0	1152.0	1369.0
Wilcoxon W	6153.0	6232.5	6294.5	6402.0	2413.0	5808.0	6025.0
Z	-1.646	-1.252	-0.934	-0.393	-0.763	-3.410	-2.290
Asymp. Sig. (2-tailed)	0.100	0.210	0.350	0.694	0.445	0.001	0.022

a. Grouping Variable: Have you participated in course aimed at preparation of students to enter the labour market?

Source: own elaboration

Obtained results ($p\text{-value} < 0.05$) suggests that students who participated in course aimed at preparation to enter the labour market had better knowledge in terms of 1) combining social and economic goals in social enterprises and 2) understanding that in social enterprises employ managers than students who do not have such course. In terms of 5 other sentences describing the knowledge of social sector we do not observed significance differences between students participating and not participating in such courses.

Discussion and Conclusion

The conducted research confirmed that graduating students consider different sectors as their future workplaces. What is interesting over half of the respondents want to work outside the business sector. On the other hand only a few people is going to apply for a job in NGOs and social enterprises (3,73%). It support the opinion that third sector is not perceived as an element of the labour market among young people studying non-economic subjects. Additionally respondents have a low knowledge about social enterprises. The weak awareness of social sector is related to the voluntary activities that people are taken in this kind of organizations. It means students associate social enterprises as social aid rather than as typical business It suggests that the concept of social economy is still not properly promoted in Poland. People do not associate social enterprises as possible places for their career development. They are not familiar with structure and characteristics of these kind of organizations.

Future employees have different expectations from employers. They are looking for organizations which, next to the salary, comply with ethical standards and guarantee good atmosphere at work. Greater emphasis on non-wage factors could cause changes in labour market in favour of the social organizations. Despite the fact that there were people from non-economic studies in the surveyed group, they highly assessed their characteristics related to entrepreneurship. It means students have rather positive attitude to their skills and competences regarding the ability to establish, have or develop business organizations. The research results show that the higher assessment of entrepreneurial characteristics the better knowledge about social sector (statistically significant but weak correlation). Study revealed that courses dedicated to labour market orientation and career planning resulted in better understanding of social sector (in 2 of 7 characteristics).

The general conclusion from the research is that economic education should be the part of higher education at non-economic fields of studies. It brings benefits for people who are going to start their professional career in business but additionally it improves the general knowledge about social enterprises and broaden the spectrum of workplaces as future choices.

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INTEGRATING INDUSTRY 4.0 FEATURES WITH QUALITY MANAGEMENT PRACTICES

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Abstract: Industry 4.0 is a recent trending topic which is being widely discussed in research from different perspectives. Industry 4.0 refers to the fourth industrial “revolution”, some literary sources define it as a further industrial “evolution” resulting from the integration of innovative technologies such as the Internet of Things, Cyber-Physical Systems, Big-Data, robotics, artificial intelligence and Cloud Computing with industry. This development gave rise to new techniques to improve different areas of industry. Hence, improved production systems, responsive supply chains, and higher quality products due to instant, massive, real-time quality control systems. Industry 4.0 has a strong impact on different socio-economic fields, thus, several researchers are increasingly focused on addressing different impacts on different areas. For this purpose, it is important to address the impact of Industry 4.0 on improving quality management in industry. Hence, this paper aims at discussing the impact of Industry 4.0 on quality management techniques, such as quality control, quality assurance and total quality management. The paper reviews the traditional quality practices and proposes a modern framework of an Industry 4.0 integrated quality practices.

Keywords: Industry 4.0, quality assurance, Total Quality Management, quality control, intelligent quality control systems, Quality 4.0

Introduction

Known as the fourth industrial revolution, Industry 4.0 became one of the most trending topics in the past few years (MacDougall, 2013). Industry 4.0 was Initiated by the German Government in 2011 as the 2020 high-tech strategy (Zhou, Liu and Zhou, 2016). It came as further development for the past three industrial revolutions. The first, which emerged during the 18th century, based on the mechanical power generated from steam and water. The second revolution, which emerged during the 20th century, endorsed by using conveyors to transfer product between machines, enabling mass production lines to respond to the increasing market demand. At this stage, a single production process was divided into smaller stages, each assigned to a single or a group of labor to capitalize on the experience gained from the repeated work. The third revolution, arise as a result of integrating the programmable logic controllers (PLC), which were invented during the 1970s, advanced the automation of industrial production, and minimized the efforts needed by labor.

Recently, a huge leap occurred in industrial production systems, especially when the industrial companies started to integrate and utilize internet and computer systems in their industries, bringing to stage the Internet of Things (IoT), Big-Data, and Cyber-Physical Systems which became the foundations of the new fourth industrial revolution, known as “Industry 4.0” (Keller *et al.*, 2014; Qin, Liu and Grosvenor, 2016; Zezulka *et al.*, 2016). Industry 4.0 elevated the automation of production to a new advanced level, where machines can collaborate to attain higher efficiency in production systems, enhancing productivity and more customization ability of products. The era of Industry 4.0 is characterized by the use of the Internet to connect machines together like in a social network. Cyber-Physical Systems and Artificial Intelligence extended the ability of the production systems to reallocate and reorganize itself virtually and instantly to respond to any prompt changes requested by stakeholders in the value chain.

In addition to industry itself, Industry 4.0 had many significant consequences on several other socio-economic fields, such as developing new businesses and services models, generation of new types of complex, smart services and products, modern business management systems, collaborative and interactive work environment, which in total led to major changes in the required human skills, as well as in the demographic and social life (Pereira and Romero, 2017).

Witkowski (2017) examined the impact of utilizing Industry 4.0 techniques, including Big-Data and Internet of Things, as innovative approaches to supply chain management. He concluded that Industry 4.0 created opportunities to develop logistics and supply chain management, hence, meeting customers' needs and improve lead time and service delivery.

Mrugalska and Wyrwicka (2017) examined the impact of Industry 4.0 on lean production techniques. These techniques were successfully challenged in an Industry 4.0 integrated mass production environment. Industry 4.0 helped to eliminate waste during production, eliminating everything that does not add any value to the product.

Kuo *et al.* (2017) installed sensors and utilized simulation and artificial intelligence techniques to design and implement an automatic machine status prediction model, that predicts machine status and diagnose any quality defects due to machining failures. This resulted in a cost-effective solution for monitoring the production process to improve quality of products using Industry 4.0 technologies.

Moreover, Albers *et al.* (2016) suggested a three-phase procedure for identifying and running an Industry 4.0 intelligent quality control system, within which a single production process was analyzed to identify quality related production issues that shall be addressed with an intelligent condition monitoring based quality control system. This procedure is important to help industries to move forward in developing their industry 4.0 based quality control systems.

Industry 4.0 became the umbrella for several innovative technologies such as Cyber-Physical Systems (CPS), Internet of Things (IoT), Big-Data, and Cloud Computing. As a result of integrating these technologies in the industry, new capabilities and possibilities reinforced the traditional quality techniques and improved the effectiveness and efficiency of production systems. The aim of this paper is to discuss the impact of Industry 4.0, on quality management practices such as "Quality Assurance", "Quality control", and "Total Quality Management". The first chapter will highlight the key features of Industry 4.0 which are relevant to the topic of this research work. a review for quality management practices, and then discuss and conclude the impact of Industry 4.0 on improving quality management practices.

Literature review

Industry 4.0 Features and Technologies

Industry 4.0 came as a result of the advancement occurred in information and communication technologies (ICT), and the integration of this sector with industrial technologies, establishing the so-called: "Cyber-Physical Systems", introducing the "Intelligent Factory" (Zhou, Liu and Zhou, 2016), where machines, products, and human became able to interact and communicate to each other (Husti, Daroczi and Kovacs, 2017). This advancement boosted digitization and automation in the manufacturing environment, created a digital value chain which eliminated boundaries between digital and physical worlds (Pereira and Romero, 2017).

There are several features that characterize Industry 4.0, these are interconnectivity, integration, and big-data (Wang, He and Xu, 2017). *Interconnectivity* refers to the ability of the products to communicate with the production system across the value chain. By reading the product information, the production system can transfer this information to the Cyber-Physical System, simulate and iterate scenarios, to achieve an optimum production scheme (Wang, He and Xu, 2017). Machines that are interconnected to each other can be informed when the part being produced has passed from a previous operation, thus, following machine will become ready to receive the part to continue further production stages. Logistics will also be informed when it is needed during the production process (Blanchet and Rinn, 2015).

Horizontal integration refers to the technological and information collaboration and cooperation between resources among the value chain, from the supplier till the end customer which resulting real-time services and products (Zhou, Liu and Zhou, 2016). *Vertical integration* refers to the integration between departments and different business units inside the organization, including marketing, research, and development, financial, logistics and sale departments etc. (Pereira and Romero, 2017). *End-to-End integration* is the total integration of the entire business units, performing a decentralized system where all participating entities have real-time access to information and control orders are distributed to the production floor instantly (Keller *et al.*, 2014).

Big-Data is the technology which is used to store and analyze the huge amount of data which is generated, gathered and stored from several sources. Big data can deal with such huge volume of data and can transform this data into useful and user friendly information. Big data is used widely now as a decision supporting system, where data, despite its volume, variety, velocity, and value, is deeply analyzed, visualized and presented in clear format to be understood by managers (Witkowski, 2017).

Industry 4.0 is characterized by three paradigms: *smart machine*, *smart factory* and *augmented operator*. A smart product has the ability to interact with the machining processes, transfer operational data and manufacturing requirements which is stored in a small memory chip fixed to it. A smart machine has a decentralized, self-organization capabilities, which allowed the machine to locally control itself and collaborate with other machines connected to the same network. An augmented operator does the monitoring, verification, and interferes when needed to enhance the production strategy (Mrugalska and Wyrwicka, 2017).

Figure 1 below summarizes the key features and the abilities offered by these features to improve production systems.

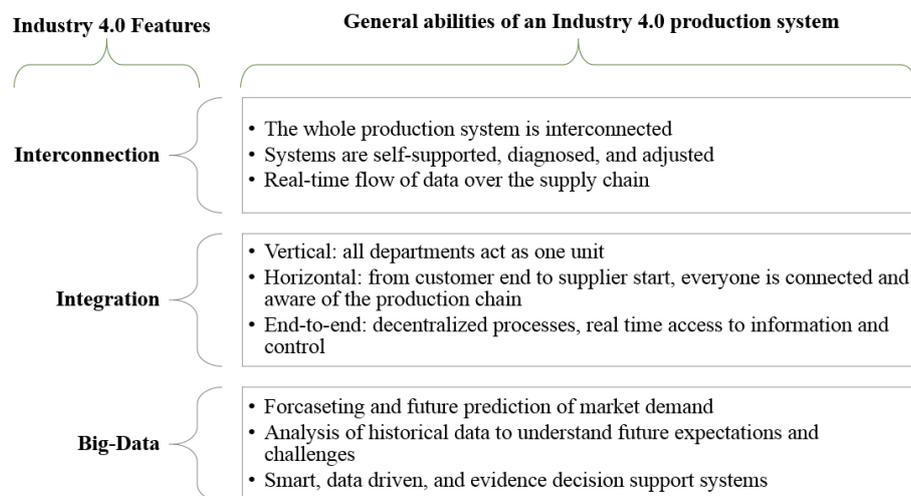


Figure 1. Capabilities offered by Industry 4.0 Key features

Source: Own work

Industry 4.0 aims to obtain a flexible and automatic adaption of the value chain, to offer the ability to customize products and maintain mass production at the same time, and to facilitate communication among all production elements; products, machines, human, and resources. Furthermore, it aims to optimize production and to provide an advanced level of interaction and coordination between different resources (Blanchet and Rinn, 2015).

Quality Management

Quality has been used as a strategic weapon for businesses to attract and retain customers and to obtain a competitive advantage for the organization. Kanji (1990) defined quality as “conformance to requirements, where requirements are defined as the task to be accomplished in meeting customer needs”. Organizations are seeking customer satisfaction by providing services and products that fulfill or exceed customer expectations (Foidl and Felderer, 2016). For manufacturing firms, it is important to increase product’s competencies, reduce the cost of failures, and improve effectiveness and efficiency (Foidl and Felderer, 2016). Quality is a continuous approach for organizations and should be always practiced in order to maintain the organization’s competitive position. Employees must be motivated to maintain a high-quality level of their work.

There are several approaches to Quality Management, such as Quality Control, Quality Assurance and Total Quality Management (Kanji, 1990). Total Quality Management (TQM) has been used as an approach to produce high-quality products that meet or exceed customers’ expectations (Yusof and Aspinwall, 2000). TQM helped countries like Japan to occupy a leading global position in terms of products’ quality and business excellence. Few years after the second world war, Japan became the world’s bright star when talking about the quality of products.

Methodology and Discussion

The aim of this chapter is to discuss the impact of Industry 4.0 on improving quality management practices. A theoretical model is suggested to integrate Industry 4.0 features and paradigms with quality management practices.

Integrating Industry 4.0 with Quality Management

Albers *et al.* (2016) summarized the influence of Industry 4.0 on the industry from a quality perspective, studies reported a 50% increased productivity and 80% of companies used Industry 4.0 indicated its impact on increasing efficiency, 45% believed that Industry 4.0 improved customer satisfaction due to eliminated defected products.

Industry 4.0 offered many capabilities for quality management practices, the technological advancement provided new techniques to ensure the quality of the products, new inspection tools, new failure early detection methods, and self-adaptation possibility which enabled the production facility to re-design its production lines to respond to customers' requirements, fluctuating demand, or to avoid machine failure or downtime.

Interconnectivity as a key feature of Industry 4.0 provided the ability to the production system to be more flexible, as the entire system is interconnected, and every part of it is aware of what is happening at the other parts. Moreover, the real-time flow of information from machines, facilities, and among labor to and from the factory management made the decision-making process more effective, reliable and prompt.

With horizontal, vertical, and end-to-end businesses integration, departments and business units can act as one integrated unit internally, and externally with suppliers and customers. Information from the customer end to the supplier is flowing smoothly, orders of customers are transferred instantly among the value chain, notifying involved parties about it, customers are able to monitor their product being made in real-time and they can provide further customization when needed. Collaboration among different managerial and operational departments enhanced the coordination and resulted in a dynamic and effective working environment.

Big-Data which being gathered from ERP systems, sensors, statistics and social media, are being processed and modeled in order to provide sufficient and useful visual information that can be used for several quality purposes. For instance, historical data about customers' behavior could be used to improve production schemes to handle fluctuating demand and make a balance with other production schemes. Moreover, Big-Data can be used to develop artificial intelligence models to provide the ability of the machine to make an instant decision at the production floor, it could alert operators to make recommended actions such as predictive maintenance or better production arrangements.

Quality management has never been as smart as when utilizing Industry 4.0 features. *Figure 2* represents the flow of information, data and operational orders from and to the production level. Information is streamed from the customers' and markets' ends to the Big-Data themes, where it is being analyzed and transferred to the production systems as production orders containing instruction, specifications, and volumes. The production system will transfer the received orders automatically from the ERP to the CPS to suggest the optimum production schemes, where processes re-allocation could occur based on new production orders. During the production, sensors are transferring data to the big-data and ERP systems, this data include raw-material requests, maintenance requests, and production analysis. Any instant changes occurring during the production will be analyzed instantly, and responses are sent automatically to relevant parties.

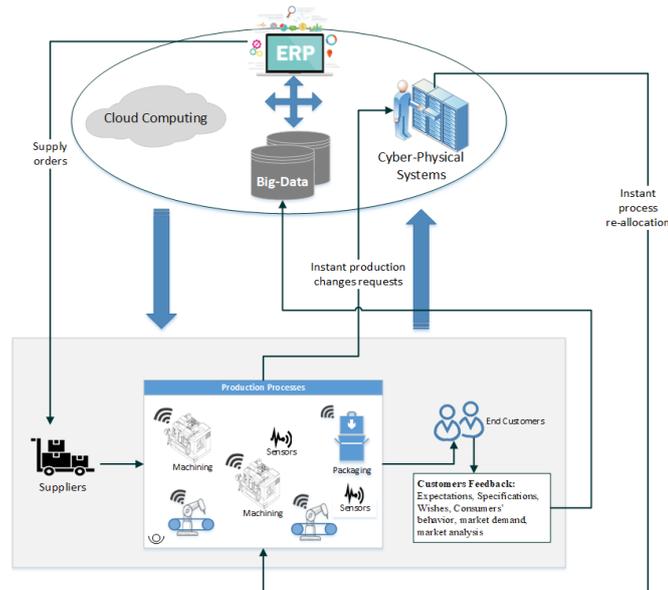


Figure 2. Integration of Industry 4.0 technologies in the value chain

Source: Own work

From a quality management perspective, sensors and in-process quality control devices will send real-time information to global big-data systems, and locally within the smart machines. Accordingly, making proper decisions to avoid defects, system failure or downtime. Production is optimized by applying lean manufacturing, and supply chain management techniques.

The production system can communicate with the ERP and CPS to analyze the production schemes, define production priorities, and align resources. The real-time quality inspection will help to ensure that quality requirements are being fulfilled, and any causes of defects or production failures are avoided and eliminated.

The Industry 4.0 – Quality integrated system will enhance production, provide confidence that all quality requirements are fulfilled, and total quality management practices are all realized. Within such system, the cost of quality will be minimized, as defective products will be early detected, communication with end customer is effective and the production system is responsive to market demand.

Conclusion

It is obvious that Industry 4.0 has an important potential to enhance quality management approaches. Quality control and quality assurance are backed by the features and capabilities offered by Industry 4.0. The following are the main contribution offered by Industry 4.0 to such enhancement, as summarized from reviewed literature and the followed discussion in this research work:

- Developing real-time monitoring and premature failure prediction systems.
- In-process intelligent quality assurance systems which enabled total inspection for products.
- Data analysis and visualization of information which facilitated evidence-based decision making.
- Enhanced integration of the production systems, from suppliers to the end customer, which minimized product lead time, increased responsiveness and improved customer satisfaction.
- Optimized lean production systems, and the ability to produce customized products for different customers' demands.
- Optimizing supply chain and logistics management strategies.
- Provided bases for successful implementation of Total Quality Management practices.
- Minimized cost of quality due to early defect detection (quality control) and early elimination of defects' causes (quality assurance).
- Reliable, smart, dynamic planning techniques due to rich decision supporting systems and visual information provided by ERP, Big-Data, and CPS.
- The dramatical change from traditional to smart (product, factory, and augmented operator) production systems, which enhanced productivity and minimized defects.

All the above-mentioned implications of Industry 4.0 on production systems are supposed to influence the quality management strategies and will obtain new methodologies to Quality Control, Quality Assurance, and Total Quality Control. However, future research could contribute more to find new implications and examine the impact of Industry 4.0 in quantitative approaches.

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THE APPLICATION OF GENERATION MARKETING IN HONEY MARKETING MANAGEMENT: EMPIRICAL STUDY IN SLOVAKIA

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Abstract: The aim of the paper is to apply generation marketing in the development of strategies in honey marketing. The research is based on primary data obtained by questionnaire surveys conducted in 2018. The research sample contains 1,100 honey consumers living in the Nitra region. The questionnaires were distributed online via emails and social media, as well as in paper version. Besides descriptive statistics, chi-square test of independence and Mann-Whitney U test have been applied. The results showed significant differences among generations in terms of their preferences, consumer and purchasing behaviour. Beekeepers should consider these differences when designing marketing mix strategies. In promotion strategy, they should consider the establishment of event marketing, including excursions to apiaries, observation of hives, honey festivals, seminars with honey tasting or honey breakfast at schools.

Keywords: honey, consumer behaviour, generation marketing, Slovakia

Introduction

Each generation of consumers possesses unique needs, wants, desires, opinions, values or vision, therefore marketers or even companies should not treat them in the same way and should consider the existing differences. Segmentation based on age cohorts - generation is frequently used mainly due to the fact that consumer's needs, wants, desires differs by age. Nowadays, average life span is increasing in many countries and population aging create new opportunities for many companies and retail stores (Hoskisson et al., 2008). Generation marketing divides age cohorts to many categories and uses various names such as toddlers, small children, teenagers, adults, Baby boomers, Generation X, Generation Y, and Generation Z. It represents an important tool in marketing for identification of market potential (Lamb et al., 2009). Eventually, age cohorts - generation explains how a certain age group has the same needs and desires based on common experiences, skills and practises caused by living and bringing up in the same period. The people of the same generation were influenced by the same social factors, and their lifestyle, opinions, and values were shaped by the same historical and social events (Ting et al., 2017). Segmentation based on generations were applied in many countries, however the most interesting generation division is in the USA where consumers were divided into following age cohorts:

Baby boomers – born between 1946 – 1964 with inclination to values involving family, health, responsibility and work. Some of them are still employed even during their pension. The most suitable communication is verbal with simple facts. Consumers of this generation believe in opinion and recommendations from specialists. In advertising, they are more attracted by text than pictures. This generation is price-sensitive and not attracted by luxury or prestige products. (Williams, Page, 2011).

Generation X – these consumers were born between 1965 – 1977 with inclination to high quality, premium price, personal satisfaction and enjoyment. In terms of technology, they prefer mobile banking, online shopping (Berraies, Yahia, Hannachi, 2017) and enjoy searching and surfing various offers on the internet. This generation is more technically oriented and focuses more on product properties and its utility. During purchase they use traditional decision – making methods with risk avoidance (Lissitsa et al., 2016).

Generation Y – born between 1978 – 1994, also called Millennials. Consumers' psychological and cognitive needs were influenced by technology and most of their communication is via internet and social media. Generation Y is faster informed than older age cohorts and tries to be more independent. Moreover, they have own vision of a new world and wants to change traditional approaches to innovative ones (Verma, 2017).

Generation Z – consumers born in 1995 and later. These are consumers born in the digital age with inclination to virtual reality and the online environment. Mostly oriented on new technologies, retail stores or brand loyalty. This generation is mostly characterised as innovative and creative with strong desires for experiences filled with enjoyment. Often seeking to feel safe by running from the real world to virtual reality (Priporas, Stylos, Fotiadis, 2017).

Methodology

Consumer research, mapping complex consumer behaviour on honey market, was based on questionnaire survey conducted in the period of December 2017 – February 2018. Survey was focused on honey consumers between 18 – 70 years living in Nitra region. The representative sample size of 1100 respondents was estimated on regional level according to the age structure of Nitra region with an acceptable margin of error $\pm 2.95\%$ at a confidence level of 95%. Questionnaires were distributed both in printed and online version via emails or social media (Facebook). Obtained research sample contains 57.2% females and 42.8% males with secondary (51%) and higher (49%) education living in the city (62.2%) and village (37.8%) obtaining monthly netto salary: 30.5% up to 400 €, 23% 401 – 600 €, 18.4% 601 – 800 € and 28.1% more than 800 €. According to the economic activity, 50.5% are employed, 15.7% pensioners, 21.3% students, 8.9% entrepreneur/ freelancers, 2.1% on the maternity leave and 1.5% unemployed. Household structure: 32.5% living with spouse with children, 28.3% with parents, 21.1% with spouse/ partner without children, 13.1% live alone and 5.1% live only with children. According to the age cohorts, respondents were divided into four categories: 11.8% Generation Z (18 – 24 years), 33.6% Generation Y (25 – 40 years), 20% Generation X (41 – 50 years) and 34.6% Baby boomers (51 – 70 years). Obtained data were processed and analyses in statistical software SAS Enterprise Guide 7.1.

The following statistical tests were applied:

- Chi-square goodness of fit test
- Chi-square test of independence
- Mann-Whitney U test

Formulated hypotheses:

H1: There exists dependency between annual consumption of honey and selected demographic variables (gender, age, education, place of residence)

H2: There exists dependency between consumption frequency of honey and generations

H3: There exists dependency between purchasing behaviour and generations

H4: There exists dependency between honey preferences and generations

H5: There exists dependency between the preference of selected flavoured honey (honey with cacao and nuts) and generations

Results

Representativeness of the sample was tested by Chi-square goodness of fit test and the results showed that research sample is representative regarding the age structure of Nitra region. According to the first hypothesis, based on the chi-square test of independence, only the age has statistically significant impact on annual honey consumption ($p\text{-value} = <.0001$). It could be stated that Baby boomers and Generation X consume higher amounts of honey than Generation Y and Z (see. Fig. 1).

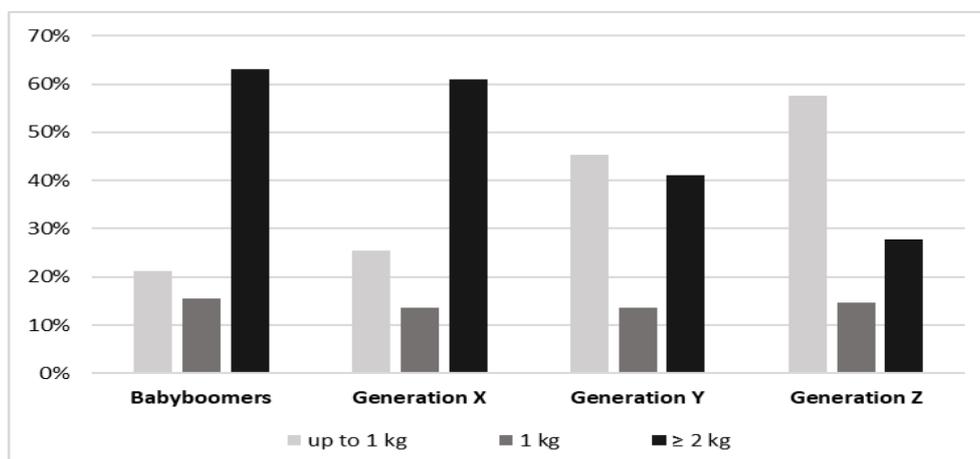


Figure 1 Annual consumption of honey according to generations

Source: questionnaire survey, 2018

Furthermore, the second hypothesis was proven as well ($p\text{-value} = <.0001$). It could be concluded that the consumption frequency of honey is higher in the case of Baby boomers and Generation X than Generation Y and Z. The lowest frequency indicates Generation Z – consumers between 18 – 24 years (see Fig.2).

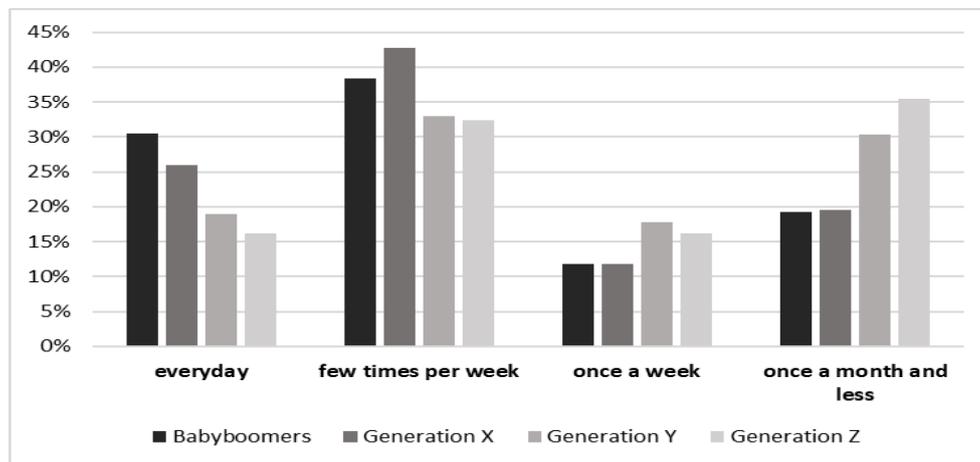


Figure 2. The consumption frequency of honey according to generations

Source: questionnaire survey, 2018

By applying Chi-square test of independence and Mann-Whitney U test, the following hypotheses were confirmed: H3 (purchase habits – $p\text{-value} = <.0001$; purchase frequency – $p\text{-value} = 0.0151$ and amount of purchased honey – $p\text{-value} = 0.0111$), H4 (honeydew honey – $p\text{-value} = <.0001$; creamed honey – $p\text{-value} = <.0001$ and trademarks – $p\text{-value} = 0.0006$) and H5 honey with cacao – $p\text{-value} = <.0001$ and honey with nuts – $p\text{-value} = 0.0281$). Based on all 5 hypotheses, it could be concluded that there exist statistically significant differences regarding the consumer behaviour, purchasing behaviour and preferences between generations. By applying contingency tables, four age segments - generations were characterised and profiled.

Babyboomers

The first segment comprises mostly pensioners or employed people between 51 – 70 years, with secondary education, earning monthly salary up to 600 € in netto per month and situated in a household with a spouse without children or living alone. Baby boomers are daily consumers of honey with annual consumption equal or more than 2 kg. Honey is consumed throughout the whole year, both in the morning and evening as a sweetener to beverages or in pure form directly from the jar. Honey is used as food as well as medicine. Regarding the purchasing behaviour, this cohort represents regular buyers who prefer to make honey reserves by purchasing 2 and more kg of honey per purchase. The most important criteria during purchase are quality and country of origin as the majority of the cohort is aware of frequent adulteration of imported honey and prefer to buy honey with the trademark “Slovak honey”. The least important are packaging and price. In terms of preference, the segment mostly prefers acacia, linden, as well as honeydew honey with which they have positive attitude. As for flavoured honey, they showed positive preference to honey with ginger and honey with nuts as well as to creamed honey which is a special form of honey. The most frequent place of purchase is beekeeper and farmers' markets with optimal price 6 € per kg. Pharmacies and hospitals are also considered as possible places for honey purchase. Baby boomers gain information about honey mostly from beekeeper, family, acquaintances and friends, internet and press, while honey promotion is frequently found at exhibitions, fairs, farmers' markets, honey degustation, internet (webpage, blogs and vlogs) and television.

Generation X

The second segment is represented by employed respondents between 41 – 50 years with secondary education, earning more than 800 € in netto per month and living in a household with a spouse and children. A typical member of generation X consumes honey few times per week which represents 2 and more kg per year. Honey is consumed all the year, both in the morning and evening in form of sweetener in beverages or directly from the jar. Moreover, honey is beside food also used as medicine.

Generation X belongs to regular buyers of honey and purchases honey if necessary or makes honey reserves. The typical amount of honey bought is 1 kg or 2 – 5 kg per purchase. The most important criteria during purchase are quality, taste and country of origin, while packaging and price are the least important. This age cohort is mostly aware of adulteration of imported honey and prefers to buy honey with the trademark “Slovak honey”, which ensures high quality and Slovak origin. From monofloral honeys this segment prefers mainly acacia honey, linden honey and has a positive attitude towards honeydew honey. Regarding the flavoured honey, the strong preference exists in case of honey with nuts, honey with pollen, honey with honeycomb. Creamed honey is known by the majority, however only one third is purchasing this form of honey. Generation X mostly prefers to buy honey directly from beekeepers or at farmers' markets with optimal price 7 – 10 € per kg. Pharmacies and vending machines were mostly indicated as opportunities for preferred purchase places. The most frequent source of information about honey are beekeeper, family, acquaintances and friends, internet and festivals or exhibitions while the main source of promotion are exhibitions, fairs, farmers' markets, honey degustation and social media (Facebook, Instagram...), internet and local posters or billboard.

Generation Y

The third segment includes employed or studying respondents between 25 – 40 years with higher education, earning either more than 800 € or up to 400 € in netto per month and living in a household with parents. Generation Y is characterised with less frequent consumption of honey, which means the annual consumption of honey is 1 kg and less. Honey is consumed mostly during winter involving Christmas, both in the morning and evening. The most frequent form of consumption is as a food additive in a form of sweetener in beverages or spread. Only one third of this segment regularly purchase honey either 1 kg or 2 – 5 kg per 1 purchase, mostly if necessary or makes honey reserves. The most important criteria are quality, taste, country of origin and the least are packaging and price. More than a half of respondents is not aware of honey adulteration and do not know about the trademark “Slovak honey”. In terms of honey preference, acacia and linden honey are preferred the most. What is interesting, most respondents from this segment have a neutral attitude towards honeydew honey or do not know this type of honey. From flavoured honey, the most preferred are honey with nuts, pollen, honeycomb, or honey with cinnamon, while creamed honey is unknown for most respondents. In general, honey is frequently purchased from a beekeeper, at farmers' markets or in retail stores with optimal price 7 – 10€ per kg. Generation Y would prefer to buy honey from pharmacies or vending machines. Information about honey is obtained mainly from family, acquaintances and friends, beekeeper, internet and festivals or exhibitions. The most frequent form of honey promotion is observed in exhibitions, fairs, farmers' markets, honey degustation, social media (Facebook, Instagram...) and internet.

Generation Z

The last generation involves mostly students between 18 – 24 years with secondary education (unfinished higher education), earning up to 400 € in netto per month and living with parents. This age cohort represents consumers with the lowest frequency of consumption where the yearly consumption is less than 1 kg. Respondents mostly consumed honey as a food additive during the winter both in the morning and evening in a form of sweetener in beverages or spreads. Generation Z mostly does not purchase honey, because the other member of family does it. However, those who purchase honey, prefer to buy 1 kg of honey once in 3 months. The purchasing criteria are the same as in case of Generation Y. The majority of respondents are not aware of honey adulteration and does not know the trademark “Slovak honey”. The most preferred monofloral honey is acacia and linden honey. Honeydew honey has neutral image or is unknown for this segment. Interesting results were obtained in terms of flavoured honey, where the most preferred ones are honey with cinnamon, cacao and coconut. Generally, the creamed honey is unknown to this generation. Honey is purchased directly from a beekeeper, at farmers' markets, retail stores or at specialty food stores with optimal price 7 – 10 € per kg. The possible place of purchase would be pharmacies or vending machines. Generation Z mostly gains information about honey from family, acquaintances and friends, beekeeper, internet, festivals or exhibitions. The most frequent form of promotion are exhibitions, fairs, farmers' markets, honey degustation, internet, local poster and billboards, social media (Facebook, Instagram...) and leaflets and brochures.

Discussion

Several studies regarding honey consumers apply market segmentation according to various determinants. For example Romanian study identified three clusters: the common honey consumers who consume honey as staple product, the younger consumers indifferent to honey and enthusiastic consumers who search honey for its healing properties (Krystallis, Petrovici, Arvanitoyannis, 2007), while authors Pocol and Marghitas (2008) divided honey consumers in Romania according to attribute importance such as natural product, sweet taste or medical benefits. Another study in Ireland segmented honey consumers in term of price and purchasing criteria involving packaging, texture, colour and utility (Murphy, Cowan, Henchion, O'Reilly, 2000). Segmentation based on the purpose of use revealed four clusters: multi-purpose group, cooking group, beverage group and breakfast group (Batt, Liu, 2012). In addition, Italian consumers were grouped according to their attitudes towards honey into the following categories: environmentally friendly consumers, prointensive production consumers and organic consumers (Cosmina, Gallenti, Marangon, Troiano, 2016). The only research mapping consumer behaviour regarding honey and segmenting consumers involving age categories was conducted in Romania (Arvanitoyannis, Krystallis, 2006), however, neither of the above mention research focused on age cohorts and generation marketing. In general, generation marketing provides deeper understanding of consumers, and honey producers can better target their customers and tailor marketing strategies more effectively.

Conclusion

The study highlights differences between four age cohorts – generations in terms of honey preferences, consumer and purchasing behaviour. Baby boomers and Generation X represent frequent honey consumers with annual consumption equal to 2 and more kg who regularly purchase honey and prefer to buy 2 – 5 kg per purchase. These generations are aware of high honey adulteration, therefore they search for honey with the trademark Slovak honey, which declares higher quality and Slovak origin. In terms of honey preference, besides acacia and linden honey, they have a positive attitude towards honeydew honey and creamed honey. From flavoured honey, they prefer honey with ginger, nuts or pollen. They prefer to buy honey directly from a beekeeper or at farmers' markets and consider pharmacies as possible place of purchase. Generation Y and Z represent less frequent or occasional honey consumers with the annual consumption up to 1 kg. The majority of consumers do not purchase honey and are not aware of honey adulteration. The most important criteria during the purchase is quality and taste. They prefer acacia and linden honey and do not know creamed honey and have a neutral attitude towards honeydew honey. From flavoured honey, they prefer honey with cinnamon and cocoa. Beekeeper, farmers' markets and retail stores are typical places of purchase while vending machines or pharmacies are considered as the possible place for purchase in the future. All generations obtained information about honey from family, acquaintances and friends, beekeeper and internet while the most frequent way of honey promotion are honey degustation and exhibitions, fairs, farmers' markets. It could be concluded that honey producers in the Nitra region should consider the differences between these generations and implement it to their product, price, distribution and promotion strategies. Moreover, they should focus more on younger generation (Generation Z) who consumes a lower quantity of honey. It is recommended to use promotion, providing experience and added value in a form of event marketing which involves honey festival, seminars with degustations, excursion to apiary, observation hives, honey sampling and honey breakfast in schools with educative character.

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BRAND MANAGEMENT IN UNIVERSITY MERGERS

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Abstract: University mergers are a time of change and fundamental choices, including the area of brand strategy. A global race for prestige, reputation and place in global rankings favours the development of marketing activities in the academic world. Universities create completely new brands in merger processes, such as the case of Université Grenoble Alpes, Aalto University - the most frequently described in Finnish literature and many others. In merger processes, universities use concepts of marketing communication, brand management and organizational identity. This is part of a more general trend related to the economization of social life, and consequently the expansion of management concepts and methods. The aim of the article is to show the role and importance of the university's brand in the process of mergers of higher education institutions. The article is of an overview nature. It provides a review of subject-related literature. The theoretical considerations undertaken in the article will be the starting point for further in-depth research on the importance of the brand in the process of a university merger.

Keywords: brand, university mergers, brand management, university management, higher education sector

Introduction

Brand management in the university merger process is of strategic importance from several points of view. The international and national recognition of universities for students and other external stakeholders depends, among other things, on the university brand. In international and national rankings, consolidated universities, that were previously separate institutions, operate under one name. The name of the university creates its image by providing a message that reflects the identity of the university. Cultural character of the university brand is connected with giving the identity to the organization itself, its employees as well as building the external image of the university (Sułkowski, Seliga, Wozniak 2016). Building reputation through intensive communication, marketing and activities related with internal branding (employer branding) is gaining importance in the academic world. Brand and image are concepts close to reputation, they are also associated with culture and organizational identity (Aula, Tienari 2011). All these areas of the organization's activity are subject to profound transformations in the processes of mergers and acquisitions. The area of the brand, although it is important for various aspects of the organization's operations, is most often analyzed on the grounds of marketing.

The aim of the article is to show the role and importance of the university's brand in the process of merger of higher education institutions. The article is of overview nature. It provides a review of the literature and positions contained in the literature on the subject. The theoretical considerations taken up in the article will be the starting point for further in-depth research on the importance of the brand in the process of a university merger.

The content of the article is based on examples from the qualitative research carried out as the case studies. The conclusions from the case studies carried out largely reflect the situation that takes place in commercial sectors not related to the higher education sector. Due to the novelty of the issue of the brand in mergers in higher education, there is a lack of representative studies in the literature on the subject. Therefore, this article is a conceptualization of the problem of university brand strategy in the processes of mergers in the higher education sector and is a starting point for further, representative research on this topic.

The importance of the brand in the university management process

The brand in the era of internationalization of the higher education sector is an important element of building the image and trust of stakeholders of the entire higher education system. Starting from the definition of the brand itself, it can be linked, in higher education, with the name of the university itself functioning as a hallmark for stakeholders.

By attempting to analyze the literature on the subject one can see a multi-faceted approach to the brand definition itself. The very concept of a brand is very often combined with another concept - a trademark.

A brand, according to the American Marketing Association (AMA), is "a name, term, design, symbol, or any other feature that identifies one seller's good or service as distinct from those of other sellers" (AMA).

It can be stated that the brand fulfills the function by which institutions can distinguish their products or services.

More and more often, clients who make the decision about choosing a university take into account the value of the brand, the benefits that may result from receiving a graduation diploma. The Aaker model can be used to verify the value of the brand (Figure 1). This model assumes five basic elements related to the brand's value: brand relationships, other brand-related assets, loyalty, brand awareness and perceived brand value.

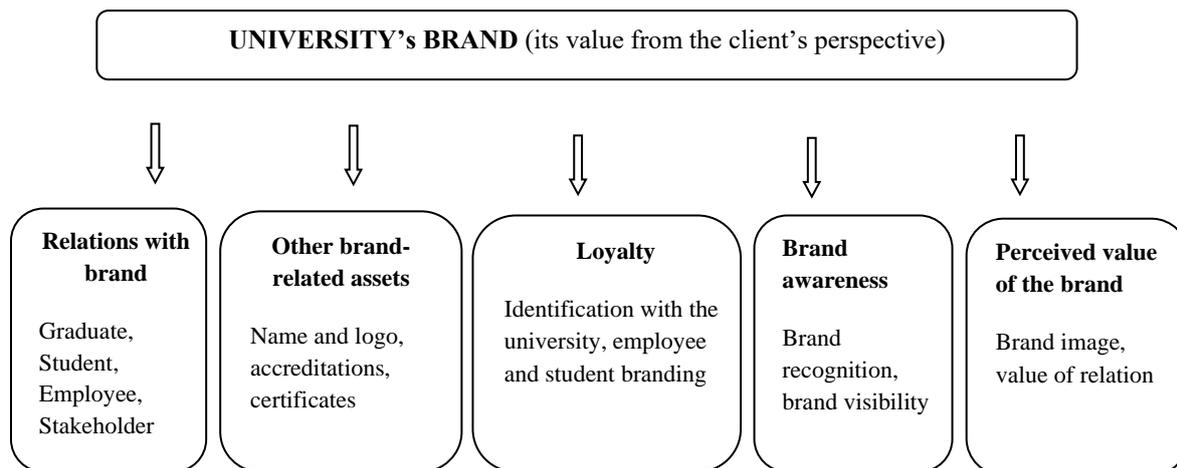


Figure 1. Aaker's model for universities - brand perception from the client's point of view

Source: modified D.A. Aaker, *Managing brand equity*, Free Press, New York, 1991

Other assets related to the brand - these are added features that the brand has, for example certificates, accreditations, signed cooperation agreements. The name, logo and brand are reinforced by accreditations and certificates.

Loyalty is manifested in the attachment to the university through brands directed to the society, students and employees that shape ties with the university. More and more, universities implement loyalty programs among students and graduates.

Brand awareness - the brand recognition, the number of associations with a given brand are analyzed (the bigger the stronger the brand's position - in the case of universities, these may be such features as: very good quality of education, a recognized diploma in the labor market, good study conditions, qualified scientific and didactic staff etc.), but also for example a well-known sports team.

Perceived value of the brand - in this case the perception of the university as an institution that offers products and services of a corresponding quality is measured. Very often, the perception of the quality of education at a given university is a determinant of the choice of this and not a different university (Sulkowski, Seliga, Wozniak 2017).

To a large extent, the position of the brand depends on the way in which consumers perceive the quality of a given brand, its advantages and disadvantages, price and value (Dibb, Simkin, 1993, Ries, Trout 1993). It can be noticed that more and more often producers of the highest quality products must introduce elements that distinguish their product from the ranks of the growing number of international brands (Agrawal i in. 2011, Morhart, Herzog, Tomczak 2009, Henkel i in. 2007, Kaufmann, Cajthaml, Meier 2007). This is also the case in the higher education sector. Universities are seeking to obtain international accreditations from foreign, sectoral and international partners in order to stand out from other schools on the market (Hogan, Lucke 2006). Higher schools study the satisfaction of students and graduates regarding, for example, the quality of education or conditions at the university by means of quantitative methods (e.g. surveys) and qualitative (e.g. in-depth interviews). The research results are used not only to verify the university's management methods, but also to evaluate the effectiveness of marketing activities carried out by specialized organizational units.

The university's brand also has a direct impact on the university diploma. In the literature of the subject, attention is drawn to the four terms of the brand, which can be successfully applied to both the university's brand and its diploma. According to D. Antonowicz, M. Krawczyk-Radwan, D. Walczak, the brand can be distinguished as: a utilitarian sign, a commercial sign, a social and cultural sign, a sign that reflects a certain symbolic, but also mythical value of the product (Antonowicz, Krawczyk-Radwan, Walczak2014).

In the practice of management, four basic brand strategies can be distinguished:

1. Individual brand strategy.
2. Family brand strategy.
3. Common brands for product groups.
4. Mixed strategies.

Individual brand strategy is characteristic for individual products with separate brands. In the brand family strategy, all products of the company enter the market under one brand - it is a strategy of low costs of brand functioning. Common brands for groups of products is a strategy based on entering a group of products under one brand. The mixed strategy with respect to the brand is, among others connected with combining the brand itself with the name of the company.

Brand in the process of university consolidation

Consolidation processes of universities are also related to the choice of brand management strategies (Sulkowski 2018). Usually at the beginning of the process we deal with two (or more) university brands that are consolidated. University mergers can lead to several possible strategic solutions that have been ordered by frequency category. A and B mean the brands of universities participating in the merger process, A', B', AB'- their modification, and X - a new brand. Of course, one can add multiple connections to these standard solutions for the merger of the two universities, i.e. universities (or other organizations) marked with the letters C, D and subsequent ones. Basically, the strategic choice is made between the decision whether to keep the existing brand or change it. However, both leaving and changing the brand can be implemented in several variants:

$$A + B = A$$

The first, most common solution is the adoption of one dominant university brand, which is a stronger partner in the merger process. This strategy can be called retention of the brand. This is a case usually found in such merger types as incorporation and absorption. The situation where one merger partner's brand is kept is quite typical, which is associated on the one hand with the marketing strategy, but on the other hand with the organizational identity. If one of the universities has a good reputation, has a well-known brand with a positive image and high brand awareness, it can be a natural and rational solution to keep it. A stronger merger partner keeps the brand and thus maintains organizational continuity. The advantage of this solution is therefore to strengthen the existing brand. However, the disadvantage is the lack of opportunities to refresh the brand in the form of rebranding and the possibility of weakening the organizational identity of internal B stakeholders, which is losing the brand. This second limitation can be offset by the increase in prestige associated with the new affiliation that the employees of the B university receive as a result of the merger.

The example analyzed is the incorporation of the Medical Academy into the Jagiellonian University in 1993. The name and symbolism of the Jagiellonian University are invaluable due to the university's history and its significance for culture and national identity. It is a symbolic capital that should also be used to make the university a global brand. Until now, the Jagiellonian University is better recognized by the UJ, the same as an acronym for the recently consolidated University of Johannesburg. Interestingly, apart from preserving the brand of the Jagiellonian University, which is probably the strongest university brand in Poland, the internal and dual brand of Collegium Medicum was created, which supported not only the organizational continuity, but also the organizational identity of the former Medical Academy:

$$A + B = B$$

A much less common version of the brand retention strategy is to leave the name of the weaker consolidation partner for the consolidated university. Such a solution may result from the special positive features of the brand, which is possessed by a weaker merger partner, associated with a strong image and brand awareness. The advantage is rational decision making on the branding of the university, while the disadvantage is the possibility of confusion among stakeholders of a stronger partner of the merger:

$$A + B = A'$$

$$A + B = B'$$

$$A + B = AB'$$

The second strategy related to brand retention is the modification of the university's name and logo. It is based on leaving the existing university brand, but adding a significant change strengthening the brand. Of course, as with the retention of the brand, we are dealing with variants. Most often, the name of the stronger merger partner is modified.

The advantage of this strategy is to maintain continuity, while enhancing the brand with a significant identifying element. The disadvantage is the limited possibilities of actually strengthening the brand in practice. An example of this is the absorption by one of the private higher education institutions of another university in Poland, which thanks to it could get the legal status of an academy and significantly strengthen the brand:

$$A + B = X$$

The third strategy that accompanies the merger is the change of the brand, and therefore the total rebranding. A merger is a radical change that can also be passed on to employees, students and the environment by changing the name and logo of the university. The advantage of such a solution is to cut off from the past and put on a new solution or return to the former historical name of the university. This allows to design the name and logo from scratch, which can make the university brand more attractive. It can also be a beneficial solution because of the morale of employees of weaker merger partners who feel equal when all lose their old brands. The limitation of this solution is the high level of risk resulting from the original, total lack of brand recognition. The second source of threats may be a break of organizational continuity, loss of the continuity of culture and organizational identity.

Another example is Aalto University in Finland. The university was created from the merger of three universities in Helsinki at the turn of the 20th and 21st centuries. Symbolically, this merger can be described as $A + B + C = X$. The new name of the university is a symbol of the breakthrough and implementation of a radical change in the form of a merger and program of scientific and educational excellence. The name and logo have been designed from scratch in such a way that - as very simple - they are recognizable in many cultural contexts. This was to serve as an example of a global university brand, because this is also the ambition of the university. The joint change of brand across all three universities allowed for a partnership approach to the merger. The limitation in the form of a total lack of brand recognition has been offset by a marketing campaign based on a message of striving for excellence and creating a flagship project for Finnish science and education. Communication has been based on sensemaking, which convinces not only the environment, but also internal stakeholders. The rebranding project is not free from criticism, which raises issues such as: commercialization of the university, break of continuity, acculturation and loss of organizational identity and failure to meet expectations (Kerber 2015, Lichy, Khvatova, Block 2016).

The rebranding example analyzed is the creation of a federation university in France at the beginning of the 21st century. Université Grenoble Alpes was founded in Grenoble with the merger of three universities operating in this region. The creation of a new brand is accompanied by similar dilemmas as in the case of Aalto University. The brand is new, which means initially poor recognition. Employees of the merging universities may have a sense of acculturation and loss of continuity. The name of the university was designed from scratch, which allowed to use the concepts of effective marketing communication and public relations. It is a simple brand, easy to remember and readable not only in France, but also in many cultural contexts. The name and logo of the university are rooted in the local context, which at the same time has a significant level of recognition in the world. The

Alps evoke an unambiguous association with one of the beautiful and culturally interesting regions of Europe. The logo is minimalistic and shows the mountains drawn with one line. From the marketing point of view, the new brand and logo of the consolidated university provide the basis for market success, although of course the success of the merger depends on many factors, most of which are not related to communication.

Conclusion

The importance of mergers in the university sector is increasing in many countries. Public universities participate in consolidation processes due to the possibilities of: implementation of public policy, moving up in national and international rankings, rationalization of science and education networks, and strengthening economies of scale. The reasons for the popularity of consolidation among private universities are market and organizational sources. Thanks to mergers, private universities can achieve economies of scale, and in the case of many smaller schools, which face lower demand for higher education, avoid bankruptcy. The key challenge remains the answer to the question about the conditions for the success of the university merger. Successful examples of creating new university brands, as a consequence of mergers, can be found in different parts of the world. In Sweden, from the merger of University College Kalmar (HiK) and Växjö University (VxU), a consolidated university was established, which is called Linnaeus University. This is an example of shaping the identity and brand, which allowed to increase the attractiveness of the institution, which also translates into a significant increase in interest from foreign students (Geschwind, Melin, Wedlin 2016).

Summing up the considerations about the brand in the process of mergers in the higher education sector, it can be stated that there is a high probability of increasing the number of university mergers in order to build a stronger and more recognizable brand of the university. The university brand is more and more often perceived as a distinctive indicator of the quality of education in the didactic process and as a determinant of the scientific level of the institution. Analyzing the rankings of universities, one can see that the examples of university mergers presented in the article testify to strengthening the position of their brand in the higher education sector. Exemplification carried out in the article allows to put two working hypotheses that require testing in representative studies. First of all, university mergers foster long-term strengthening of the image of the brand. Secondly, the strategic goal of the university merger is to improve the awareness of the brand. The verification of these two hypotheses may in the future be used to answer the question about the effectiveness of university mergers.

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MANAGEMENT ISSUES OF SCHOOL CATERING SYSTEM IN KENYA

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Abstract: The school catering system plays an important role in national economies, as it provides catering service for young children. Nutritious and healthy food is vital for this age group, as healthy food consumption will build the basis of their adult life. These issues are highly important questions in such countries as Kenya, where food security problems are prevalent. Our research discusses the present situation of the school catering systems in Kenya, where the circumstances of food provision show very different pictures in different areas of the country, in different settlement types and in different types of schools. The main objective of this article is to describe the present catering system in Kenya, which is almost unknown to European readers. The future steps of this research are connected to the present work of the research group on food safety management at Szent István University, Hungary. Future research results may help in the formulation and implementation of a new food catering policy in Kenya, using the existing international good practices.

Keywords: feeding program, menus, nutrition, school catering

Introduction

School meals act as a magnet to get children in to the classrooms. Continuing to provide a daily meal to children as they grow helps keep them in school and is a powerful support to achieving educational goals. Ensuring that the meal provides the nutrition that children need to learn and grow is an investment in to a child's future. Healthy nutrition interventions need to occur early in childhood and adolescence in order to prevent or reverse the adverse health effects of over nutrition or under nutrition and poor eating habits. Childhood and adolescence is a critical period for diets of high nutritional quality as the physiological need for nutrients is high relative to energy needs.

Schools can provide an important opportunity for prevention, because they provide the most effective method of reaching large numbers of people, including youth, school staff, families and community members. School feeding program also act as safety nets to help vulnerable households and communities weather economic crises or other shocks without compromising their nutrition and food security.

Kenya being and low middle income country has not fully realized its school feeding policy, currently, it practices geographically based targeted, meaning that certain regions in Kenya are targeted to receive school meals based on a set of criteria, such as the highest poverty rates or the lowest achievement in education. All schools in these regions receive free meals. In the rest of the country, however, the school feeding programs are generally unavailable to children, even if they have the capacity to pay. Despite the effort, this initiative is not adequate, hence a great impediment to Kenya's growth and growing population. The objective of this paper is to sensitize the Kenyan government on the need and importance of investing and implementing a school feeding system in the country.

School feeding programs have an important role to play in the fight against hunger and malnutrition. When appropriately designed, they have the potential to improve the diets and nutrition knowledge and practices of millions of schoolchildren and their adjacent communities. Apart from being some of the most important tools to reach out to the most vulnerable they also provided income support to families through the provision of food and contribution to learning by increasing children's access to education and maintaining their nutritional status and overall health. School meals programs are the most prevalent safety net worldwide. In addition to their contribution to education, they support families and help promote human development (Alderman et al, 2012). Nutritionally balanced school meals, along with complementary nutrition education and health measures, support child development and hunger reduction through enhanced nutrition and improved learning ability, with short- and long-term effects. When linked to local production, school meals programmes also have the potential to benefit local producers and economies and promote long-term food security (Túróczy et al., 2015). Efficiency of catering services on health status is determined by not only the quality of raw materials but also by the appropriate environment, technology and practice of food handling and

consuming (Tóth and Bittsányszky, 2014). The paper's main objective is to present the problems of undernourishment of children, which has particular importance for the society in Kenya, and to build the basis of the authors' next research in school catering issues. The authors set out to explore the current situation and the nutritional content of food served in various Kenyan school, in order to make the foundations of the food catering policy in Kenya.

Literature review and study background: importance of school catering

According to Carter (2002), schools can provide an important opportunity for prevention against undernutrition, as they provide the most effective way of reaching large numbers of people, including youth, school staff, families and community members. Healthy food and nutrition should be a high priority on every school agenda because of the positive effect on child well-being. Evidence suggests healthy food and improved nutrition improves learning ability, leading to better academic performance. According to the WHO (1998), one of the most vital impacts school feeding programs and policies is the social protection system it offers. People living in poverty are less able to bounce back or recover from the effects of a financial crisis, spikes in food and fuel prices, conflict, disasters, droughts or floods. Their situation is rendered worse when subjected to these unfortunate events repetitively; they resort to negative coping strategies, such as taking their children out of school, often to have them work. Social protection systems are designed to help households manage risks in the face of these challenges. Unemployment benefits, health insurance, access to social services and social safety nets are all part of the system of policies designed to protect the poor from destitution and help them invest in their future.

School feeding is often integrating in to the broader welfare system in various ways such as, ensuring the poorest and most venerable in society get the most benefit that in turn contributes to the promotion of equity. Benchmarking of costs and keeping track of costs, due to the availability of various financial information pertaining school feeding expenditures, many countries can streamline and increase transparency levels of their programs (Alderman et al., 2012). Previous studies show compelling evidence of how school feeding acts as a school going incentive, enhancing enrolment and reducing absenteeism of students. The benefits are particularly strong especially for girls in countries where gender disparities are still a problem. Once in school, school feeding programs contribute to their education by avoiding hunger, improving their nutritional status and improving children's cognitive abilities.

In high and middle upper income countries catering has a slightly different role where by schools and educational institutions provide a key environmental setting in which to promote healthy food practices such as hygiene and healthy food choices as the norm (Tóth and Bittsányszky, 2014). Focusing on establishing a whole school approach to health, and through targeting the wider community, a concrete food and nutrition policy in schools can not only foster short-term but also establish healthy attitudes – preventing the onset of obesity and chronic disease in later life. However, these facts are greatly depend on the quality of the food basket and whether or not it is providing the most important micronutrients that a child needs to develop and learn (Nutrition International, s. d.).

School feeding programs are also known for micronutrient fortification and biofortification of food, to help tackle important deficiencies that are common among children of primary-school age, such as the lack of Vitamin A or iron, both of which also affect the ability to learn. According to Morgan and Hansen (2008), School feeding is adopting a more sustainable approach where by school feeding programs are working hand in hand with the agricultural sector ensure sustainability and take advantage of a range of potential benefits. Various governments are exploring ways to purchase locally, particularly from smallholder farmers to provide them with a stable market for their products and potentially to increase their incomes. Local procurement can also be an opportunity to provide more diverse foods, including fresh and unprocessed products.

As part of a wider education system, school feeding can only contribute if the other major elements that have an impact on learning (e.g. the presence and quality of teachers, suitable textbooks, an appropriate curriculum and a general environment that is conducive to learning) are in place. If these elements are missing, the benefits of school feeding on learning will be limited or non-existent. Additionally, care should be taken to avoid using teachers or education staff to prepare food, since this merely taxes the system that one is seeking to enhance.

Research methodology

In our research, after collecting the general information about Kenya and Kenyan school catering system, based on literature sources and governmental documents and international non-governmental associations, we conducted an on-the-spot survey in 5 types of schools: public national school (Nakuru High School), public county school (Makueni Boys High School, Got Agulu High School), semi-private county school (Lugulu Girls High School, Sacred Heart Mukumu Girls High School), semi-private school (Pope Paul VI Junior Seminary Machakos) private school (Elite Senior High School, Manor House High School).

The main goal of this survey was to give an insight for the international readers about the specialities of Kenyan school menus, and to build the basis for the next research step, to analyse the efficiency of school food catering in Kenyan schools. In the survey, the authors collected the menus of different schools in Kenya during the Spring semester of 2018 and conducted a menu analysis in the abovementioned institutions.

Results and discussion

Situation of school catering in Kenya

Kenya is an East African Country that lies along the equator. It shares borders with countries such as Somalia, Ethiopia and Sudan to the north, Uganda to the west, Tanzania to the south. It has a population of about 44.2 million (estimated in 2015); with approximately 8 million people living in the urban areas, population growth rate is estimated at 2.6% per annum. Kenya occupies an area of 582,646 square kilometres (225,000 square miles), Agriculture being a dominant sector of the economy. In 2013, Kenya acquired the new status of middle level income country as its per capita earning grew to 1,165 USD.

Despite the numerous advantages of school feeding programs, Kenya as a country has no existing school feeding policies in place. Kenya a sub Saharan country, is ranked as low middle income country, has a geographically targeted school feeding program whereby the government uses indicators; such as poverty level, marginalization, low levels of school attendance and high risk prone area to select which geographical regions in the country receive free meals from school. Despite the effort, this initiative is not adequate, as the country boasts of an average of 170,000 students enrolled annually to pre-primary, primary and high school levels, which institutions do not have governing policies on matters like pertaining to food handling, food storage, health and safety, and nutrition content of the food served to students.

The country holds a strategic development plan called Vision 2030 (Kenya Vision 2030, 2007), this vision aims to transform Kenya into a newly industrializing, middle-income country providing a high quality of life to all its citizens by 2030 in a clean and secure environment. The Vision comprises of three key pillars: economic, social and political. The Economic Pillar aims to achieve an average economic growth rate of 10 per cent per annum and sustaining the same until 2030. The Social Pillar seeks to engender just, cohesive and equitable social development in a clean and secure environment, while the Political Pillar aims to realize an issue-based, people-centered, result-oriented and accountable democratic system.

According to Grosh et al. (2008), 74% of the school feeding programs of countries this income group are geographically targeted, meaning that certain regions in Kenya are targeted to receive school meals based on a set of criteria, such as the highest poverty rates or the lowest achievement in education.

All the schools in these regions receive free meals. In the rest of the country, however, the school feeding programs are generally unavailable to children, even if they have the capacity to pay. Despite the developing economy and successful agricultural sector that mainly focuses on exports of first-world luxuries like flowers, tea, and coffee, Kenya is a food-deficit country with less than 20% of its land suitable for successful cultivation. Seasonal food insecurity affects households in rural areas before the start of the harvest and Kenya is plagued by acute food insecurity primarily from droughts and/or floods, which threaten the lives and livelihoods of the most vulnerable groups of the population, particularly in the semi-arid and arid regions.

The arid and semi-arid parts, which include eastern and northern regions of Kenya are the home of roughly 30% of the Kenyan population. These regions have suffered through the crippling social effects of recently intensifying droughts and food shortages. Kenya's school-aged population is among the groups most negatively impacted. To alleviate the health and developmental consequences of childhood malnutrition, increase primary school enrolment, and combat social pressures that limit educational opportunities for girls, the Kenyan government began a school-feeding program in 1980. The initiative, significantly backed by World Food Program (WFP) funds and management, is one of the largest and longest-standing school feeding partnerships of its kind. In 2008, the program served 1.2 million children in 3,600 schools – nearly 21.3% of all primary school students in Kenya (USDA, 2010).

Thanks to the program, between the year 2002 and 2007 saw a 15% increase in urban school enrolment. However, school-feeding programs have increased student enrolment rates, attendance, and exam scores, rural districts have exhibited only modest gains in completion rates and advancement to secondary school. With average completion rates hovering at around 34% in arid and 57% in semi-arid districts, it is clear that even with the presence of school meals, regional disparities in education persist. Especially among poor children and girls, these numbers are far below the standards Kenya must meet in order to achieve Millennium Development Goals 1-3 (poverty reduction, universal primary education, gender equality) by 2015 (Moe and Bell, 2004).

Recently, in accordance with "Education for All" developmental targets, the Kenyan government decided to expand its role in the implementation of school feeding programs nationwide (Moe and Bell, 2004). Through the introduction of the Homegrown School Feeding Program, Kenyan policymakers are looking for ways to better integrate and promote goals in education, agriculture, and rural development through inter-sectoral cooperation and progressive policy changes. Over time, the Kenyan ministries of Education and Agriculture seek to limit the role of external players in order to transform the program into a more sustainable and independent national enterprise.

Nutritional aspects

Maize is the basic staple of the Kenyan diet. Ugali, the most common main dish, it is a mixture of water and maize meal flour that is usually eaten with a sauce of vegetables or meat stew, or simply accompanied with fermented milk. Cassava and sweet potatoes are other staple foods, along with rice in urban areas. Milk and dairy products are also an important part of the diet (The Kenya National Micronutrient Survey, 2011).

While data on nutritional deficiencies and hunger among school-age children in Kenya is lacking, a nutritional intervention study of a large group of rural Kenyan children ages 5 to 14 found a high prevalence of micronutrient deficiencies for iron, zinc, vitamin A, vitamin B-12 and riboflavin (Siekman et al., 2003). In February 2005, the Kenyan Coalition for Action in Nutrition (KCAN) held its first National Nutrition Congress in Nairobi, focusing on various issues and strategies for combating nutritional problems in Kenya.

According to, UNICEF (2010) Kenya is noted for having the following deficiencies: 21% of children under five suffer from moderate to severe underweight, 6% of children under five suffer from moderate to severe wasting, 35% of children under five suffer from moderate to severe stunting, 84% of children under five are vitamin A deficient, 37% of children under five are iodine deficient, 69% of children under five are anaemic. The reasons of such deficiencies are to be explored by our future research, which first step is to analyse the menus provided at schools.

Menu analysis

In general, three main meals are provided in schools, breakfast, lunch and dinner, and two snacks in breaks, when only hot drinks or water is available.

Breakfast in all schools lacks protein such as eggs or sausages, bacon or ham, the only source of protein is in the milk provided for in tea. In some schools the nutrition content of the breakfast is very little and is often composed of only a beverage, tea or porridge only and in other carbohydrate accompaniment like bread or doughnut. Generally, in most occasions students are under fed during breakfasts especially in school that only offer tea in the morning and midday break.

The second main meal is the lunch, where simple meals are served. Most school try to give a balanced diet, in the form of maize and bean mixture called (Githeri). Many schools, despite their category, serve Ugali (stiff porridge) and vegetables which is not a balanced diet. Some school such as semi private school offer meal of very low nutritional value such as dried husked maize (Mothokoi) which contains very little nutritional content. In some cases, students were only given rice as a meal with accompaniment, which was observed in some private schools. Also in rear cases, some schools offered their students very nutritious meals such as sardines and Ugali despite their poor ranking or lower category.

In majority of the schools, fruits were non-existent, only two out of a sample of twelve provide fruits to the students occasionally. The macronutrient that is generally compromised is proteins, most meals lack proteins in their composition.

Table 1 summarizes the menus in the examined schools.

Table 1. A sample of school menus from different categories of schools in Kenya

Breakfast	Lunch	Supper/Dinner
Public National school		
Tea and bread	Rice and beans Githeri	Ugali and cabbage or kales (with or without meat)
Public County school		
Tea and bread Maize meal porridge	Githeri Ugali and kales Tea	Rice, Ugali and cabbage or kales (with or without meat or with sardines or tilapia) Muthokoi, Githeri
Semi Private County school		
Tea and bread	Githeri with Black Tea Ugali and kales Ugali, kales and beef	Ugali and cabbage or kales (with or without meat), Githeri Rice, lentils or beans and fruit
Semi private school		
Tea and bread Porridge	Ugali, Cabbage and Potatoes (with or without meat) Rice with beans, Banana	Githeri
Private school		
Tea, bread Doughnut Porridge, Orange	Rice and Potato stew Ugali and Kales, Githeri, Rice Rice and beans mixed with potatoes	Ugali and Kales with Meat Rice and beans mixed with potatoes Mashed potatoes and Cabbage Githeri

Legend: Ugali= stiff porridge, Githeri=maize and beans, Muthokoi=boiled huskless dry maize

Source: own survey

As it is shown, the breakfasts are almost the same in all school types, and the basic traditional meals are provided in all schools. The menu is more diverse in private schools. In the future steps of the research we will analyse the compliance of food to nutrition standards, the consumer satisfaction based on on-the spot surveys and measuring food waste.

Conclusion

The importance of school catering are the most prevalent safety net worldwide, as fulfilling nutritional requirements of schoolchildren plays and important role in their mental and general development. On the other hand, school meals provide the most important nutrient supply for children in underdeveloped areas or poor families. Our survey and short menu analysis showed that healthy nutrition is not always present in Kenyan schools, despite of their ownership or school type.

Kenya urgently needs the implementation of an adequate school feeding policy to increase student enrolment in schools across the country, to streamline and standardize the provision of food by Kenyan school, and install a healthy consumption culture among the young generation and to improve the overall economy by creating markets for the local agricultural products.

In order to achieve Kenya's development agenda, Vision 2030, the school-catering program should be accelerated to ensure social equality and inclusion, and our planned survey's results – using our former Hungarian research methodology and results – may give a basic framework for this process.

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PAST, PRESENCE AND THE FUTURE OF CSR ACCORDING TO THE MANAGEMENT BOARD

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Abstract: The idea of corporate social responsibility since its inception, i.e. from the twentieth century,²⁵ is constantly changing and evolving towards the strategic component of the enterprise management system. This is due to the increasingly difficult market, or in other words, the environment where companies need to look for new competitive areas in which they could gain an advantage. At present, it is not only economic factors that offer such an advantage, not even a social or environmental one, but rather cooperation between them to create the so-called synergy, albeit not necessarily for short-term financial effects. (Skiba, Albrychiewicz-Słocińska, Gavrila-Paven, Pobór, Czarnecka 2017, p. 675). Creating or implementing management strategies is a task for managers, depending on the inclusion of CSR or not and what nature the managers assign to it. It can therefore be assumed that the future of CSR lies in the hands of business managers. Unfortunately (as shown in the research), a significant group of company managers is guided solely by profits in making decisions (in particular managers of financial departments). Although the very essence of a company's profit is not contradictory to the concept of responsible business, it can not be regarded as the only business goal. Of course, profit belongs to the driving forces of entrepreneurship as one of its goals, but CSR points out that not every way to make a profit is right.

The aim of this study is to present the concept of CSR and its description from the point of view of managers responsible for this area in companies.

Keywords: Corporate Social Responsibility, CSR, sustainable growth, business

Introduction

Enterprises that want to be modern today have to face, among others, the problem of responsibility. It involves the practices of companies in the area of: sponsoring or charity activities for the benefit of ones in difficult situations; environmental protection (so-called ecology); or supporting the needs of the local community. Whether the interest of CSR in enterprises is a manifestation of a steady upward trend or temporary fashion, will prove itself within the coming years.

In the present terminology defining the idea of corporate responsibility, the most important abbreviation is CSR (from: Corporate Social Responsibility), but also often used the terms: "social responsibility of enterprises", "business social responsibility", "responsible business", "business responsibility", "civic enterprise", "social involvement of business", "sustainable development company" (2012, pp. 427-428) - in this study these terms will be used interchangeably.

The idea of corporate social responsibility came to Poland in the 1990s, with the international corporations entering the domestic market. However, the very limited purchasing power of consumers (the only purchase criterion was the price) gave CSR marginal significance.

A sustainable development company aims to create higher living standards while maintaining the profitability of running a business. Raising the standard of living would apply to people from within the company as well as from outside (eg clients, cooperators, local communities). (Hopkins 2007, p. 15)

The good economic situation in Poland (and in the world), which continues to develop for several years, creates the possibility of momentum for the idea of responsible business. This is influenced by: increasing the purchasing power of citizens and increasing the demand for high-quality goods, as well as opportunities for a consumer to choose buying from a responsible company or not, which makes the matter to look simple.

However, the development of CSR may not appear miraculously, without managers' faith in significance of social involvement, hence the great role of education in the discussed area.

The purpose of this paper is to examine the opportunities for CSR development. Therefore, considerations will be made to explain how, from the perspective of past and experiences, managers responsible for CSR assess the implementation of the idea of responsibility in their companies. The implementation of the indicated objective was based on the comparative analysis and synthesis method based on secondary data (reports from PBS and Deloitte research) and a review of literature.

²⁵ One of the first book about CSR was written in 1953 and it was „*The Social Responsibilities of Businessman*” of H. Bowen.

Background

Apart from multiplicity of concepts descriptions of business responsibility, one can encounter various definitions of this idea. Most probably, this is due to the multifaceted concept of social responsibility: considerations on the basis of economics, law, sociology or philosophy (ethics).

Precursor of CSR A. Carnegie, a billionaire from New York in his essay named "Wealth" published in 1889 presented his concept of using surplus fortune for social purposes. He used to say that "a man who dies rich, dies disgraced", however, he did not mean charity, but he thought that one could help others only by enabling knowledge (Carnegie meant the proverbial "rod" instead of "fish").

H. Bowen, who was considered the father of the idea of responsible business, defined the social responsibility of entrepreneurs (and not of the organization - as in the present sense). In this definition, he gave entrepreneurs "the obligation to conduct policy, make decisions and carry out activities that coincide with social expectations" (Bowen 1953, quoted in Rudnicka 2012, p. 39).

Since Bowen, there has been a gradual development of the concept, but people dealing with this issue are divided into supporters and opponents of corporate social responsibility. The classic attitude of CSR's opponents was M. Friedman, who claims that "social responsibility rests solely on individuals, while corporate responsibility is limited to ensuring profit for shareholders" (Gasparski 2012, p. 218, Zadros 2016, p. 350).

P. Drucker, on the other hand, disagrees with M. Friedman, saying that "the economy of operations is not the only sphere of corporate responsibility ..." and that "every organization must accept responsibility for the impact it has on its employees, the environment, customers and every entity with which he has contact. This is social responsibility." (Drucker 2011, p. 126).

Contemporary CSR definitions raise (as part of pro-social activities) the importance of ethics and actions for environmental protection. For example, the World Business Council for Sustainable Development defines business responsibility as the ethical behavior of the company towards society, the essence of which is economic development while improving the lives of employees, their families, the local community and even the whole society. (Zbiegień-Maciąg, pp. 48-49). In the opinion of L. Zbiegień-Maciąg, CSR of the company is a moral responsibility connected with the obligation to account before the public for its activities against owners and employees (internal environment) as well as shareholders and clients, local authorities, pressure groups, ecological movements, from consumers, suppliers, cooperators, and state administration (external environment). (Zbiegień-Maciąg, pp. 48-49) K. Davis and R. Blomstrom also write in a similar spirit by combining the company's own interest (multiplying profit) with increasing social well-being.

Review-of-Literature

In the literature of the discussed issue, one can come across attempts to organize the approaches to CSR.

One of such attempts was undertaken by E. Garriga and D. Mele, taking into account the concept of corporate social responsibility in their division: economic aspects (instrumental theories - enterprises are tools for "making money" and this fact determines social responsibility), political (political theories - emphasize the social impact of enterprises, and if they can contribute to solving social problems, they have a duty to do so), social and ethical (integrated and ethical theories - organizations should respond to social needs in accordance with the values recognized by this society as valuable). (Garriga 2004, quoted by Stefańska 2013, pp. 199-200)

Another categorization of approaches to CSR concerns its impact on business strategy and increase in competitiveness. These are the following theories: stakeholders (it is justifiable to include enterprises in social enterprises in that thanks to such measures they can get support from the environment for their strategic plans), managerial (profit is not the sole goal of the company, managers decide about the direction of the company's development and implementation CSR), social contract (emphasizes the inclusion of normative and practical socio-cultural context in the management of the organization, on the basis of an enterprise agreement with the public), as well as a resource and position school (assumes that each enterprise has unique resources and capabilities that result from the path of growth chosen by the company, competitive advantage is ensured by diversification, not the mobility and unavailability of these resources for other economic entities). (Garriga 2004, quoted in Stefańska 2013, pp. 199-202)

At present, the current of strategic management (part of which is a resource and position school) is clearly in the forefront of all justifications for the competitive advantage of enterprises. M. K. Kramer draws attention to the special type of resource that gives the competitive advantage of CSR. The implementation of the idea of a responsible company leads to the creation of a unique value that can be the foundation of a lasting advantage over the competition. (Porter, Kramer 2011)

Discussion

Extensive research among the CSR managerial staff was carried out in 2015 at the request of the Responsible Business Forum. The research was entrusted to two research centers: Pracownia Badań Społecznych (Social Studies Workshop) (in Poland) and Deloitte (in 10 countries of Central Europe - in the Czech Republic, Slovenia, Bulgaria, Kosovo, Romania, Serbia, Hungary, Slovakia, Lithuania and Latvia). The results of these studies are two reports: "CSR Managers" and "CSR Managers in Central Europe" (the original "CSR Managers Survey 2015 in Central Europe").

As part of the Polish survey section (conducted May-July 2015), two components were implemented - quantitative (133 interviews) and qualitative (16 respondents). "The research sample was a deliberate attempt, constructed on the basis of the separation of over 300 companies that met one of the following criteria: they had to be a Strategic Partner of the Responsible Business Forum; had to report its good practice to the FOB report "Responsible Business in Poland. Good Practices "; had to be a signatory of Vision 2050; had to participate in the Ranking of Responsible Companies; had to participate in the Respect Index; had to sign the Diversity Charter. From this group of companies, one person has been distinguished, whose duties and activities made this person a qualified CSR manager." (PBS report, 2015)

However, the survey named "CSR managers in Central Europe" (carried out July-September 2015) reflects the opinions of 179 CSR practitioners from the Central European region and was the world's first such type of research initiative on an international scale. (Deloitte report, 2015)

The task of this study will be, by means of analysis and comparative synthesis based on secondary data and literature review, an attempt to compile the above two PBS and Deloitte reports. The author of this study has failed to reach a comprehensive comparative report (which he finds indispensable) showing the differences in the perception of CSR by managers in Poland compared to other Central European countries, which is why he hopes that this work will fill this gap.

Based on the data collected by PBS and Deloitte, one can build a CSR manager profile. Who then is the statistical CSR manager? She is certainly a woman, but when it comes to work experience (as well as age) in CSR, in Poland it is different, and in other countries of Central Europe, in most cases, it does not exceed 5 years. This woman works for a large enterprise (over 250 employees), most often the financial-banking, commercial or energy industries.

Longer work experience of Polish CSR managers may result from the higher speed of free market changes in our country (we deal with CSR longer) or there is a large fluctuation at these positions (in the countries from the Deloitte study). According to Polish research, the following factors contributed to the promotion of CSR in Poland: the presence of international corporations in our country (78%); personal involvement of individual employees, including companies managers (53%); the need to adapt to the requirements of business partners (42%); activities of non-governmental organizations (35%); and others of lesser importance.

In order to be able to define CSR itself, it is necessary to know in advance which non-financial areas the business should care for, ie what managers assign a role to it.

Respondents' opinions (irrespective of the country in which the research was conducted) are consistent, namely that the business is committed to: environmental protection, fighting unemployment (where there is a high rate) or social assistance, and education. What is important, the respondents also pay attention to what they would expect from business, and as it turns out, it is fight against corruption. Responsible business should, in their opinion, ensure integrity in the free market, i.e. a guarantee of respect for the same rights and obligations for all business participants. They would also expect the creation of a system that would efficiently stigmatize abuse and, if necessary, eliminate pathological subjects from the economic life.

Despite the imperfection in the area of CSR, in the opinion of managers, the business has contributed to solving many socio-economic problems in recent years: 65% of respondents in Poland shared this opinion and 84% in 10 other Central European countries. The main areas in which this business affected were: changing the way companies are shaped, paying attention to ecology, paying attention to society, increasing the level of ethics in the workplace, introducing activity reporting, increasing cooperation with the environment, charity activities, participating in social campaigns.

Therefore, the CSR management team notices the positives of its activity, and can do so by measuring its own initiatives. In the discussed studies, in their Polish part, measurement and reporting was a prerequisite for participation in the study, so we do not get to know the actual number of companies measuring social responsibility activities. As for Deloitte's research, 54% declared CSR measurement; 24% said they did not measure the effects of their actions; and 22% refused to answer. It should be recognized that this is a high result, which is the result of gained and expected benefits.

The opinion of CSR managers, brings the understanding that these managers most often apply to the implementations of the idea of responsible business: employee volunteering and dialogue with stakeholders (both in Poland and the other countries surveyed).

As mentioned earlier, the CSR managerial staff recognizes the socio-economic benefits of their initiatives, measures its effectiveness and determines the areas of engagement. It would be naive to think that managers would do it all if their company did not benefit from it. (see Bylok 2017, p. 541)

The research shows that Polish CSR managers see more benefits from the use of responsible business than respondents from Central Europe participating in the Deloitte study. The difference between the priority benefits is also noticeable: in Poland - raising the level of employee awareness in the field of ethics; and in the other surveyed countries - increasing the level of employee involvement.

However, as claimed by CSR managers, their activities are not only the right decision sets and achieved successes, with general support inside as well as outside the company. Therefore, we are talking about difficulties and obstacles that disrupt the work of CSR department managers in organizations. The most frequently mentioned in PBS research (Polish managers) are: lack of understanding of the idea by corporate managers (46%), belief that CSR is "unprofitable" - that there are no benefits (45%), no adequate management (41%), understanding of CSR in the category of sponsoring activities (40%), lack of pressure from consumers (32%), lack of incentives from public administration (26%), economic crisis (19%), lack of information in the media and public debate (18%), reluctance from enterprises to invest (14%), others (1%), lack of problems (0%).

Wrestling with difficulties is the daily life of every manager. A person properly prepared for this profession can not only react correctly to obstacles, but also predict such.

From the Deloitte report, we learn that managers from Central European countries are afraid that CSR activities will only be brought to sponsorship, and in addition, public administration will not support such initiatives. It follows that the respondents feel the pressure of financial expectations after CSR, in addition without state support.

Polish managers of CSR departments see the source of problems with the idea of corporate responsibility elsewhere. The burden of difficulty is transferred to the management staff of companies, their lack of understanding of CSR philosophy and the focus on financial profit in the near term, and this reluctance to CSR, may result from the lack of adequate education of managers.

Conclusion

Despite the described obstacles to the implementation of CSR, managers in all countries selected for research are unanimous in their optimism as to the further development of the idea of responsible business. Positive thinking in Poland is represented by 79% of respondents, 18% think that CSR will be in a state of stagnation, and what is important, no one has decided that the idea of corporate social responsibility will come to an end. Among the other countries participating in the research, faith in the development of CSR ranged from 55% in Hungary, to 100% in Lithuania, and pessimism rated between 0% in Lithuania and 45% in Hungary (of which 10% think that CSR is going to decrease).

Optimism in relation to the further development of CSR may be associated with a strong conviction that in the near future many companies will change their business model due to the pressure of customers expecting socially responsible products and services from the market (Cent Eur. = 86%; Pl = 80%). On the one hand, CSR managers in the future see an obstacle in the "lack of pressure from

consumers" (Cent Eur = 24%, PI = 44%), and on the other hand, in this pressure they see the foundation of changes towards the development of corporate social responsibility (Cent Eur.=PI=75%).

However, the CSR management team does not put all hopes on CSR development solely having a belief that customers will start to reward companies that are socially involved, by purchasing a product or service only from such an enterprise. They undertook systemic inclusion of CSR initiatives in the assessment of factors that increase company value, in other words: risk reduction; innovation and creating opportunities; operational efficiency; brand differentiation; attracting talents, employee engagement and retention; and access to capital and market-based pricing. (Deloitte report 2016 and 2017)

The presence of CSR among the companies' valuation factors will directly affect the boards of these enterprises, which have not seen "benefits" so far in implementing the described idea. After such a procedure, CSR will become financial non-financial.

In order to include CSR in the companies' valuation factors, a directive on disclosing non-financial data was introduced, the implementation of which, according to 69% of Polish CSR managers will have positive effects on the way of social reporting in Poland.

The Polish PBS report also shows that the current method of reporting CSR is insufficient. Its main weaknesses are: low level of disclosure of non-financial information by companies; the non-financial information disclosed by the companies are intangible and insignificant; financial and non-financial data should be more integrated. (Eurosif report and ACCA 2013)

Referring to the above, preparations were made for a new way of reporting corporate social responsibility, aimed at eliminating weaknesses, as evidenced by the Deloitte report *"New guidelines and trends in reporting. Non-financial issues and building company value."*

From the Ocean Tomo research named *"Components of S & P 500 market value"* (Ocean Tomo report, LLC, 2015) shows that right now (as for 2015) intangible assets of companies constitute 50% to 84% of the value of the company, and the Novomatic report reports about 87% (report Novomatic 2017, p. 6). This is certainly a good prognosis for assessing the future of CSR.

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STRESS AS A RISK FACTOR IN OCCUPATIONAL BURNOUT IN EMPLOYEES

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Abstract: Employees in an organization represent a form of capital that should be cared for. Caring for human capital through for instance levelling stress-inducing situations at the workplace should be a priority for each organization to function effectively and have good results in the market. In other words, employers who care for their employees also care indirectly for the entire organization. In practice however, this care is sometimes insufficient. Many employees experience occupational stress while prolonged exposure to this stress may lead to occupational burnout. Unfortunately, stress in the workplace is becoming a common occurrence and therefore, one should seek the most effective methods to prevent it. The basic aim of the paper is to present the phenomenon of stress and occupational burnout, its causes and consequences and what the most important methods are to prevent these phenomena from the standpoint of the organization and human capital.

Keywords: occupational stress, occupational burnout

Introduction

Stress is inherent in almost every domain of human life. Many publications have discussed stress, with problems of stress remaining the focus of multiple ongoing studies. New methods to cope with stress have been explored and the consequences of its effects are being examined. The fact that more and more people function under chronic stress is worrying. A number of stress-inducing stimuli is increasing, even escalating the phenomenon. Stress impacts on many areas of human activity whereas its intensity has an effect on other negative phenomena. One of the areas of stress impact is workplace. Stress in the workplace can manifest itself in various forms and affect various professional groups. It is induced by various stimuli related to work. Modern human life is becoming more and more intensive, with increasing pace of life, while job requirements are becoming overly demanding. Consequently, humans feel the pressure of the environment to be perfect and meet specific demands. Employees are often deeply engaged in work, whereas failures make them disappointed. Such factors as atmosphere at work, co-workers or emerging conflicts have an effect on the employee's mood. Nowadays, occupational stress is a common occurrence and, therefore, one should seek the most effective methods to prevent it or to alleviate its effects.

The main goal of the study is to demonstrate the effect of stress on employees across various professional categories and its critical impact on occupational burnout in employees.

Review of Literature

Stress is a commonly used term. However, it remains to raise many doubts. The term has many meanings, mostly associated with a negative phenomenon that all people would like to avoid. Stress cannot be entirely eliminated from human life and therefore should be examined more thoroughly (Ogińska-Bulik, Juczyńska, 2010, p.45).

The creator of the first theory of stress was Hans Selye. He defined this phenomenon as *a non-specific body reaction to any 'demands' it is exposed to*. The researcher also argued that the factors which cause stress vary, but all of them lead to a biological reaction of human body. It is unimportant whether the events, actions and situations that lead to stress are pleasant or not. What matters is how human body adapts to the new situation. Stress releases defence mechanism in humans, regardless of whether the problem is of psychical or physical nature (Selye, 1977, p.24-25).

Stress is a biological phenomenon. It represents a reaction of human body to obstacles, new life situations and various stimuli. With the effect of stimuli, human readiness for acting in various situations is increased. Stress can adopt positive or negative characteristics. Negative characteristics were emphasized by the definition by J. Strelau, who described stress as a state with strong negative emotions such as fear, anxiety, anger, hostility and other emotional states that lead to distress and the accompanying physiological and biochemical changes that substantially extend the specific level of

activation (Strelau, 1996, p.91). This definition emphasized that emotions and activation of its components are critical for stress. This can lead to the conclusion that the state of stress is connected with emotions with negative meaning and other states of stress which are substantially elongated, leading to various changes in body physiology. The effect of stress over a long period leads to surpassing certain norms and limits of body's coping with various problems of physiological nature.

According to J. Strelau, the concept of stress differs substantially from the concept of stress presented by R.S. Lazarus, who emphasized that activation was impossible to be a factor as it is limited to correlation between state of stress and emotions (Strelau, 1996, p.92).

The concept of stress proposed by Lazarus and Folkman should also be noted. According to these researchers, the term stress means *a specific type of relations between a person and the environment, which is eventually determined by the person as straining and going beyond his or her resources while putting his or her well-being at risk* (Terelak, 2001, p.70). The literature review shows that this understanding of stress is one of the most frequently cited definitions.

Theory of stress is a very extensive and complex problem. The sources that describe this problem are vast.

Occupational stress depends on many factors. Dynamically changing working environment leads to various changes, including the necessity to adapt to new challenges. Employee should face the requirements of the employer who expects increased work effectiveness. This impacts on the need for continuous learning, necessity of adjustment to the requirements of employer and the labour market. The employees are expected to improve constantly and adapt to working in multicultural environments. This reduces the sense of security and leads to being afraid about losing the job. These situations represent the load to the employee and lead to discomfort (Bartkowiak, 2009, p.12). Consequently, occupational stress is observed. This factor is unfavourable and can destroy the health of the employee and lead to the decline of his or her effectiveness and efficiency at work.

Stress in the workplace is observed in various situations. However, it is most frequent if people are unable to meet employee's expectations and if they have little control over the job they perform. Increased stress in employees can be also caused by no respect or support from superiors and colleagues (<http://rynekpracy.pl/artukul.php/wpis/761>, on 14 March 2018).

In most cases, performing a specific profession can lead to a feeling of stress. It is critical that stress should not become a problem for the employee because feeling the health effects of stress can be burdensome not only for the employee but also to society. Data have shown that stress is the second of the most frequently mentioned work-related health problems. According to a survey in the European Union, nearly 22% of employees declared that occupational stress impacts on their health. It was demonstrated that occupational stress was a factor which explained absence from work in 50-60% of cases. Many years of research on occupational stress have confirmed that this phenomenon can lead to negative effects *for health and security of individual employees but also for functioning of the entire organization* (Waszkowska, Potock and co-author, 2010, p.27).

As presented by Nik Chmiel, stress factors in occupational stress can be divided into four categories: work content, working conditions, terms of employment and social relations at work. Table 1 presents categories of work-related stressors (Chmiel, 2007, pp.172-173).

Table 1. Categories of work-related stressors

Category	Stressor
Work content	overload/underload with work, complex work, monotonous work, excessive responsibility, dangerous work, contradictory and unequivocal demands
Working conditions	toxic substances, bad conditions, position the work is performed in, work that demands a high physical effort, dangerous substances, insufficient hygiene, no personal protective equipment
Terms of employment	shift work, low salaries, poor opportunities for careers, no permanent employment contracts, uncertainty of employment
Social relations at work	poor leadership, little social support, insignificant participation in decision-making, limited freedoms, discrimination

Source: Chmiel N., *Psychologia pracy i organizacji*. Gdańsk, GWP p.173

Excessive workload and performing work intensively can lead to occupational burnout. Nowadays, with work becoming a very important aspect of human life, occupational burnout is becoming very common. The attempts to analyse this phenomenon were made in 70s of the 20th century, but this domain is becoming the focus of explorations of researchers from various domains of science. A constant interest in the problems of burnout is being observed and attempts were made to develop the tools which would be helpful in measuring this phenomenon. Therefore, it can be concluded that this phenomenon is important from the standpoint of social problems with functioning of organizations (Ed. Bylok, Robak, 2009, p.184). Over many years, the problem of burnout has substantially intensified and affected various working environments. It has become the cause of giving up the job and contributes to a reduced work performance. Occupational burnout can occur in any person and at any position. The highest exposure to the phenomenon is observed in people working at important positions in the organization. This can especially concern employees at managerial positions but also people connected with professions that require extensive contacts with people. Among them are teachers, coaches, pedagogues, nurses, doctors, traders, psychologists and many others.

Occupational burnout is defined as a set of disturbances which impact on human, who is a component of the human-work system (Przewoźna-Krzemińska, 2017, pp. 434-440). It would seem that burnout concerns only those who feel little engaged in the working environment, are bored with their work and little active. However, this thinking can be misleading. Burnout affects active people who are motivated for constant activity. These are often people who set overly demanding targets for themselves, perfectionists and people whose sense of life is working, with particular focus on professional successes. It was found that burnout affects people working compulsively, colloquially termed workaholics (Wilisz, 2019, p.439).

Occupational burnout is a negative state of exhaustion. The exhaustion can be physical, emotional and mental. It is mostly caused by a high level of involvement in situations which lead to emotional overload (Pines, 2002, p.35). Burnout is experienced by a small group of employees in the organization, mostly those, who have just started their professional life and hoped that job would make them satisfied and fulfilled (Ed. Bylok, Robak, 2009, p.185).

Good relations with employers are especially important to employee's combating occupational stress and burnout. The employer should support their employees, listen to their thoughts about specific problems and respect their opinions. It should be avoided that bosses are passive and indifferent to requests of their employees. A very important support group is co-workers. The group should show the employee that he or she is not excluded or left alone with their problems and can always count on help and support of more experienced employees. The employee should always seek support of other people since acting individually is conducive to occupational burnout (Sokołowska, 2007, pp.2-3).

Methodology of the research

Research on stress at work and occupational burnout was carried out using a questionnaire. The problem in this article boils down to the following questions:

- What are the reasons for stress at work?
- What are the consequences of stress at work?
- How do respondents cope with stress?
- What are the causes of burnout?
- Which occupational categories are more susceptible to the occurrence of burnout?

A questionnaire survey was performed among the employees from three selected work categories. There were 117 survey participants from three selected professional categories. Among the participants, 52 people were women and 65 people were men. Therefore, women and men represented 44% and 56% of the respondents, respectively. Among physical employees, 59 people participated in the survey, accounting for 50% of all the respondents. Office workers (28%) and scientists (22%) also responded to the questionnaire. The survey examined 33 people from the category of office workers (28% of the entire group). Scientific employees (teachers) accounted for 22% i.e. 25 people from the groups of respondents.

Results and discussion

The questions contained in the questionnaire concerned the phenomenon of stress in the workplace and occupational burnout. To the question whether their jobs were stressful, the respondents answered as follows:

- 85% of physical workers thought that their jobs were stressful, whereas 15% answered in the negative;
- 70% of office workers thought that their jobs were stressful, whereas 30% answered in the negative;
- 55% of scientific workers thought that their jobs were stressful, whereas 45% answered in the negative.

With respect to all the respondents, work was a stressful activity for 90 people, whereas for others, i.e. 27 respondents, work was not a stress carrier.

Another important problem was views of examined employees in terms of the causes of stress in the organization. Information about this problem is presented in Table 2.

Table 2. Causes of occupational stress according to the employees studied (%)

Possible variants of answers	Physical worker	Office worker	Scientific worker (teacher)
Unpleasant/bad atmosphere in the workplace	11%	14%	8%
Working overtime	29%	5%	8%
External inspections	11%	10%	17%
Relations with co-workers, bosses, superiors	9%	19%	8%
Too many duties and hurry	30%	28%	25%
Conflicts	14%	14%	8%
Too much responsibility	20%	24%	26%
Working in burdensome conditions	16%	-	-
Competition	7%	14%	42%
Physical effort	16%	10%	-
No support/help	5%	10%	8%
High demands and low salaries	32%	43%	50%
Other (which?)	-	9%	-

Source: Author's own elaboration based on the author's own survey.

The data contained in *Table 2* reveal that:

- physical workers thought that causes of stress include in particular excessive demands and low salaries, too many duties and hurry and working overtime;
- office workers indicated excessive demands and low salaries, too many duties and hurry, and too much responsibility as stress factors;
- scientific workers claimed that excessive demands and low salaries, competition and too much responsibility are the causes of stress in their workplaces.

In all occupational categories, employees declared that employers had very high requirements. Although these requirements were met, salaries were not adequate for the duties and competencies. According to employees, excessively many duties combined with low salaries were basic causes of stress.

The employees have their own methods to alleviate the effects of stress. In order to relieve the stress, employees most often watch TV. This was the answer provided by 26% respondents. The second most frequent answer was spending time with family and friends. This method to relieve stress is used by 19% of employees. The third most frequent answer concerning the method to work stress off is: I go to a pub/club. This method is used to relieve stress by 14% respondents.

Other answers of the employees concerning what they did to relieve stress were:

- 12% respondents went to bed;
- 10% respondents practised sports;
- 6% respondents went for a walk;
- 5% respondents listened to the music;
- 3% respondents took a day off.

The question which was important for the problems analysed in the study was aimed at employees from selected categories about how they understood the concept of occupational burnout. Their views in this respect were as follows:

- 27% claimed that occupational burnout was the state of exhaustion of the individual caused by excessive tasks of the working environment";
- 40% declared that occupational burnout is "one of the possible responses of human body to chronic work-related stress in professions that require constant contact with people";
- 15% was of the opinion that occupational burnout is a "state of bodily, spiritual or emotional burnout";
- 18% claimed that occupational burnout is a "sense of inconsistency with the work, which may lead to a serious crisis in life".

The employees studied were asked which factors are conducive to occupational burnout. The most popular answers among physical workers about factors conducive to occupational burnout were noise, crowd, maladjusted equipment. Furthermore, most of the office and scientific workers (teachers) enumerated hurry, monotony and excessive number of assignments to be performed in a short time to be the most conducive to burnout.

The final question in the questionnaire asked about the factors that impact on motivation for work (factors that reduce the motivation). Employees from all three occupational categories found that excessively low salary substantially reduced motivation for work. This answer was provided by 47 respondents (40%). Furthermore, 26% of employees claimed that too much work reduced their motivation. Other factors that reduced motivation for work were unclear division of duties, unpleasant atmosphere at work, concentration on mistakes, uneven treatment of employees, no opportunities for development and working conditions.

Conclusion

Stress situation substantially contribute to reduced satisfaction from work. With increased level of stress, atmosphere at work becomes burdensome while employees are frustrated, which consequently translates into their family life. Employees feel very often exhausted and dissatisfied with the job they perform and it is known that dissatisfaction from work and stress are conducive to occupational burnout.

Effective prevention of stress at work requires engagement and cooperation between employer and employees. The tasks of the employers and managers include (Ed. Robak, 2015, p.152) creation of the climate conducive to friendship and kindness; supporting young employees to adapt for work, discussing the problems together; ensuring consultation with experienced employees, relieving employees (shortening duration of shifts, longer breaks, leaves), being the model of behaviour for others, determination of priorities at work, preventing bad and burdensome working conditions, not burdening employees with additional assignments, adjustment of the system of needs. The factor that will provide the most important contribution to the effective work performance is human resource (Hasit, 2016, p. 283).

The presented prevention measures are also supposed to prevent occupational burnout. These activities are realistic and possible to be applied. The only precondition is awareness that such threats exist and can affect each person.

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TOURISTIC AREAS OF THE NORTHERN PART OF KRAKOW-CZESTOCHOWA UPLAND AS A CONSUMER GOOD IN DIGITAL MEDIA

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Abstract: The cultural space of tourist areas can be treated as a common good, in which the beneficiaries are mainly their inhabitants, companies related to tourism, tourists as well as cultural institutions and local government institutions. Different actors may value the elements of the material and immaterial culture of the region in a different way, thus influencing their consumption. The supply of the content of symbolic culture is increasingly mediated by new media, mainly websites. The behaviour of tourists in tourist areas may therefore depend on the content and how it is promoted in digital media. The authors present the results of netnographic research on marketing activities, consumer practices and manifestations of prosumer behavior related to the space of Northern Kraków-Częstochowa Upland. The research includes the analysis of the content of selected websites related to this area, which were created both by entities associated with this region and the content of globally functioning tourism-related websites. The authors are also interested in creating relations between entities that become visible in hyperlink networks between websites.

Keywords: culture, space, consumer good, consumption, Krakow-Czestochowa Upland, digital media

Introduction

In the world of fast development of new technologies and progressive globalization the societies undergo various changes concerning among others the sphere of consumption. The cultural sphere and its consumption is also changing. The development of technologies, which is characteristic for postmodern era enables virtual commerce and virtual consumption (Chluski, 2007). The traditional patterns of behavior are changing and become displaced by new trends. (Karczewska A., Bsoul-Kopowska M., 2016) One of the characteristic elements of the consumer society is prosumption (pro- from production and – sumption from consumption), which means the blurring of clear distinctions between consumption and production. As W. Patrzalek (2004) points out, the development of prosumption is connected with increasing amount of free time, the need for development as well as possibility to work at home. The consumer becomes at least partly the producer of goods or services which he is going to consume. He creates, designs, provides information, takes part in creating the consumer good or service.

One of the most popular changes in modern consumer societies is virtualization of consumption, which is enabled by the wide use of the Internet by the consumers as well as commercialization of various spheres of human life, including consumption. The role of the media in human life is increasing. (Karczewska A., Bsoul-Kopowska M., 2017)

In the case of tourist regions, a space with the objects located there and promoted as particularly attractive together with cultural events taking place there can be treated as the basic consumer goods. Due to the necessity of satisfying the living needs of people visiting such areas, the infrastructure related to tourism services is being developed. In view of the above, the increasing number of entities providing services to tourists leads to an increase in the complexity of the network of relations, through which one can understand both relations of cooperation as well as rivalry. Nowadays, digital media are common tools for promoting both own space and own service activities. The authors of this article are interested in what elements of tourist areas and in what way are promoted via the Internet and what relations can be observed in the case of entities that are key actors in the development of tourist traffic. For this purpose, pilot studies were conducted covering websites concerning the Northern area of the Kraków-Częstochowa Upland as well as global websites, in which Internet users post content about the region, the objects and events occurring there.

An important factor contributing to the popularity of a given area as a tourist region is its availability. It can therefore be assumed that those regions, of which a significant part of space is treated as a public good, will be particularly attractive. As M. Lustofin noted, public space should be treated not as a material being but as a metaphorically captured space of dialogue. In this respect, this

kind of public space is opposed to the private space (Lustofin 2014, p. 184-185). This applies not only to the issue of its legal possession, but also to the social treatment of it as private, public or semi-public. As a consequence, such social image of space translates into the degree of its use and sharing with others (Bell et al., 2004, p. 348). However, the polar division into public and private space is narrowed down if we treat it as a certain kind of good. Taking into consideration the availability of a given good and its exhaustibility, a two-stage division is presented, within which public, club, private and common goods are included. The authors noted that they may correspond to various forms of social organization, i.e. hierarchy, community, network and market (Kukowska, Skolik 2016, pp. 311-312). In the case of rural areas, it was assumed that cooperation within the framework of tourism activities facilitates both concentration on the production and maintenance of public goods (architecture, landscape) and leads to the creation of network structure (Kukowska, Skolik 2017a, p.68). If we take into account the intangible aspect of the social space, the quintessence of which is cyberspace, it does not exclude human inclinations to territorial behavior (Skolik 2013). Communication acts which take place in the Internet sphere translate into activities that have the character of space appropriation, taming it as well as protection against intruders (Skolik 2015).

In the area selected for research, dominated by rural communities, tourism develops mainly thanks to family businesses. The multiplicity of small entities operating in this market contributes to closer cooperation between them manifested in such activities as: „1) mutual sharing of staff providing tourist services; 2) mutual recommendation in case of lack of accommodation; 3) recommending food services in the direct neighbourhood; 4) recommending different types of attractions organized by friendly neighbors” (Kukowska, Skolik 2017b, p. 389).

With the development of cyberspace, the problem of weakening or maintaining ties through Internet communication is being considered. There are questions about the issue of decline of locality through the impact of the global Internet network (Biernacka-Ligięza 2008, p. 411). For various aspects of social life, one can notice support from websites referred to as new new media, created socially by Internet users (Levinson 2010). However, it would be difficult to find examples of synergy between the functionality of such digital media and the needs of local collectivities, despite the fact that these collectivities have the character of communities generating the public good. Paradoxically, some communities associated with new media tend to cooperate with cultural institutions with a relatively higher hierarchy. Such forms of cooperation may have a greater impact on the development of the cultural space of the region, as long as the fears of free access to the content of symbolic culture in the Internet space are eliminated (Kukowska, Skolik 2017c). The aim of the article is to determine how the touristic areas are presented in the virtual space in the consumer and prosumer context.

Methods

The authors chose for the research the area of 9 communes located in the northern part of the Kraków-Częstochowa Upland. There is no systematic research on shaping the cultural capital of this area and with few exceptions there is rather short time of tourist activity development in this region. The authors chose several types of websites and databases for research: websites of municipal offices, official registers of tourist facilities (register of immovable, movable and archaeological monuments), tourist services websites. The authors identified and categorized cultural facilities and events of (potential) importance for the development of tourism. From among a number of portals created by Internet users, three websites for posting photos were chosen (Wikimedia Commons, Flickr, Fotopolska), Polish-language Wikipedia and an OpenStreetMap map service.

The research included the way of presenting objects and events (e.g. the quality of available materials, availability/concealment - what is more or less clearly displayed on websites, popularity - which objects and events appear most frequently, which are displayed higher in the hierarchy (e.g. on the main page). Moreover hypertext links between the websites were studied: social relations networks (cooperation networks), and hypertext links networks as well as the differences between the way of presenting tourist areas in individual communes, differences in the presentation of particular types of tourist facilities (content).

Analysis of the sub-region of the Kraków-Częstochowa Upland was also based on comparing which tourist facilities, cultural events or other activities are described on the websites of municipal offices, including the official register of monuments created by the National Heritage Institute.

Considering marketing activities and consumer practices, the research included the contents of tourist services such as: e-turysta.pl, eholiday.pl, as well as the content of Wikipedia's online encyclopedia. Attention was drawn to the creation of hyperlinks between local government units and tourism entities, which was adopted as an indicator of building social networks. Implementation of research assumptions also included the characteristics of ways to share content for users. The categories of analyzed content were: monuments, protected nature areas, tourist routes, amusement parks, sports facilities, cultural events as well as accommodation and gastronomic offers.

Results and discussion

The surveyed local government units differ between each other significantly in the way they present their cultural space, as well as accommodation and gastronomic bases on their own websites. The favorite in the case of taking care of the tourist image of the commune in the virtual space is Żarki commune. Unlike the other websites, this commune's website redirects users to an individualized website of turystykazarki.pl presenting the tourist values of the commune. A person looking for information within his tourist activity from the main website navigates through the following categories: educational, religious, culinary, organized packages etc. On the website one can also be guided by age criteria of selection: families with children, teenagers, seniors. There is also a description of various types of monuments and events, tourist routes, as well as sports facilities or playgrounds. The website has got a lot of pictures and an interactive map is also available. The opposite of such a rich form of presenting information are the websites of communes containing only brief descriptions of individual monuments presented in the "for tourists" or "worth seeing" bookmarks, an example of which is Przyrów commune website with the description of three sacred monuments. The Poraj commune presents a variety of tourist attractions, from the sports, recreational and cultural complex to the swimming pool and the description of tourist routes, however, there is no information about monuments. On the website of the Lelów commune, 7 tourist attractions were identified, of which 3 relate to the heritage of the region: Ohel - Jewish cemetery, Chamber of the Lelów Region Tradition and the thematic quest "Lelów of two cultures" (The route revealing the historical community). On the dedicated sub-website, however, parishes with illustrative material are presented. The highlighted event is the festival of Polish and Jewish culture "Ciulim - Chulent Festival", which takes place annually since 2003, and the descriptions and numerous photographs from these events create a kind of online chronicle.

Due to the fact that some of the communes present tourist attractions in a limited scope on their websites, the solution is to redirect the user to websites that respond to tourist needs of Internet users. Mstów limits redirection of the Internet users to zakatekjury.pl, a site presenting 16 tourist-attractive places. Lelów sends Internet users to jura.info.pl and lthk.pl. Janów provides the access only to the website of the Jurassic Communities Association, as well as Kozięgłowy, which additionally shares with: szlaki-konne.com.pl. Przyrów, however, indicates the platform of e-cultural services (peuk.fiiz.pl), which allows the user to plan his trip by moving around the map, providing the time and needs (accommodation, gastronomy, type of tourism, activity, interests). Communes Niegowa and Poraj do not link to tourist services at all. Similarly Żarki with its rich website addressed to tourists does not redirect to such websites on their website. The network of links is significantly extended by the commune of Olsztyn, because in addition to linking to jura.info.pl it also redirected to: silesia-sot.pl (Silesian Tourist Organization), agrojura.pl (Jura Touristic Service), jurajska.org.pl (Jura Touristic Organization). Thus, a tourist has more opportunities to collect information and verify Internet content within his touristic interests.

On the websites devoted to the analyzed communes, the most frequently described tourist attractions are: the Church of the Assumption of the Blessed Virgin Mary with the Monastery of the Regular Lateran Canons, the ruins of the castle and the wooden granary in Olsztyn, the ruins of a castle from the 14th century in Mirów, fourteenth century ruins of the watchtower of the castle in Ostrężnik, the Raczyński's palace in Żłoty Potok and several caves.

In the process of consumption of cultural goods, tourists use the infrastructure of accommodation and catering services. When promoting local entrepreneurs, communes' offices place their offers on their websites. It is characteristic that all municipalities present entities offering accommodation, although sometimes in a very limited number (e.g. Przyrów commune - 2 offers). Catering services are not presented on the websites of the communes of Mstów, Niegowa and Przyrów.

It was noticed that in the analyzed tourist subregion there are several points with a very high saturation of objects that are often photographed by Internet users. These are the communes of Olsztyn and Żarki, as well as the area of Janów and Złoty Potok, and the area of Mirów and Bobolice in the Niegowa commune. It can be assumed that some objects, being clear attractions, also affect their neighborhood, whereby objects located in their vicinity are also becoming more and more important for prosumer photographers. Communes which do not or cannot promote tourism objects symbolizing them can be overlooked by tourists who are interested in sightseeing.

The authors used Internet tools which allow to research what is the amount of referrals to the commune's Internet domain, the amount of backlinks and the traffic concerning a given domain, including direct, organic and social media traffic. This information shows what is the most popular content which is referred to and what kind of Internet subjects are linked with the commune with the backlinks and referrals (e.g. semrush.com; similarweb.com). A backlink is a link on another website that points to your site. Referrals are entries to a given website from other sites and includes cases where the user clicked on a link to a given website placed on another page. Referring domain is understood as the domain which backlinks are coming from, whereas traffic means visits to a given website from different sources. One can classify traffic on the basis of the traffic sources. Direct traffic are direct entries to the website including cases when users have entered the website address in the browser or when the referrer/source is unknown. Organic Search means entries from not paid search results. This category includes transfers to a given website from the search results pages of different search engines eg. Google. Social traffic means entering the website from Social Media platforms such as: Facebook, Twitter, Google+ etc.

According to the data from the day 13 March 2018, the biggest number of total backlinks (referrals) number had Mstów commune (3800), the lowest one had commune Poraj (177). All the data are presented in the Table 1.

Table 1. Number of total backlinks of communes

Commune	Commune's website	Total backlinks number	Number of referring domains
Koziegłowy	www.kozieglowy.pl	469	61
Lelów	www.lelow.pl	1500	93
Janów	www.janow.pl	843	77
Niegowa	www.niegowa.pl	578	109
Przyrów	www.przyrow.pl	1100	33
Żarki	www.umigzarki.pl	755	67
Mstów	www.mstow.pl	3800	30
Olsztyn	www.olsztyn-jurajski.pl	1400	61
Poraj	www.ugporaj.pl/index.php	177	1

Source own study based on: <http://semrush.com>, on 13 March 2018

Qualitative analysis of backlinks provided the knowledge about the content of commune's websites that was linked by other subjects and their websites (backlinks). Backlinks to commune Żarki concerned the pope John Paul II as an honorary citizen of Żarki, tourism in Żarki, catalogue of electronic Żarki office, representatives of the subregion in the Częstochowa town hall, library in Żarki. Backlinks to commune Przyrów concerned the representatives of the subregion in the Częstochowa town hall, documents regarding the water supply tender and "Silesian district – positive energy" website content. Backlinks to commune Poraj included the poll about assessment of junior high school in Żarki Letnisko, educational issues, local anniversary of the Warsaw rising celebration. In turn backlinks to commune Olsztyn concerned Motorcycle Starry Summit to Czestochowa, Olsztyn Guardian Angel figure, Polish communes' coat of arms, local products. Backlinks connected with Niegowa website included electronic Niegowa office, Bike Atelier MTB Maraton, the representatives of the subregion in the Częstochowa town hall, Low-emission Economy Plan. The commune Mstów backlinks concerned Włókniarz Częstochowa sports club, school in Małusy and the representatives of the subregion in the Częstochowa town hall. In case of Lelów commune, backlinks concerned Lelów

Historical and Cultural Society and Lelów parish. Backlinks to commune Kozięłowy included the representatives of the subregion in the Częstochowa town hall, Kozięłowy touristic objects (restaurant, hotel etc.) and “Silesian district – positive energy” website content. Finally, backlinks to commune Janów concerned Fair play commune contest, main page of the commune website, school youth hostel in Siedlec, touristic attractions of Janów and Twardowski’s gate. (<http://semrush.com>).

In case of direct traffic concerning communes’ websites, the biggest one concerns commune Lelów (53%), Janów (47%) and Mstów (43%). Organic traffic has the highest level in case of Kozięłowy commune (85%), Niegowa commune (75%), Poraj (72%). The level of presence of communes’ websites in the social media is low (11% for Poraj, 6% for Mstów, 3% for Kozięłowy, 1% for Janów) or none (0% of social traffic for Lelów, Niegowa, Przyrów, Żarki and Olsztyn). The results of the traffic analysis show that the linking to websites of the communes not so often and not in case of every commune concern content connected with tourism or cultural resources of communes.

Backlinking analysis of communes’ websites suggests that tourism issues and cultural resources of communes are not so often backlinked to websites of the communes. Backlinks concern usually other issues and events. What is more, the connections of communes’ websites with the social media are very low, only some of the communes websites’ social traffic was coming from Facebook website. Hence, there is a space for promotion of own touristic and cultural values and raising the awareness of entities with which the communes cooperate and maintain contacts. There is a potential for building social capital and expanding social networks of the region with the use of mentioned resources.

Even if it is not always an intentional action, cultural objects related to tourism are presented on commune websites as consumer goods. As the authors have not yet conducted surveys with tourists, residents and local authorities regarding this problem, the issues of making conscious promotional activities require further research. The authors intend to expand research in this area.

Conclusion

Therefore, in the space of the network of the analyzed pages, first and foremost, historical objects are promoted. It seems quite surprising, considering the fact that the studied area is intensively explored by pilgrims and people practicing active tourism (climbers, cavers). Historic defense and residential buildings are also significant attractions for prosuming tourists photographers. Moreover, not all tourist websites, like in the case of indicated communes, have a database of entities offering catering services, so there is some undeveloped space for cooperation in this dimension. The content of the websites related to the discussed region depends not so much on its cultural or natural specificity as on the general trends shaped in the analyzed websites. Thus, many local advantages and qualities are underestimated and not exploited in attracting tourists to the region. There is a great potential to develop the promotion of cultural goods related to tourism on the Internet in most of the researched Jura communes.

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USE OF IT TECHNOLOGIES IN THE MANAGEMENT OF PRODUCTION PROCESS QUALITY – A CASE STUDY

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Abstract. The objective of the article, namely that of actions taken to remove product quality non-conformities, have been discussed and a calculation by the subtractive factor method has been presented. When using the functionality of the IPO system™, the authors of the article tested the manner of controlling the quality of products and calculated the technical cost of production in a selected production plant. The benefits and limitations of the described IT tools have been illustrated with an example of implementation. As the main advantage of the solution, the authors indicated the current registration of events, continuous updating of product manufacturing technologies and integration with selected ERP class systems. The main drawback was the inability of the users to draw up their own reports.

Keywords: management, production

Introduction

Continuous improvement of the quality of products, services and production processes results from the consumer market requirements and prevailing trends. An important issue is the way of implementing and observing quality management standards in a company. A Quality Management Standard compliant with ISO 9001:2015 standard (EN ISO 9001:2015 *Quality management systems – Requirements*) is applied in all branches and institutions of various kinds and sizes. The process approach used when developing and improving the quality management system not only streamlines the circulation of information and documents in an institution, but it also brings in a precise division of tasks, competences and responsibilities of the employees (Berret-Koehler, Kenneth, Kiser, Sashkin, 1993) (Figure 1). The organization achieves the result of effective business activity, enabling it to increase customer satisfaction, adjust to the changing conditions on the market and maintain the market position.

Due to the above, the author of the article undertook the task of assessing the suitability of the selected software, which supports manufacturing activity, in the perfection of the quality management system. The purpose research was actions taken to remove product quality nonconformities have been discussed and a calculation of technical cost of manufacturing by the subtractive factor method has been presented. When using the functionality of IPOsystem™, the author of the article tested the manner of controlling the quality of products and cost calculating.

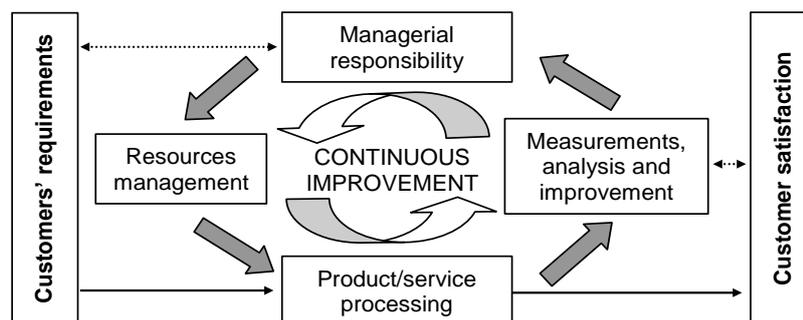


Figure 1. Dynamic structure of a quality management system according to ISO 9001:2008 standard

Source: own elaboration

Product quality improvement

Manufacturing process control is an important aspect of enterprise activity (Assid, Gharbi, Hajji, 2014; Sajadi, Seyed Esfahani, Sørensen, 2011; Caramanis, Sharifnia, 1991; Akella, Kumar, 1986; Dhoub, Gharbi, Ben Aziza, 2012; Gharbi, A. Hajji, K. Dhoub, *Production rate control of an*

unreliable manufacturing cell with adjustable capacity, 2011; Lavoie, Kenne, Gharbi, 2009). Based on numerous studies regarding production costs analysis, one can conclude that failure to meet quality requirements is frequently a source of additional costs, causing unexpected financial losses for the enterprise (Hlioui, Gharbi, Hajji, 2015 ; Skotnicka-Zasadzien2013)

Actions that eliminate the identified nonconformities, but, at the same time, generate additional costs, include (PN- EN ISO 9000:2006 System Zarządzania Jakością – Podstawy i terminologia; PKN): correction of errors, involving the necessity to use additional materials, raw materials or utilities, as well as the use of different tools, etc.; performing additional technological operations which restore the initial quality of a product; conducting another quality control; performing diagnostic tests to establish the source of nonconformities; utilization of damaged products which cannot be repaired or reused.

Popularization of quality management systems caused that contemporary enterprises base their activities on the functioning of IT systems (Milewska, 2017 ; Kimemia, Gershwin, 1983). The reasons and effects of product nonconformities are defined and errors in the course of the production process are identified using production management support systems. Application of IT systems provides tangible benefits, which contribute to reduced costs of product manufacturing (Milewska, 2016) Following changes in the value of components of the technical production cost structure enables evaluating a defective product, taking into account both the time of the defect occurrence and the duration of its forming. This evaluation should include both the cost of direct production materials and direct wages. They are calculated on the basis of the number of man-hours devoted to the performance of technological operations involved in the order until a nonconformity is found. Particular attention in the calculation of a technical production cost should be paid to estimating the activities involved in the restoration of the initially planned quality of a manufactured element (Skotnicka-Zasadzień, Wolniak, Zasadzień, 2017), utilization of defective products as well as diagnostics enabling identification of the cause or/and source of nonconformity. The above described analysis makes it possible to implement corrective or preventive actions, which allow reducing the identified problem (Rivera-Gomez, Gharbi, Kenné, 2013).

In the context of the above considerations, an important issue is specifying the production process check points. They are an intermediate stage of the product manufacturing process, in which its technological parameters should be controlled or the conformity of half-product quality should be verified. For the final product check is an obvious procedure. Production process monitoring provides a basis for decisions controlling the flow of materials in a company. The most commonly applied measure of production process disturbances is the product quality level indicator. It represents a ratio of the number of defects to the total number of manufactured units, or to the number of checked products (EN ISO 9001:2015 ; Kolman, 1992 ; Hamrol, Matura, 2006 ; Hajji, Gharbi, Kenné, 2004). Deviations between the expected and obtained value can be eliminated by changing the operation technological parameters, changing the material structure of the order or changing the workstation instructions. Another variant of actions regulating the flow and aiming to offset the expected and obtained value is quantitative correction of the adopted standards. Correcting the conditions of the production process is the most radical action aimed at changing the algorithm of operational production planning (Milewska, 2017). The principles building a quality assurance system and the analysis of influence of various factors on the decision-making was described in article (Egorov, Kapitanov, Loktev, 2017 ; Kang, Ramzan, Sarkar, Imran, 2018).

Example of implementation supporting quality management

The subject of investigations was a Polish producer of highly specialist tailor-made machines. The enterprise has implemented a system to support production management called IPOsystem™.

IPOsystem™ is a product of UiBS Teamwork Sp. z o.o., based on Microsoft SQL Server platform. The system functionality includes planning, controlling and recording of manufacturing activities. Planning takes into account the working time and the adjustment of resources to the processing of tasks, material availability as well as limitations in the performance of works in the form of retooling, brigade work and others. Tasks are allocated autonomously. Instructions for performing some work are given using a terminal, which is placed in the hall and connected to the server. The terminal, working in a Unique 125 kHz system, identifies the contractor by an RFID proximity card. It gives

orders to do some work and receives reports from an employee in an alternate way, which is a solution providing systematic information on the course of manufacturing works. Apart from current recording of the time of commencing and finishing technological operations, IPOsystem™ allows for a possibility of recording the number of half-products leaving the workstation as well as the number of rejects, for which the previously adopted classification of nonconformity causes is applied.

Moreover, the functionality of IPOsystem™ supports users in activities related to auditing the quality of materials, half-products and final products, thus enabling them to check compliance of the obtained evaluation with the requirements contained in constructional or technological documentation. Control is determined by prior declaring an order for a control operation – either a workstation or walk-around one - in the production technology, and granting relevant system permission to the controller. Workstation control takes place at a controller's measuring station, whereas walk-around control is performed at a workstation of a direct production employee as a response to call.

The controller is a user of IPOsystem™, who, using the functions of Quality Control window (Fig. 2.), downloads tasks, records the result of control and, in justified cases, stops his activities. The tasks are sequenced in the window according to their urgency, with a division into workplace control and walk-round inspection.

IPOsystem™ allows for simultaneous performance of a few control works and continuing the operation by another controller. Noting a positive outcome of the control results in giving an instruction to perform another operation, whereas a negative outcome immediately stops the production order. The order can be resumed after modifying the technology, as the default setting of the system is attempting to repair the defects. For this purpose, the order can be supplemented with additional repair operations, restoring the required quality of products as well as with an operation of conducting another quality check. The recording of unrepairable defects in IPOsystem™ results in an autonomic reduction of the number of products in the order. In the event there are a few major products in the order, the number of recorded defects indicates the number of defective sets.

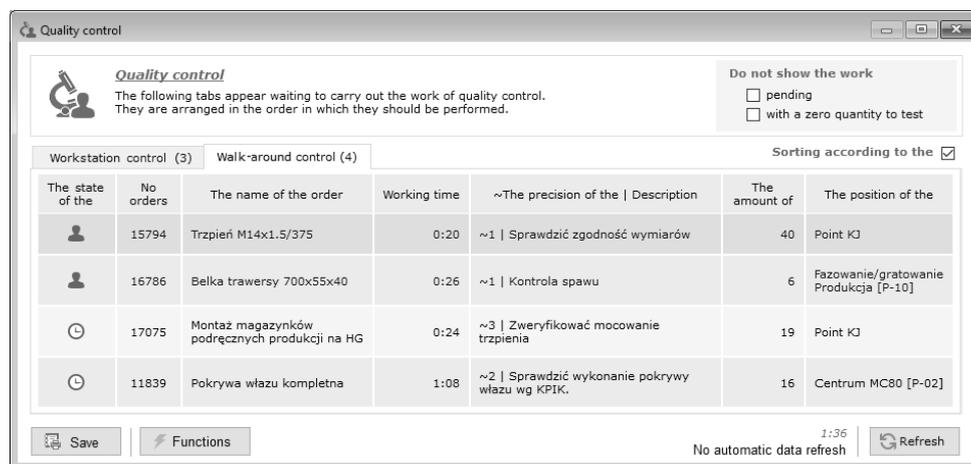


Figure 2. Quality Control window

Source: own elaboration

Evaluation of actions involved in the elimination of identified nonconformities complies with the adopted manner of production costs calculating. It has application in conjugated production (also known as combined or correlated), as a result of which three types of products are produced simultaneously from one raw material:

a main product whose production is the primary purpose of the company's operation;
 by-product, created accidentally, having a certain utility value, that can be sold or used for own needs;
 production waste — a worthless product requiring disposal or repair.

Calculation of production costs in IPOsystem™ is conducted on an object, that is the production order. Acceptance of products from production is carried out in accordance with the proportion reflecting the mutual quantitative correlation between main products in the order. The employee's report may additionally include reporting an identified nonconformity. This causes an automatic evaluation of the product, which takes into account both the cost of materials used and direct wages,

calculated on the basis of recorded hours worked by contractors. In the event corrective actions are taken, the technical cost of production is increased by the cost of operations which restore the initially planned quality of the product.

Conclusion

A measure of effective functioning of a production enterprise is an efficient flow of information integrated with a qualitative and quantitative stream of material flow. A solution increasing the flexibility of actions is implementation of IT systems to support production activity. Striving to achieve a product quality compliance with the customers' requirements is determined not only by the management support, but also by the awareness of employees with regard to eliminating the causes of production process disturbances. It is a basis for improvement of the company processes.

Improvement of the production process requires prior identification of defects and the causes of nonconformities. As IPOsystem™ forces continuous monitoring of events, which shows the occurrence of disturbances in the production process and corrective actions undertaken to remove a quality nonconformity, the technology diagrams are corrected on an ongoing basis. This solution ensures continuous improvement of the quality of products, because the updated technology is used in new orders.

Improvement of production processes is additionally supported by reports built into IPOsystem™. The scope of data collected in the data system enables the deviations from the plans and production costs to be evaluated. An extremely useful feature from IPOsystem™ is to conduct a comparative analysis of processes of various production orders which have an identical final effect but are started at different times. Unfortunately, the manufacturer did not foresee the possibility of creating new analyzes by users themselves. IPOsystem™ does not have the tools to design custom reports based on multi-level aggregation and dimensionality of data sharing, as well as combined queries that use data model relationships. It is also not possible to create a graphical presentation of the results obtained. However, since data is exported using standard recording formats, the search for event correlation may take place in the external environment. In the analyzed company, the results obtained in this way are used to indicate the most favourable conditions for running a business.

Noteworthy is also the intuitive and flexible interface of the IPOsystem™ system. The configuration options allow for customizing the application to the user's requirements, and multi-threading system operation allows simultaneous editing of many documents. Despite the fact that IPOsystem™ is an autonomous solution, the software producer provides a mechanism enabling integration with selected ERP class systems. It may involve bilateral data exchange, as is the case for the company under investigation.

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THE CONCEPT OF CORPORATE SOCIAL RESPONSIBILITY IN BANKS

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Abstract: Nowadays, corporate social responsibility is an important part of banking marketing. The commercial banks utilize its assumptions to actively support their image as a socially responsible establishment. The aim of this article is to present the concept of corporate social responsibility as an element of management and creating the image of a bank.

Keywords: sustainable development, corporate social responsibility, a socially responsible bank

Introduction

The modern businesses, including the banks, belong to the group of institutions serving society by achieving not only economic, but also social goals. That's why, within the framework of their operations, they increasingly strive to meet the expectations of society, in the field of connecting earlier, traditional tasks with completely new ones, executed as a part of sustainable development and socially responsible business.

A theoretical approach to the category of sustainable development.

A crucial challenge of modern economy, is to keep a sustainable social economic development, being an integral element of ecological and social economic politics, as well as different strategies of social economic development.

The concept of sustainable development serves as an economic category, which refers to the system identified as mutually infiltrating elements both economic, social and cultural (Krawczyk-Sokołowska, 2012, p.88). It appeared as an attempt to create the frames of managing the development. By putting together three basic dimensions, namely economy, society and environment, it applies to all economic entities (Keiner M, 2004, p.381).

The multithreading of subjects linked with the concept of sustainable development, results in a number of definitions and interpretations of this concept existing nowadays. Despite the diversified interpretation of the category of sustainable development, a majority of opinions contains a couple of shared elements, notably (Borys 2010):

- A sustainable development is a type of social economic development executed by people and for people,
- A sustainable development is a process, which integrates the whole of people's activity, generally brought down to three areas: economic, social and environmental,
- A sustainable development means a desired living environment and a responsible society, executing the concept of internal and intergenerational order.

While examining the matters of sustainable development, three of its basic recognitions can be distinguished. Usually, it is recognized as (Adamowicz, 2006, p.11):

- A social philosophic idea, which assumes a need for change in the people's value system,
- A modern direction of economic development, which assumes new ways of organizing and managing the economy,
- A newly emerging science discipline.

The sustainable development is also such development, that is executed in the following dimensions (Adamowicz, Smarzewska, 2009, p. 50): targeted, territorial and temporal. The targeted dimension of sustainable development is linked to an integration of social, economic and natural capital. The territorial dimension concerns the global responsibility for the executed solutions, even on the local scale. Meanwhile, the temporal dimension of sustainable development has both the synchronic character, meaning its universal and parallel implementation into the given generation, and diachronic dimension, including its development aims and methods of achieving them in the context of all humanity. (Sztumski, 2006, 74).

The concept of sustainable development is linked with a number of rules, which appeal to many problems and issues of universal character in the global scale. They include, among other things (Albińska, 2005, p.203-205; Borys, 1999, p.85-92):

- The ecological dimension: a rule of environment integrity, spatial planning, regionalization and concession of the right to use the resources of the environment, the cooperation in the range of protecting the environment,
- The economic dimension: the rule of greening the economy, not exceeding the environmental capacity, complexity and ecological unburdensomeness of protective activities, the polluter pays and the liquidation of pollutions at the source,
- The social dimension: the rule of socialization, the involvement of local government in protecting the environment, economizing and serving justice internal and intergenerational,
- Two or all dimensions: the rule of equivalence and integrity of conducted politics: economic, social and ecological, the universality of protection and rule of law.

The rules of sustainable development therefore appeal to many modern problems of ecological, social, economic and political nature. They not only provide guidance in the subject of proceeding during the process of solving specific problems, but also define the role of different subjects in solving them. In particular, they have an emphasis on the responsibilities of both the countries, and the person themselves, within the range of implementing the concept of sustainable development.

The main objective of sustainable development is then to ensure the natural bases of existence of each person, with a simultaneous introduction of economic, functional and esthetic order in the environment of activity. The concept of sustainable development is an example of global thinking. It takes into account many environmental and economic variables, which cumulatively shape the social economic development.

The idea of corporate social responsibility

The specific nature of sustainable development relies on the fact, that it is reflected in different ways in different sectors of the economy. However, there are some shared elements. One of them, undoubtedly can be the dissemination of the concept of Corporate Social Responsibility – CSR. The CSR concept is one of the most useful tools, not only in theory, but also in the management practice. The methods of management compatible with the idea of CSR greatly increase in value, especially in under conditions of constant changing environment of modern businesses, including banks, resulting from economic and social crises (Sokołowska, 2009, p.51).

There are many interpretations of corporate social responsibility. According to some, CSR is purely charity work, other treat it as activities from the range of public relations. Some argue, that CSR builds new, social side of economy, others think that it is just the next tool of competitive fight or a new strategy of management, and other people think that it is some kind of trend in managing your organization (Filek, 2008, p.26).

CSR is also understood as a style and strategy of management, based on multidimensional relations, which assumes a way of creating, not sharing the profits (Kroik, Bachorski-Rudnicki, 2011, p. 4).

Responsible business is moreover a strategic and long-term approach, based on the rules of social dialogue and seeking solutions beneficial for all parties interested (Rok, 2004, p.18). It's the business that is performed responsibly, in which the execution of basic goals of an enterprise is ensured by the proper shaping of relations with the main stakeholders, by complying with the rules of law and socially adopted ethical norms (Gasparski, 2007, p.403). The idea of corporate social responsibility can be boiled down to not only to complying with the existing law regulations, but also meeting the ethical expectation of society. It takes into account the economic, social and ecological aspects (Mikkila, Toppinen, 2008, p.500-506).

The corporate social responsibility is a way, in which a company can ensure a long-term competitive advantage. Its execution is done through handling current and gaining new customers, developing and introducing new products and services to the offer, and above all, by profitability. The corporate social responsibility therefore means achieving good financial results and gaining competitive advantage by building reputation and gaining the trust of people working in the given company, or in its surroundings (Tyszkiewicz, 20067, p.188).

However, regardless of the adopted concept, certain features distinguishing socially responsible activities can be singled out, such as (Kuraszko, 2010, p.83):

- Inclusion of ethical values in conducting the basic business activity;
- Fair fulfillment of the obligations;
- Application of clear business practices based on respect for the employees and community;
- Achieving long-term profit whilst reasonable building and strengthening of relations with every stakeholder;
- Using dialogue with the stakeholders for improvement of the business development strategy;
- Creating a competitive advantage strategy on the market, which is based on assurance of continued value, both for the shareholders, and for other stakeholders.

Execution of the Corporate Social Responsibility concept is treated more and more as a condition of maintaining and creating a good reputation by an organization. Additionally, bigger complexity and environment variability serve as one of the most important factors causing the necessity to quest for more sustainable development. This is why businesses, also including banks, increasingly often use the Corporate Social Responsibility concept (Dąbrowski, 2011, p.3-6).

Social responsibility in commercial banks' activity

Social business responsibility- CSR is associated with functioning of commercial banks, if they willingly take into consideration in their commercial activity and in its relation with clients, not only economic, but also social, ethical and ecological issues (Bąk, Kulawczuk, 2009). In the case of banks, until recently, social responsibility referred mainly to fulfilling the needs and meeting the expectations of shareholders. However, the global financial crisis emergence resulted in radical change in the CSR concept of commercial banks. These changes found their reflection mainly in shifting the strategy of conducting a banking business, which was targeted at restoring social trust.

Currently, social business responsibility has a key meaning for both the correct functioning of the bank, and achieving financial success. It happens so, because the activity the commercial banks is determined by constantly changing environment, in which the client is in the center of interest, or more specifically, his capital.

Unfortunately, the range of clients' expectations is constantly changing, and currently their demands not only concern the economic aspects. Finding effective ways of reaching the customers with their services, due to clients' growing expectations, becomes more and more difficult for the banks (Belás 2012, p. 119, Yeung 2011, p. 103).

Additionally it should be emphasized, that among the commercial banks' stakeholders, there are, next to mentioned customers, also shareholders, bank employees, local community and increasingly more non-governmental organizations. Therefore, banks' actions taken under CSR should provide benefits to all groups, and some require finding a compromise in fulfilling the needs of particular groups (Brown, Forster 2013, p. 307).

Furthermore, the necessity of utilizing the CSR concept by commercial banks derives from functions carried out for particular stakeholders (Korenik 2008, p.11). It applies mainly to commercial function, which is based on fulfilling the economic interests of the bank owners, whilst working towards bank's survival by developing an easement function, which relies on serving the economy and the society as well as it's possible (Korenik 2009, p.15). It's the servicing role of banks that finds its reflection in social responsibility of banking business concept. In this concept, the banks should act responsibly towards owners, as well as other interests groups, and take into account in its business, aside from economic aspects, also social, ethical and ecological aspects. Investing in proceedings in the CSR field aims to give a bank a good reputation and investors' loyalty, and in further perspective a competitive advantage (Wasilewska, 2009, p.45).

Introduction of the CSR concept in the banking sector requires, however, the fulfillment of a couple of important conditions, namely (Yeung 201, p.115):

- understanding the complexity of financial services,
- undertaking the risk evaluation,
- strengthening of business ethics,
- implementation of a suitable strategy for a possibility of a financial crisis,
- protection of customer's rights,
- implementation of a suitable internal and external management.

Both the method and the direction of balancing presented goals, decide of whether a certain bank should be considered as socially responsible, to what degree and in what scale.

Potential benefits accruing to organizations, including banks, related to socially responsible stances and behaviors, can be divided into three essential groups: The first one comprises of general business benefits, such as: increase of business' value, improvement of reputation, new business possibilities, enhancement of relations with stakeholders, fair competition. The second one are the operational benefits, that is: improvement of quality, stronger employees' loyalty, stronger loyalty of customers, higher efficiency, bigger innovation, safer partnership with co-operators, better risk control. Among the benefits of the third group, described as financial, can be indicated: cost saving, higher prices (revenue), strong development (more stable results), lower cost of capital, better ability to obtain capital (appeals more to investors) (Marcinkowska, 2010, p. 7-10).

Corporate social responsibility is therefore a fundament, on which a bank shapes its relations with the environment, considering the needs of everyone linked with the bank: customers, investors, employees, business partners and local community. A vast majority of banks operating in Poland engage in corporate social responsibility. There are many initiatives, that the banks credit with their brand and support financially.

Conclusion

Sustainable development makes a crucial fundament of creating and functioning as a good economy, and a role of financial institutions - especially the banks – is crucial in this process. The society expects the banks to take action in countering different kinds of social inequalities. This is why the actions of banks done for the society should line up with a socially sustainable development and be socially responsible.

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THE DEPENDENCE OF UNEMPLOYMENT OF SENIOR WORKFORCE UPON EXPLANATORY VARIABLES IN THE EUROPEAN UNION

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Abstract: The major objective of the paper is to recognize the dependence of the unemployment of the age category of 55-64 upon selected explanatory variables. The explanatory variables were selected and the expectations of their signs were presented in research design. The secondary data of Eurostat and OECD 2015 has been used, covering the twenty two member countries of the European Union (only the countries providing minimum wages were included). The econometric analysis, specifically the model specification and model quantification are the main method used in the paper. The main outcomes and relevance of the model, as well as its limitations have been compared with the findings of other authors in the discussion and implications for further research.

Keywords: EU, labour market, senior workforce, unemployment

Introduction

Nowadays, the European Union is experiencing unceasing trend of population ageing. On one side, Europeans are able to enjoy longer lifespans as the result of the increasing life expectancy at birth, but on the other side there is ongoing trend of decreasing fertility rates in the European Union.

Background

With the declining numbers of economically active inhabitants, the labour market of the European Union will be forced to face multiple challenges in the near future. The phenomenon of population ageing is expected to continue in next decades as the post war baby-boom generation is about to reach the retirement age (Dufek, Minařík, 2009, Blankenau et al., 2007) The process of increasing retirement age has already started in the EU, and the inhabitants of the European Union will have to be actively participated at the labour market for longer time periods (Börsch-Supan, et al. 2007, Gonzales-Eiras, Niepelt, 2012, Boons et al., 2013).

Methodology of the research

The multiple linear regression analysis, particularly specification and quantification of the model has been used for the results of the paper. The last part of regression analysis, the verification of the model was not published into the paper due to the limited space. The model specification has been constructed of three basic steps: the specification of all variables included in the model, in accordance with a priori information obtained from the economic theory and the data, the specification of the expected signs and values of the independent variables and the specification of the model equation must play a part. The model quantification has been used for the estimation of the numerical values of the model and its parameters by appropriately chosen procedures designed for econometric estimation.

Data

Data were collected for the reference year 2015, from the Eurostat and OECD, as these were the most recent data at the time of writing the paper (OECD, 2017).

The sample size has twenty-two member countries of the European Union, namely: Belgium, Bulgaria, Croatia, the Czech Republic, Estonia, France, Germany, Greece, Hungary, Ireland, Latvia, Lithuania, Luxemburg, Malta, the Netherlands, Poland, Portugal, Romania, the Slovak Republic, Slovenia, Spain, and the United Kingdom. The data for independent variable monthly minimum wage were available only for twenty two EU member countries, as there has been six countries in the European Union, which do not set the statutory minimum wages. This indicator was, from the authors' point of view, very crucial in the analysis, which was the main reason why the regression analysis contains only twenty two EU member countries.

Specification of variables

The dependent variable has been expressed as a percentage and it reflects the number of unemployed people from 55 to 64 years old over the active labour force in the same age class. The independent variables have characterized influences or causes of dependent variable. The main factors which might eventually affect or cause the unemployment of age category 55-64 have been as followed: long term unemployment, total unemployment, social benefits for the unemployed, monthly minimum wages, average age of retirement for men, average age of retirement for women, duration of working life, productivity, technology, gross domestic product, inflation, immigration and emigration, and membership in the Euro area.

Results

Summary statistics of variables

The summary statistics has been obtained for the dependent variable, as well as for all independent variables with the exception of the dummy variable which symbolizes membership in the Euro area. The summary statistics reflects values for mean, median, minimum, maximum, standard deviation, and coefficient of variation, skewness, and kurtosis. The summary statistics has been illustrated in the table below.

Table 1. Summary statistics

Variable	Mean	Median	Minimum	Maximum	Standard deviation	Coeff of variation	Skewness	Kurtosis
Unemployment of age category 55-64	8,00	7,60	3,50	18,60	4,06	0,51	1,33	1,19
Long-term unemployment	5,10	4,10	1,60	18,20	3,93	0,77	1,98	3,81
Unemployment total	9,87	8,85	4,70	25,10	5,27	0,53	1,71	2,25
Monthly minimum wage	795,77	636,47	184,07	1922,96	542,81	0,68	0,64	-1,08
Average age of retirement Men	64,52	65,00	62,00	67,00	1,36	0,02	-0,51	-0,62
Average age of retirement Women	63,48	63,72	60,00	67,00	2,09	0,03	-0,08	-1,39
Duration of working life	34,66	34,55	32,10	39,90	2,20	0,06	0,86	-0,17
Productivity	106,91	104,45	95,50	129,50	7,41	0,07	1,50	2,32
GDP	94,86	80,00	46,00	271,00	46,97	0,50	2,51	7,08
Inflation	-0,11	0,05	-1,10	1,20	0,57	4,98	0,07	-0,15

Source: Gretl, edited by author

Mean value of the unemployment of the age category 55-64 in twenty-two member countries of the European Union has been equal to 8%. However, the mean statistic can, in many cases, has been influenced by the extreme values which might been present in the dataset. Its explanatory power has been therefore considered to be worse, compared to the median. In order to obtain median value from the dataset, numbers must be sorted from the lowest to the highest value. Median represents the middle number in the sorted list of numbers. Median value of the dependent variable has been 7.6%. Put differently, the unemployment of the age category 55-64 has been in fifty present of twenty-two member states of the European Union higher than 7.6%, and in fifty present of the investigated EU member countries it has been lower than 7.6%. Minimum and maximum stand for the minimum and maximum values within the dataset. Minimum value of the unemployment of age category 55-64 in twenty-two member states of the European Union has been 3.5% and the maximum value has been equal to 18.6%. Standard deviation represents the dispersion of the dataset from its mean. The closer the data are to the mean, the smaller the deviation in the dataset is. In the case of the unemployment of

age category 55-64, the standard deviation has not been very high, which indicates that the data were relatively close to its mean. The coefficient of variation has been also called relative standard deviation and it measures the dispersion of the data points in a data series around the mean. In other words, it has been the ration of the standard deviation to the mean. The coefficient of variation for the dependent variable has been slightly higher than 0.5.

Multiple X-Y scatter plots

The relationship between the dependent variable and individual explanatory variables might be recognized by demonstrating multiple X-Y scatter plots.

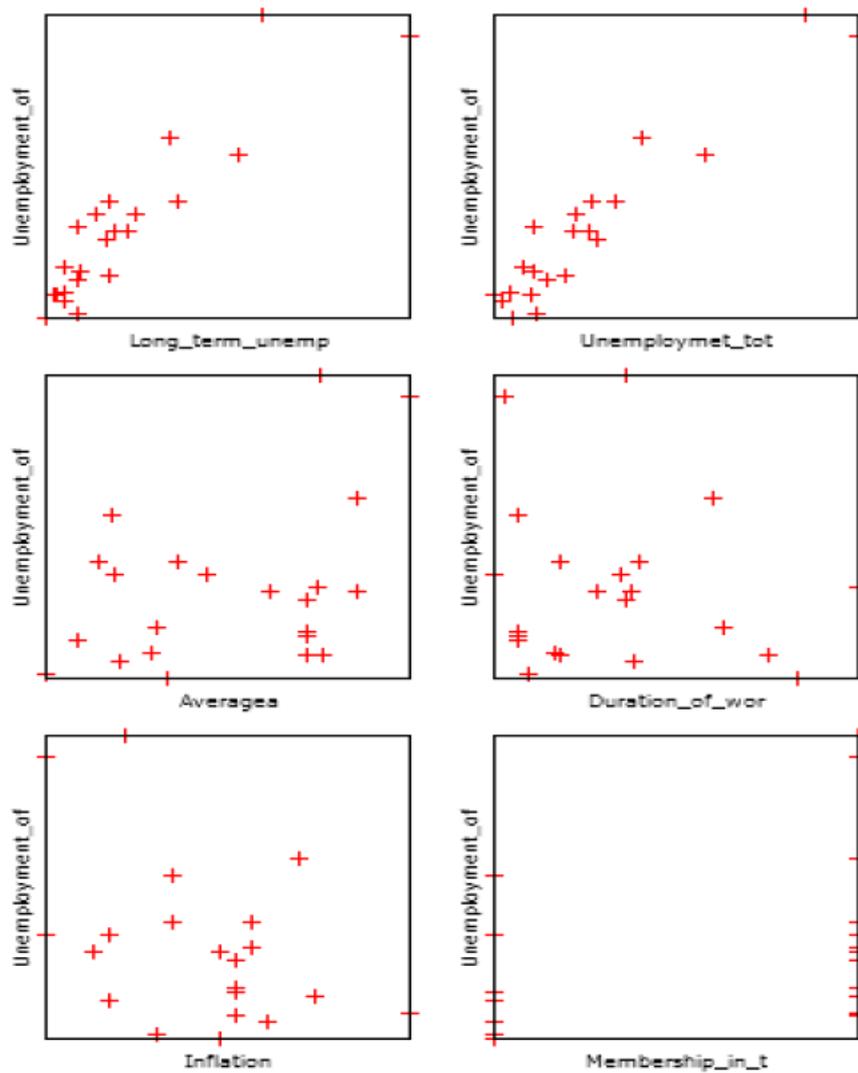


Figure 1. The scatter plots

Source: Gretl, elaborated by authors

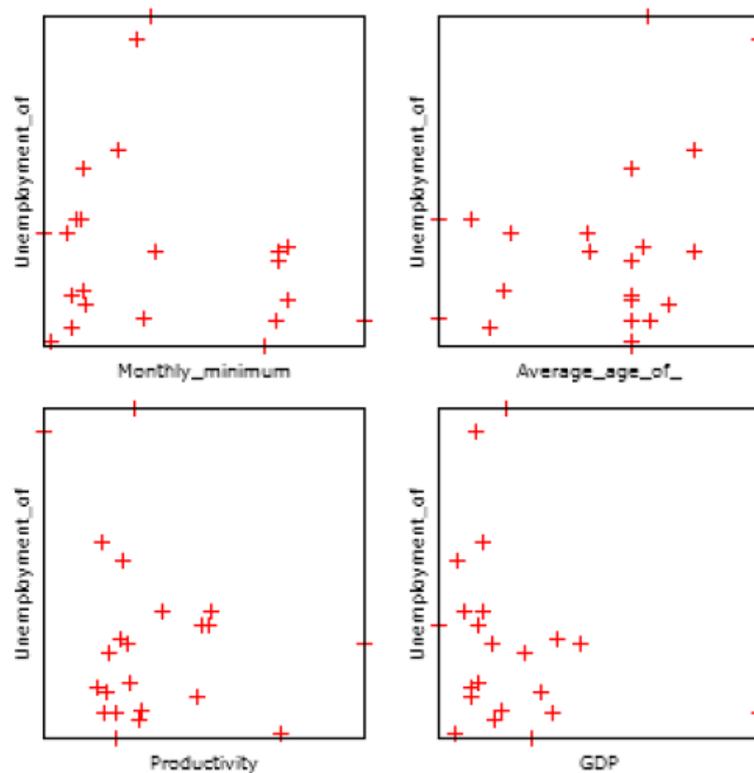


Figure 2. The scatter plots

Source: Gretl, elaborated by authors

The scatter plots as seen in the figure show the relationships between individual independent variables and the dependent variable unemployment of age category 55-64. Although, there has been perceived positive correlation between unemployment of age category 55-64 and long-term unemployment, and the total unemployment, the other explanatory variables do not report strong positive correlation.

Model quantification

The coefficients and p-values has been estimated by the Ordinary Least Squares method (OLS). The T-test has been used for testing the statistical significance of the regression coefficients. The level of significance has been $\alpha = 0.05$. The null hypothesis has been rejected if p-value is smaller than the significance level. At the beginning, the T-test has been run for all variables, and subsequently, not significant variables has been removed from the model. Thus, sequential selection method has been used. Test hypotheses has been as followed: H0: Parameter is not statistically significant. H1: Parameter is statistically significant.

Table 2. OLS for the original model

Variable	Coefficient	Std. Error	T-ratio	P-value
Constant	-18.904	17.266	-1.095	0.297
Long-term unemployment	-0.209	0.258	-0.808	0.436
Unemployment total	0.854	0.185	4.619	0.001
Monthly minimum wage	-0.002	0.001	-1.900	0.084
Average age of retirement Men	-0.274	0.363	-0.753	0.467
Average age of retirement Women	0.405	0.248	1.634	0.130
Duration of working life	0.320	0.131	2.441	0.033
Productivity	0.012	0.036	0.327	0.750

GDP	0.005	0.010	0.475	0.644
Inflation	-0.225	0.543	-0.414	0.687
Membership in the Euro area	0.330	0.944	0.350	0.733
R-squared	0.966		Adjusted R-squared	0.935
F(10, 11)	31.224		P-value(F)	<0.001
Log-likelihood	-24.331		Akaike criterion	70.661
Schwarz criterion	82.663		Hannan-Quinn	73.489

Source: Gretl, edited by authors

The presented table indicates that only two out of ten explanatory variables has been statistically significant as their p-values were smaller than the level of significance. These two variables are total unemployment and duration of working life. However, the p-value of monthly minimum wage has been smaller than the level of significance $\alpha = 0.10$, the parameter has been therefore significant, as well. The adjusted coefficient of correlation has been equal to 0.935, which means that the model has been explained by 93.5%. It has been necessary to further modify the model in order to obtain more precise results. After gradual removing of statistically not significant variables, the following model has been obtained.

Table 3. The OLS for modified model

Variable	Coefficient	Std. Error	T-ratio	P-value
Constant	-30.889	9.484	-3.257	0.005
Unemployment total	0.697	0.053	13.173	<0.001
Monthly minimum wage	-0.002	0.001	-3.028	0.008
Average age of retirement Women	0.339	0.158	2.145	0.047
Duration of working life	0.342	0.112	3.055	0.007
R-squared	0.952		Adjusted R-squared	0.941
F(4, 17)	85.041		P-value(F)	<0.001
Log-likelihood	-28.022		Akaike criterion	66.044
Schwarz criterion	71.499		Hannan-Quinn	67.329

Source: Gretl, edited by authors

The final modified model has been created by gradual removing of statistically not significant variables. Productivity, as the explanatory variable with the highest p-value, has been removed first. It has been followed by inflation, membership in the Euro area, GDP, long term unemployment, and average age of retirement for men. The final model contains four explanatory variables which have been statistically significant at the significance level $\alpha = 0.05$. For all four independent variables, the null hypothesis of the T-test has been rejected in favour of the alternative hypothesis. The final modified model has been explained by 94.1%. In the original model, there have been parameters which affect the unemployment of age category 55-64 directly (for instance monthly minimum wage, average age of retirement and duration of working life) and indirectly. The indirect variables have been general factors and they were step by step removed from the model. The linear function form has been considered to be the most suitable for the model. The regression equation of the model has been presented at the following figure:

$$Y = -30.889 + 0.697X_2 - 0.002X_3 + 0.339X_5 + 0.342X_6 \quad (1)$$

where: Y – Unemployment of age category 55-64, X_2 – Total unemployment, X_3 – Monthly minimum wage, X_5 – Average age of retirement for women, X_6 – Duration of working life.

Discussion

Estimated signs of independent variables total unemployment, monthly minimum wage, and average age of retirement for women were in accordance with the expectations. Thus, the estimated signs were consistent with the economic theory. Bocean (2015) analysed, besides many other factors,

the influence of minimum wage setting on the unemployment for all member countries of the European Union, while the thesis is dealing only with twenty-two member countries of the European Union. He was working with the time-series datasets from 2003 to 2013. Mitsis (2015) was dealing with the question how minimum wages affect total employment. He examined the case of Cyprus in the time period 1960-2011. Vector auto regression (VAR) models concluded that an increase in minimum wage settings brought negative impact on the employment. Lefèbvre (2012) examined the relationship between unemployment and retirement. He analysed the panel data of twelve OECD countries: Australia, Canada, Finland, France, Germany, the Netherlands, Norway, Portugal, Spain, Sweden, the UK, and the USA, of the time period 1982-2003. The Australian research by authors Staubli, Zweimüller (2011) was also oriented on the relationship between retirement age and employment of older people. The authors analysed men aged from 60 to 62.2 and women aged from 55 to 57.2, from year 2000 to 2006. Virjan, Certu (2015) analysed the correlation between employment and productivity of the age category 55-64 years in Romania. They found out that there was not a strict correlation between labour productivity of older people and the employment rate. Rožman, Treven, Čančer (2016) analysed the differences between older and younger employees. In order to recognize the differences in stereotypes in workplaces between the two age groups, they used non-parametric Mann-Whitney U test. Popović, Popović (2011) completed the research on dynamics and correlation between inflation and unemployment in the European Union for various time periods (1998-2007, 2000-2009, and 2000-2006). Khan, Saboor, Mian, Anwar (2013) has recognised possible relationship between real GDP growth and unemployment rate. They analysed Pakistan's time series annual datasets from 1976 to 2010. Hassan, Nassar (2015) researched the relationship between unemployment rate, percent debt and GDP. Conversely, the estimated sign of the explanatory variable duration of working life was not consistent with the expected sign. Within the specification of the expected signs of independent variables, negative correlation between unemployment of age category 55-64 and duration of working life was expected. The estimated relationship showed that if there was a one year increase in the duration of working life, the unemployment of age category 55-64 would also increase by 0.342%.

Conclusion

Detected inconsistency led the author to re-explore the theoretical foundations of the model which culminated into a specification treatment: the shorter the duration of working life, the lower the probability that labour force aged from 55 to 64 would be unemployed, as with the shorter duration of working life, older people were expected to retire earlier, which was in turn expected to decrease the unemployment of age class 55-64. The scatter plot of the unemployment of age category 55-64 and total unemployment clearly indicated positive correlation between these two variables. The various limitations should be also pointed out. The original model has been composed of ten independent variables. However, there have been many other variables which could eventually cause, or at least influence the unemployment of age category 55-64. A very crucial independent variable has been social benefits for unemployed. This variable has not been included in the model because the datasets. The sample size consisted of twenty-two member countries of the European Union, there has been independent variable „the monthly minimum wage“ included only the mentioned twenty-two countries, as there are six countries of the European Union which do not apply general statutory minimum wage.

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VIRTUALIZATION OF ACADEMIC TEACHER 'S WORK

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Abstract: As the evolution of technology is constant, it is natural that institutions are facing drastic changes (Bonilla, Rodriguez, Marin, Garcia, 2016, p. 85) . Virtual work, which is incredibly debatable and still unclearly defined, has been used by enterprises for some time. Here, the main rationale is cost effectiveness, as well as in terms of work organization as resource management. However, recently it has also started supporting work at universities where the computerization of their activity is rapidly growing, especially regarding the education process.

Observations, while also interest in computerization and the willingness to apply virtualization more widely all contributed to the afore-mentioned research study concerning the virtualization of academic teachers' performance. The aim of this paper is to present the specific process connected with the virtualization of teachers' work.

The hypothesis assumes that universities tend to expand virtualization in the scope of their activity and education process. In order to gather empirical data, a qualitative method including free-form interviews was applied. So far, university teachers from the three selected Polish universities (University of Social Sciences, University of Lodz, University of Finance and Management) have been interviewed. Research is underway. On this basis, a report will be made on the virtualisation of the work of academic teachers. This document will contain empirical research, as well as results using the appropriate visual methods. This will allow a better analysis of the examined problem, as well as facilitating more advanced conclusions.

Keywords: e-teachers, e-work, ICT, virtualization

Introduction

For some time we have witnessed significant changes in the functioning of the organization. Scientific and technical progress and organizational progress is so great today that it requires the continuing market transformation of the organization of services, production and the way in which it functions. Competitiveness, access to key employees, individualisation of success are influencing the need to create modern organizational arrangements in which knowledge and human capital play a key role (Hajor (Ed.), 2017; Hormig, 2017, p 34). It is important to draw attention to the efficient use of resources, with particular emphasis on "the only" resources "capable of expanding (...) human resources ... (...) all others are subject to the laws of mechanics. They can be used better or worse, but they can not give more than the sum of what is inserted" (Drucker, 1998, p. 27).

It is human capital that influences the development of a new economy model - the "knowledge economy", where the main emphasis is on the utilization of human potential (Applehans, Globe, Laugero, 1999; Wong & Laschinger, 2013, p.105).

Knowledge, key competencies and skills of employees are the success stories of organizations (Kaplan & Norton, 2001, p.230).

They decide whether companies will be competitive and reach as many potential customers as both employees and consumers.

The aim of this paper is to present the specific process connected with virtualization teachers work.

In the first part of our article we describe specific using ICT tools at work and process of virtualization. The importance and power of knowledge generation by experts has been further strengthened by the development of Information Communication Technology (ICT). This has made it possible to reach out to the best employees who can work with each other without any restrictions. They can exchange knowledge, ideas. Create creative networks that empower their intellectual potential as well as the organization they work for on a number of occasions.

ICT has developed the idea of virtual work by creating virtual teams. They include groups of people who work together to accomplish a specific project or task. Members work together though in geographic dispersion. They do not meet every day, they can live in different time zones and come from different cultures (Lyman, 2003, p.15).

Virtual work, though incredibly debatable and definitionless, has been used by companies for some time. The main premise here is the cost savings of both work organization and resource management. However, recently it has also become an element supporting the process of work at higher education institutions, where the development of computerization of the activity is quite rapid - including education.

In the second part we would like to show how virtualization process is using by Poland University to improve teacher's work. We present some results of our research contented with implementation virtualization at very specific kind of work.

Observation of interest and the desire to use virtualisation increasingly has become the focus of research into the virtualisation of academic teacher work. It is hypothesized that higher education institutions will increasingly seek to increase virtualization work and educational process. The qualitative method was used to collect empirical data in the form of casual interviews. Up to now, interviews with academics have been conducted with 3 selected Polish universities (Academy of Social Sciences, University of Łódź, School of Finance and Management).

Explorations show that academics are increasingly using the library network to find the information they need on important topics. They also take classes using modern technologies - remote teaching.

However, not only this form of virtualization is beginning to be present in their work. They show an interest in working with a broader scientific community just across the web. They create working groups that together develop interdisciplinary, supra-local or international projects. They seek and want to actively participate in the expert community in which they create and exchange knowledge. They are interested in creating so called. Strategies for sparring partners, corporate portals, where they can transfer knowledge through open source communities, enriching their own intellectual resources, but also force others to share it.

Academic teachers are interested in publishing online. This gives them a better chance of presenting their own scientific achievements and getting to know the work of others. Working through the network gives you a better chance of being recognized in the scientific world, which becomes a tool for building your own professional portfolio (as well as building corporate image). Virtualization of work (beside threats) creates many opportunities for academic teachers but also for scientific and educational centers themselves.

An interesting conclusion from the interviews is that the academic teachers and the institutions they work on using modern ICT in science and education work occasionally use the name remote / virtual teacher or remote / virtual work.

Research is underway. Based on this, a report will be made on the virtualisation of the work of academic teachers.

Virtualization of organization

The 21st century is considered the period of eventful and riotous changes when information was predominant. Information and ICT became an essential element of social life and for businesses – a strategic resource being sort of “window to the world” bringing new opportunities. They also entail lots of transformations within an organization and all business processes that are realised. As Information Communication Technology develops, its application not only starts to vastly contribute to enterprise performance improvement and competitive advantage, but also becomes an important factor measuring the level of satisfaction of potential beneficiaries of products and services, thus meeting their expectations.

Contemporary companies pursuing their aims and striving for success, have to be very active permanently elaborating on new concepts, absorbing new ideas and creating new values. It is often said that nowadays only flexible businesses adapting their activity to increasingly dynamic and globalizing environment will develop and survive in the market. These organizations have to find a proper way of achieving greater effectiveness while confronting with market challenges and consumers' expectations. The above-mentioned alterations contribute to the emergence of completely new organizational forms or introduce some new elements into already-existing, traditional organizations (Grudzewski, Hejduk, 2002, p.9).

Virtual organization is generally perceived as one of the management concepts, which to a large extent reflects social and technological changes taking place within an organization, especially ICT development and ICT-related business activity globalization processes. As a peculiar organizational metaphor, virtual organization scheme is a consequence of the so-called information society, and above all - the computer sector, hence the word “virtual” appeared in organization and management science.

The notion of virtualization is overused. It is frequently treated like a key word to understand organizational reality. Therefore, one ought to wonder if this notion is just trendy, although unmeaningful, or whether it carries an important message for all organizations operating at the outset of the third millennium. As the notion of virtualization is relatively new, compound and ambiguous, it seems to be justified to find the answer to the question about its essence and relevance, basic features, and the rationale for using it.

Within organization and management science N. Venkatraman and C. Henderson defined virtuality as organization's ability to perpetually choose and coordinate key competences while designing business processes and management strategies, which encompass as well external entities as internal elements involved in creating a specific and unique value offered in the market (Venkatraman, Henderson 1998, p.18). A crucial role in this process is mainly played by information technology.

Virtual teams

Virtual team is a group of people working upon a common venture and having a common goal. The main characteristic of this type of cooperation is using information technologies while communicating and delivering work results between team members. This type of organization also include the following features:

- separating team members as a result of geographic dispersion,
- leading effective communication through ICT tools,
- different organizational appurtenance,
- diverse duration of virtual teal operation.

While discussing virtual teams, one of the criteria is geographic dispersion, which means that team members work remotely in distantly-located places, with no physical contact. Another criterion can be the time. It is important to increase team's effectiveness and use potential of employees working in different time zones.

The major aim of virtual teams is to help an organization with succeeding through growing its operational effectiveness and efficiency. One of the biggest advantages of such an atypical organization is the possibility reaching staff, who can be freely hired regardless of their geographic nationality, thus levelling any limitations in free access to human resources. It lets an organization not only find competent fellow workers, but is also cost-effective (employment costs are very high; there is no need to increase salaries due to housing benefits, in the distant, local markets there might occur greater supply of employees needed than salary requirements at the company's headquarters). An additional benefit while trimming overhead costs is minimizing rental property expenses, the number of employees and vacancies. The hot desking idea has become popular. It is an office organization system which involves multiple workers using a single physical work station or surface during different time periods. It is possible if most of tasks can be performed outside the headquarters. In many cases an organization having virtual teams can replace face-to-face meetings arranged in the office by videoconferences. In some specific cases office maintenance costs might be utterly eliminated and the employees can perform their virtual or remote work in their residence e..g. at homes or some telecentres. Regarding some organizations' strategic aims, those enterprises which operate in big agglomerations may hugely benefit from building virtual teams (Gressgård, 2011. pp. 102-119).

Virtualization of university teachers' work

Virtual work, which is incredibly debatable and still unclearly defined, has been used by enterprises for some time. Here the main rationale is cost effectiveness as well in terms of work organization as resource management. However, recently it has also started supporting work at universities where computerization of their activity is rapidly growing, especially regarding education process. Higher education priorities are now changing through visualization and are also a result of the growing role of universities in the socio-economic development of society. (Vasilyevna, Borisovna, Nikolaevich, Vitalievna, Genadjevna, 2017, p.11). That's why "organisational culture of higher education institutions is a comple symbolic construct consisting of a number of subcultures" (Sułkowski, Seliga, Woźniak, 2017, p. 10).

Observation, interest in computerization and the willingness to apply virtualization more widely contributed to the above research study concerning the virtualization of academic teachers' performance. The prime objective of the research study is to show an upturn tendency in remote work application and virtual team creation by research and academic staff members at Higher Education Institutions in Poland. The hypothesis assumes that universities tend to expand virtualization in the scope of their activity and education process. In order to gather empirical data, a qualitative method including free-form interviews was applied. In the above article a small part of the material from free interviews-related pilot studies was selected. Twenty academic teachers from the three selected Polish universities (University of Social Sciences, University of Lodz, University of Finance and Management) have been interviewed. For the time being the achieved results are not representative, but they depict the direction of changes to academic staff members' work.

The preliminary results indicate that university teachers use ICT for library purposes and seek indispensable information on relevant subject-related websites. They also conduct classes or lectures remotely (using ICT tools).

However, not only this form of virtualisation accompanies their work. Academic teachers want to cooperate with a wider scientific environment through network. They form working teams, within which they elaborate on interdisciplinary, supra-local or international projects. They crave for active participation in expert communities, under which they share and exchange knowledge. They are interested in creating the so-called sparring-partner strategies - an equivalent of corporate portals, within which they can transfer knowledge openly. On the one hand they enrich their own intellectual resources, and they extort knowledge-sharing process on the other.

Academic staff members are eagerly interested in publicising through network. It allows them to share their scientific achievements as and get familiar with others' output. Network-based work boosts recognition in the scientific environment, which becomes a great tool used for building one's own professional portfolio. Work virtualization (apart from dangers) gives as well university teachers as research and education centres plenty of opportunities for development.

University teachers build their professional portfolio more and more often. They are also interested in publishing their achievements on available research and education portals. Thanks to them they shape their image, not only through their workplace, but also having an influence on the content they want to publicise. The easiest tool which is widely used by the surveyed is e.g. Google Scholar. It is a brand new trend indicating broadly defined individualization of building one's own career path and national or overseas cooperation with a scientific environment.

A very interesting conclusion from free-form interviews is that academics and institutions where they are employed using advanced technologies in their academic work hardly ever use the name "remote/ virtual teacher" or "remote/ virtual work".

Conclusion

The gathered material indicates the inevitable necessity or even the requirement of using ICT tools in almost every form of a teacher's work. It can be said that it becomes a prerequisite in a teacher's occupation. Virtualization is not only a form of communication with a student, but also a form of an academic's participation in student community life. Virtualization cannot be seen only as a cost-effective factor for organizational processes. For this reason, the awareness of people managing education centers must change in terms of perception of work organization and individuals performing the tasks. Virtual work does not replace work in real life, and a virtual worker is not a person working on the organization's periphery. It is just a person who performs their work online. Preliminary research studies indicate the need to take this duality into account in the work organization of higher education institutions in relation to academic staff members. Building the awareness of work virtualization requires the management style reorganization, work organization, and equipping employees with the necessary tools. The research results show that the reluctance to implement virtualization system (as a conscious and responsible work process) derives from imprecise provisions on health and safety issues at work. Accidents at work, overtime, equipment or electricity-related settlements should be clearly specified. The Polish labor code introduces the concept of remote work - as a consequence of virtualization - but it is not specified how the responsibility for arranging a workstation for virtual workers is shared. This situation also entails some reluctance to build

awareness of taking responsibility for implementing work virtualization as an important and modern way of functioning staff at university. The results presented are at a initial stage, but the further studies will be continued and carried out both among teachers and people managing the scientific and didactic facilities. It should be pointed out that in order to gather as much empirical data as possible, triangulation of methods, techniques and research tools from quantitative to qualitative ones have been used. The collected and edited materials in the final form will be revealed in the form of a report published in the book on virtualization of academics' performance.

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THE YOUNG POLISH GENERATION IN THE REALITY OF THE ECONOMY – BUSINESS ACTIVITY AND ENTREPRENEURSHIP

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Abstract: Economic development depends on people's activity and entrepreneurship, especially amongst the young generation who are the pioneers of social changes. The purpose of the paper is to diagnose the activity and entrepreneurship amongst Polish students, as compared to the students of other V4 countries. The types of students will be constructed, depending on their activity and entrepreneurship. The concept of entrepreneurship will be used as an element of the economic culture. An analysis will be presented on the basis of empirical studies performed amongst the students of V4 countries.

Keywords: Polish young generation, entrepreneurship, economic activity

Introduction

A popular view increasingly promoted these days is that economic development depends, to an ever-growing degree, on the human capital. This is because the economic life blends with the social life. The economy (the market) is integrally connected with the society and its culture (Stough 2016). The institutional space is a bridge between the realm of economic and social phenomena. The activities of social actors are permeated with the rules of the so-called culturally limited rationality. Therefore, it is the cultural values that become the driving force behind human activities (Stough 2016, Linan, Fernandez-Serrano 2014). An essential role in diagnosing this process is played by sociological research exploring one of the components of economic awareness, namely activity and entrepreneurship. This is particularly true for the young generation who are usually the pioneers of social changes. The purpose of the paper is to:

1. Diagnose the activity and entrepreneurship of the young Polish generation (students). A comparison will be made with students from the remaining V4 countries.
2. Construct various types of students, depending on their activity and entrepreneurship.

Theoretical part of the study - business activity and entrepreneurship as an element of the economic awareness

Searching for the links between humans and the functioning of the economy is one of the basic research problems undertaken by social sciences. Until recently, experts claimed that the economy functions on the basis of three production factors, namely work, land (natural resources) and capital. However, a significant role is played by the human capital with its economic awareness. It concerned all elements of economic consciousness: knowledge, value system and economic aspirations, work and entrepreneurship, the attitude towards wealth and poverty, attitude towards money and thriftiness, and consumption (Swadźba 2017, p. 870). It is assumed that economic awareness includes value systems, cognitive schemes and behavioural patterns which are related to management (Ireland, Tihanyi, Webb 2008, Swadźba 2017, p. 870). This definition also encompasses entrepreneurship as one of the components of the economic awareness (Swadźba 2017, p. 870). Self-employment and running a business are not fully used as tools for boosting economic growth and creating new jobs (Druker 1992, Marody, Kochanowicz 2007, Rantanen, Toikko 2017).

The classical theory of entrepreneurship was developed and consolidated in the literature by J. Schumpeter, who perceived an entrepreneur as a person characterised by innovative activity to pursue new concepts (Schumpeter 1962). These include anticipation, moderate tendency to take risks, flexibility, creativity, independence, problem-solving abilities, the drive to achieve, leadership and the ability to work hard (Piecuch 2010, p. 39, Linan, Fernandez-Serrano 2014). Our understanding of entrepreneurship also encompasses all measures taken to achieve a better position in life, such as raising one's qualifications, labour migrations within the country and abroad (permanent or seasonal),

as well as all other activities aimed at finding a better job (Swadźba 2017, p. 872). This article will primarily focus on the propensities for activity and entrepreneurship as well as on the plans to set up one's own business.

Methodological part

The empirical analysis is based on the research was conducted in April–May 2015 and November 2016, in four V4 countries – Katowice, Poland (University of Economics in Katowice, University of Silesia in Katowice and Silesian University of Technology), Olomouc and Ostrava, Czech Republic (Palacky University in Olomouc, University of Ostrava and Technical University of Ostrava), Nitra, Slovakia (Constantine the Philosopher University in Nitra and Slovak University of Agriculture in Nitra), Godollo, Hungary (Szent Istvan University in Godollo). The empirical analysis is part of the Visegrad Standard Grant: “The economic awareness of the young generation of Visegrad countries” no. 21420008 (2015-2016).

Firstly, a common questionnaire survey was prepared in English and then it was translated into national languages. The questionnaire included 37 extended questions (all elements economic awareness) and 10 about socio-demographic characteristics.

In every country groups of students were selected to take part in the research using an auditor survey technique. The research was based on first and second level students from four different types of studies: economics and management, technical, sciences or medical, social studies, humanities. In Poland 400 surveys were conducted, in the Czech Republic 400, in Slovakia 387, in Hungary 368. Jointly 1555 surveys from four V4 countries were conducted and directed for further analysis. The collected large empirical material. It was encoded and statistically analyzed using the SPSS program. Four statistical bases have emerged for further analysis: Polish, Czechs, Slovakian and Hungarian.

The article will focus only on answers to questions about the entrepreneurship of Polish students. The analysis has been answered in two questions:

First question: “Please indicate which of the following statements best characterises you.” The statements presented above can be divided into two groups. Choosing one of the first five (S.1. When I plan something, I usually manage to materialize, S.2. I can achieve whatever I want in life, if I work on it, S.3. I am not afraid of new challenges in life, S.4. I am not afraid of risk if I have a goal to reach, S. 5. I believe that my future depends on me) indicates activity and entrepreneurship, while choosing statements from 6 to 9 demonstrates passivity (S.6. If I fail, I don't make further attempts to achieve my goals, S.7. I avoid difficult situations, even if it means that I will achieve less, S.8. I often start something, but then feel discouraged and give up, S.9. I believe that in difficult situations, I am entitled to help from the state). The students were requested to choose 3.

The second question: Do you take into account the possibility of setting up or running your own business? Select one option: (S.1. I already own (co-own) a private company, S. 2. I want to soon start my own company, S.3. I'm thinking of starting my own business in the future, S.4. I have thought about it, but have not decided, S. 5. I do not take this into account in my plans for life, S. 6. I had my own company and do not intend to assume the next, S. 7. Hard to say).

The results will be presented in the tables (in percentage data) and correlations with Chi-square and Cramer's V. On the Polish research conducted in three Katowice-based universities, namely the University of Silesia, the Silesian University of Technology and the University of Economics. The respondents included 45% of men and 55% of women, who studied at four faculties, namely polytechnic, economics, social and arts/humanistic (approximately 25% each).

Discussion part

Students about their own activity and entrepreneurship

Economic development depends not only on the technological progress but, above all, on the activity and entrepreneurship of community members. Therefore, sociological research is aimed at answering whether specific social categories or entire communities show enterprising attitudes. The following question was used in the students' survey:

Table 1. Please indicate which of the following statements best characterises you. Select 3 options: N = 400

Answers:	Gender		Field of study				Total
	Male	Female	P	E	S	H	
S.1. When I plan something, I usually manage to materialize	45.0	43.3	47.5	46.7	40.7	41.9	44.3
S.2. I can achieve whatever I want in life, if I work on it	60.6	66.8	61.6	57.0	73.1	64.0	64.0
S.3. I am not afraid of new challenges in life	28.3	28.2	29.3	30.8	23.1	30.2	28.2
S.4. I am not afraid of risk if I have a goal to reach	35.6	23.6	31.0	28.0	25.0	26.7	29.0
S. 5. I believe that my future depends on me	67.2	70.9	62.6	68.2	75.0	70.9	69.3
S.6. If I fail, I don't make further attempts to achieve my goals	4.4	4.5	5.1	0.0	4.6	9.3	4.5
S.7. I avoid difficult situations, even if it means that I will achieve less	18.9	16.8	18.2	18.7	17.6	16.3	17.8
S.8. I often start something, but then feel discouraged and give up.	28.3	29.1	24.2	30.8	29.6	30.2	28.7
S.9. I believe that in difficult situations, I am entitled to help from the state	13.8	14.1	13.1	19.6	11.1	10.5	13.8

Explanations 1: The students could choose 3 answers. Theoretically there can be 300 choices for answers. Not all of the students used it, so the sum of answers in the particular countries is different.

Explanations 2: P – Polytechnic, E – Economic, S – Social, H - Humanistic.

Source: Team research, own calculation

The majority of the students chose one of the five possibilities that indicate an active and enterprising attitude in life (235.3% of the choices of the total of 300, which is equal to 78.4% of the 100,0%). Such a high percentage of enterprising young people augur well for economic development. The choice of statements from 6 to 9 indicates a lack of activity and entrepreneurship amongst the students (64.8% of the choices out of the total of 300, which amounts to 21.6%). The most frequently selected option was “I often start something, but then feel discouraged and give up” (28.7% of the choices). This would suggest that there is a considerable group of students who get easily discouraged from effort and activity. Interestingly, similar responses were obtained by the Author also in the previous research (18.2%, when there was only one response option) (Swadźba, Cekiera 2016, p. 107). The young respondents are, thus, very polarised in their attitudes. On the one hand, there is a group of enterprising and success-oriented young people while, on the other, there is also a group of passive individuals.

What were the responses of students from the V4 countries? The greatest similarity to Poles in terms of opinions was exhibited by the Hungarian students (S. 5 – 69.9%, S. 2 – 60.2%), and slight similarity by the Czech students (S. 5. – 63.5%, S.2. – 52.6%) (Horakova, Jaluvkova 2018, p. 52). Compared to the students from the other countries, the Polish students appear to be the most active and enterprising. Such conclusions could also be reached during the analysis of the research conducted in the worker communities of Silesia. The educated young generation in worker communities have an optimistic opinion of their potential to succeed, seeing their own activity and entrepreneurship as an opportunity for professional development (Swadźba, Cekiera 2016).

Do the students' sex and the faculty studied have any influence on their attitudes towards activity and entrepreneurship? In principle, male and female students do not differ in terms of their active attitudes. There is no such statistical relationship except for one statement, namely “I am not afraid of risk if I have a goal to reach” (at the level of $p = 0.009$, the chi-squared test – significant, Cramer's $V = 0.131$). This statement was supported by 35.6% of the male students and only 23.6% of the female students. The male students are, thus, more ready to take risks than their female counterparts. Such a situation is not surprising, taking into account that it is the young men who have always been more inclined to risky behaviours.

While analysing field of study there are no major differences in students' answers. In general, correlation of attitudes towards activity and entrepreneurship doesn't depend on field of study, statistical analysis doesn't show any relevance. However, we can see few differences while analysing

percentage answers. S.3. „I am not afraid of new challenges in life” (P - 31,0%, S - 25,0%). Perhaps such choices result from dominance of men in this fields. Students, who are studying social sciences, believe more in their strengths than others. They chose: S.2. „I can achieve whatever I want in life, if I work on it ” (S - 73,1%, P – 61,6%) and S. 5. “I believe that my future depends on me” (S - 75,0%, P – 62,6%). Students, who are studying economics are more pragmatic in their choices, because they chose: S.1. „When I plan something, I usually manage to materialize” (E - 46,7%, S – 40,7%). It can be concluded that field of study affects the specificity of activity and entrepreneurship.

Is running one’s own business attractive?

The propensity for business activity does not always translate into running one's own business. Besides a favourable external environment, it is necessary to have a business idea, knowledge about the market and the existing loopholes, one’s own resources, determination and courage. Sociological research often shows how professional aspirations differ from the realities on the labour market (Linan, Fernandez-Serrano 2014, Elenurm 2008, Boguszewski 2013). Therefore, in an attempt to find out whether self-employment and business activity were only a dream or a concrete plan, a question was asked about life plans that take self-employment into consideration. Below, there are the possibility of setting up or running your own business:

**Table 2. Do you take into account the possibility of setting up or running your own business?
Select one option: (%) N=400**

Answers:	Gender		Field of study				Total
	Male	Female	P	E	S	H	
I already own (co-own) a private company	2.2	0.9	2.0	2.8	0.9	0.0	1.5
I want to soon start my own company	5.6	2.7	3.0	0.0	6.5	7.0	4.0
I'm thinking of starting my own business in the future	47.2	40.5	47.5	50.5	36.1	39.5	43.5
I have thought about it, but have not decided	20.0	20.5	21.2	19.6	18.5	22.1	20.3
I do not take this into account in my plans for life	9.4	11.8	3.0	4.7	20.4	15.1	10.8
I had my own company and do not intend to assume the next	1.7	3.6	5.1	2.8	1.9	1.2	2.8
Hard to say	13.9	20.0	18.2	19.6	15.7	15.1	17.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Explanations 2: P – Polytechnic, E – Economic, S – Social, H - Humanistic.

Source: Team research, own calculation

The research results indicate that nearly half of the students (49.0%) are considering starting their own business (point 2 + 3). This is a high percentage that demonstrates young people’s activity and entrepreneurship. Compared to the previous research conducted on adult respondents from a workers’ district in Silesia, this percentage is twice as high (28.6%) (Swadźba, Cekiera 2016, p. 101, Swadźba 2016, p.72). Are the plans of the Polish students identical to those of their colleagues from the remaining V4 countries? A comparison of the responses by the Polish students and the responses given by their counterparts from the other countries demonstrates that the former are the pioneers of entrepreneurship (Dunay, Illes, Vinogradov 2018, p. 126). The Polish students are more willing to invest in their own future by starting their own business than to rely on a career in private or state-owned enterprises and institutions. This might also be the effect of the moderately positive assessment of the possibilities for economic activities. Coming back to the analysis of the activity and entrepreneurship of the Polish students, a question can be asked whether there are any relationships and correlations in the plans for starting their own businesses. The correlation of this question with the faculties studied demonstrates statistical significance (at the level of $p = 0.003$, the chi-squared test – significant, Cramer's V 0.179). Following the percentage distribution of the responses selected, it can be concluded that the students of economic and polytechnic faculties are more likely to choose S.3 than their counterparts from social and humanistic faculties. Such a relationship probably results from the nature of the studies chosen. The students of polytechnic and economic faculties are more likely to

possess qualifications that can be used in their own businesses (e.g. construction, logistics and architecture engineers). On the other hand, the students of social and humanistic faculties are more often equipped with qualifications that allow them to take up employment in the public sector in offices and other state institutions (e.g. teachers).

Conclusion

The activity and entrepreneurship of the particular individuals translates into the activity and entrepreneurship of entire groups, regions, and then nations. A pivotal role in this phenomenon is played by the young generation who are starting their professional life (Elenurm 2008). A sociological analysis of the empirical material from the research made it possible to identify the following types of students:

Active realists. These are mostly students of economics and, sometimes, of polytechnic faculties. They know how the market functions and are able to realistically assess their propensity for business activity. They have plan to set up their own company. This is the most promising group that will be the pioneers of future changes.

Moderate realists. These are mostly students of social and humanistic faculties. They do not intend to start their own business. This is partly due to the fact that their professional activity is oriented towards public institutions or companies as they possess relevant qualifications. This is a group of students who will surely find their bearings on the labour market as good employees, yet without demonstrating any leadership potential.

Active dreamers. These are mostly students of humanistic and social faculties. They demonstrate active and enterprising attitude to life and think highly of their propensity to start their own business. However, their dreams are not backed by concrete plans or actions in the future, because they do not declare the will to start their own business.

Passive realists. Students of all faculties, with a smaller number of those from economics. They don't show any activity or entrepreneurship. They often declare that they give up on their goals if something goes wrong. In difficult situations, they even expect to receive state aid. They do not intend to start their own business. This is a group of students who will, in all likelihood, remain passive employees directed by others.

The economic development of societies is conditioned not only by legal, political, technological and financial aspects, but also by the actions, activities and entrepreneurship of individuals. The research demonstrated that a great potential lies in the young Polish generation. They have been socialised in a free market environment and see own business as one of the possible career paths. As shown by the analysis, they not merely want it but have concrete plans that will be put into action.

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COMPETENCES OF POLISH CONSUMERS AS STAKEHOLDERS OF A COMPANY

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Abstract: Consumers are listed among the key groups of the company's stakeholders. Stakeholders can influence the functioning of the enterprise in the following aspects: economic, political, legal and voting. The main attribute of consumers is economic power. They also possess political and legal power, but those are limited to a certain degree, depending on the level of awareness of consumer rights, activities and consumer confidence in the effectiveness of enforcing those rights.

The objective of the article is to identify the legal and political competences of Polish consumers which determine the strength of their potential as stakeholders of the company.

Achieving this objective was based on the results of self-conducted survey, in confrontation with the results of research conducted by other research centres. The results have shown that Polish consumers are characterized by a relatively low awareness of their consumer rights, inertia and a lack of faith in the effectiveness of influence on corporate decisions.

Keywords: company's stakeholders, consumer competences, consumer rights.

Introduction

According to Freeman (2010, p. 32), a stakeholder is any person or group that can interact with, or be the subject of, the organization's influence, aimed at achieving its goals. A common view of the company states that employees, customers (consumers), shareholders, investors and suppliers are key groups of the company's stakeholders (Ferrell, 2004). Stakeholders can influence decisions and actions of the company because they have potential strengths and opportunities. In principle, four types of stakeholders' impact power can be distinguished: voting, economic, political and legal power (Mitchell et al., 1997; Freeman et al., 2007, pp. 8-9; Lawrence, Weber, 2008, p. 12). The main attribute of consumers is economic power. They also possess political and legal power, but those are limited to a certain degree, depending on the level of awareness of consumer rights, activity and consumer's confidence in the effectiveness of enforcing those rights.

For this reason, the main objective of this paper is to identify legal and political competences of Polish consumers, which determine their power and potential as company's stakeholders. To achieve this goal, self-conducted surveys were carried out, which were later compared with the results of research conducted by other research centers. The obtained results show that Polish consumers are characterized by a relatively low awareness of their consumer rights, inertia and a lack of faith in the effectiveness of influence on corporate decisions.

Background

Each of the stakeholder groups has a different power and opportunity to influence the company (Gorczyńska, 2009).

The voting power refers to the right to vote in making important decisions related to the company's operations. Such rights are available, depending on the organizational and legal form of the company, to management board members, employee councils, shareholders or stockholders in listed companies (Spitzeck and Hansen, 2010). The economic power consists in the possibility of direct influence on the economic and financial results of the enterprise (de Bussy, Suprawan, 2012; Berman et al., 1999). It applies to such groups as: investors and shareholders, clients, business partners and employees. Political power refers to the rights of stakeholders in terms of formulating the acts and regulations, that the company must comply with. Such power also belongs to the legislative authorities and the so-called regulators above all, but also to other groups (e.g. non-governmental organizations) through lobbying (Wang and Qian, 2011).

Consumers mostly have the economic power that lies in their purchasing decisions. By purchasing products offered by the company and accepting their prices, consumers allow the company to achieve sales revenue and generate profit, enabling it to exist and develop further (Kipperberger, 1999; Boyd et

al., 2010). The potential of consumers' impact on the enterprise is also included in their legal power by enforcing their consumer rights: to return or exchange goods, request warranty repairs, expect compliance with the contract, negotiate, claim warranty etc. Consumers, acting within consumer organizations and associations, also have the possibility to influence the establishment of legal regulations through lobbying, using their political power in such a way (Klein and Dawar, 2004; Caputa, 2015). Thus, consumers have three types of power at their disposal: economic, legal and political power. However, they can effectively influence decisions and conduct of enterprises only when they are aware of their rights and demonstrate their activity in using their potential.

The research carried out so far shows that the level of consumer competence of Poles is rather low and it is improving very slowly. It concerns mainly the awareness of their rights as clients, as well as skills and activities as stakeholders of the company.

Research conducted in 2009 by ACR Rynek i Opinia, coordinated by UOKiK (eng. Office of Competition and Consumer Protection), on a representative sample of 1000 adult Poles, showed that: the vast majority of respondents (75%) are convinced that Poles do not know about consumer protection laws, over 1/3 of the respondents do not know any institution or organization responsible for consumer protection, a typical consumer is convinced of his weaker position towards producers, traders and service providers, as many as 76% of the respondents believe that the interests of consumers should be represented by relevant institutions or organizations (*Znajomość...*, 2009).

A quantitative survey, conducted in 2011 on a representative group of 1002 adult Poles living in cities of at least 100,000 inhabitants, shows that only 17% of respondents are interested in and seeking information on consumer rights, 79% believe that Poles do not know their rights as consumers, and only 21% of the respondents said that the level of protection of consumer rights in Poland is the same as in Western Europe (Dąbrowska, 2013).

In order to identify the competences of Polish consumers as stakeholders of the company, questionnaire surveys were carried out among students of the second degree of full-time and part-time studies at the Faculty of Organization and Management of the Silesian University of Technology. An online questionnaire was used, sent via electronic mail from the faculty. The research was carried out in January and February 2018. As a result, 257 completed questionnaires were obtained. The respondents were the students aged 19 to 27 years old, including 59% women and 41% men. The study was of a pilot character.

Results

The first question concerned the sources from which the surveyed students obtain information about their consumer rights. The following items were selected: official legal texts, the Internet, professional press, radio and television, parents, friends or acquaintances. The answers obtained are shown in Figure 1.

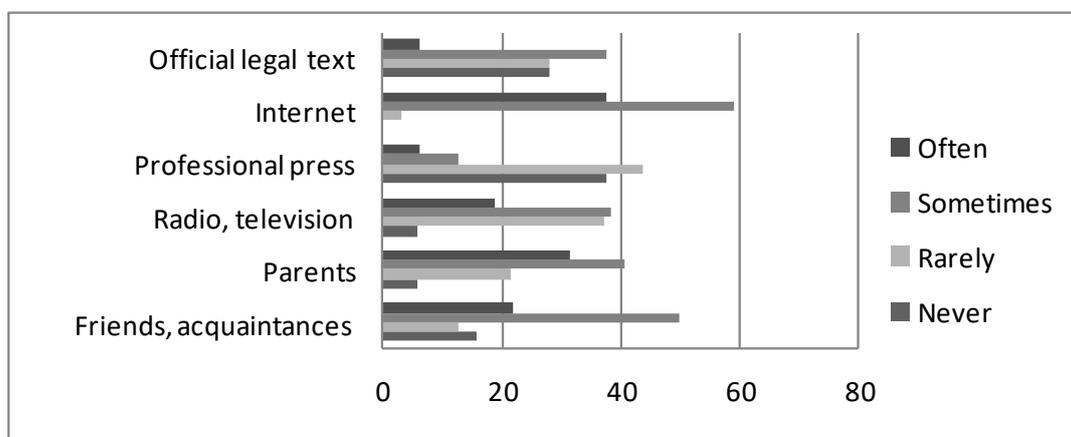


Figure 1. Sources of knowledge about consumer rights

Source: survey results

The most popular source turned out to be the Internet, which the respondents use often (37.5%) or sometimes (59.3%). Parents were on the second place (often - 31.6%, sometimes - 40.8%), on the third - friends and acquaintances (often - 21.8%), sometimes - 50.1%). Radio or television as a source of knowledge were chosen sometimes (38.3%) or rarely (37.4%). The youngest are least likely to reach for the professional press (rarely - 49.7%), never - 37.5%) and official legal texts (rarely - 28.1%, never - 28.2%).

In the second question, the respondents were asked to assess their own knowledge about their consumer rights (Figure 2).

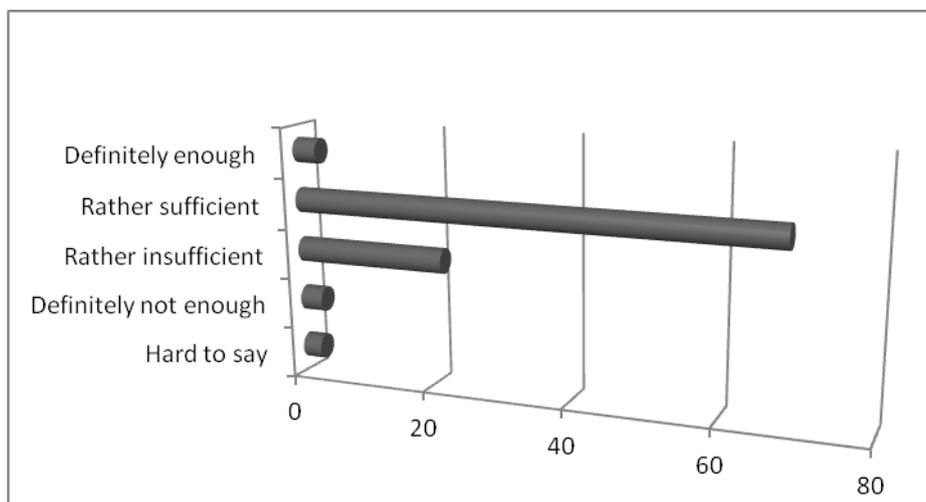


Figure 2. Assessment of the state of own knowledge about consumer rights

Source: survey results

As can be seen in Figure 2, the vast majority of respondents rated their knowledge about consumer rights as definitely or fairly sufficient (72.1%).

However, over a half of the respondents (56.3%) declared their willingness to supplement their knowledge in this area (Figure 3). This, in a greater extent, applies to women, 63.1% of whom made such a declaration, than to men, 46.1% of whom declared such a wish.

Another question concerned the knowledge of institutions or organizations responsible for the protection of consumer rights. It turns out that this knowledge is rather low. Over 65% of the respondents could not name one such institution, but those were mainly women (73.7%). Less than a half of the surveyed men (46.1%) confirmed their knowledge of consumer protection organizations. The Commissioner of Consumer Rights was mentioned above all (54.5%) and the Office of Competition and Consumer Protection (36.3%).

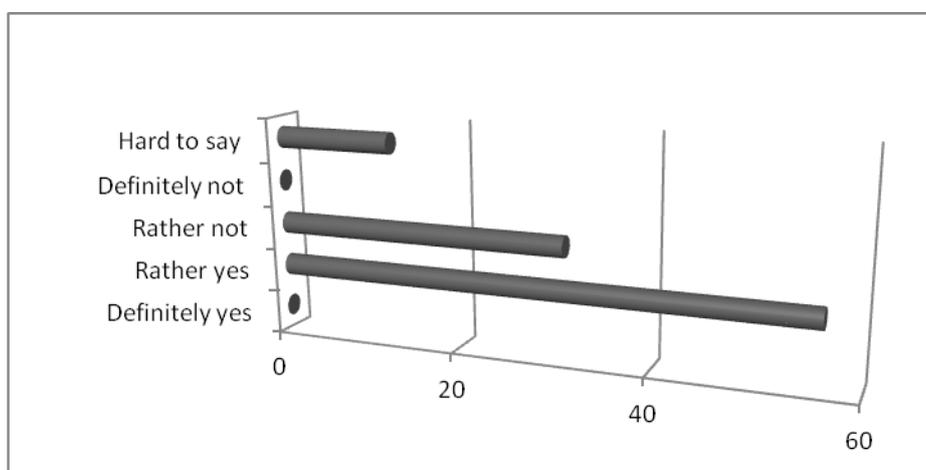


Figure 3. Willingness to supplement knowledge about consumer rights

Source: survey results

In the next question, the respondents' task was to respond to the statements regarding the possibilities of customers' impact on the company as its stakeholders (Table 1).

Table 1. Possibilities of customer impact on the company

Specification	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Through my purchase decisions, I have an influence on the financial results of enterprises	0	3.1%	6.3%	65.6%	25.0%
Consumers can effectively lobby for the creation of laws protecting their rights	0	6.2%	50.0%	40.6%	3.2%
Only consumer organizations can effectively lobby for the regulation of consumer rights	0	40.8%	43.6%	12.5%	3.1%
An individual consumer has very little chance of winning a lawsuit with a large company	6.2%	18.9%	18.7%	43.7%	12.5%
Consumers should leave the protection of their rights to the institutions appointed	0	40.6%	37.6%	21.8%	0

Source: survey results

The vast majority of respondents are aware that through their purchasing decisions they affect the company's financial results (90.6%). Almost 44% of respondents agree with the statement that consumers can effectively lobby for the regulation of consumer rights. However, half of them has no opinion on this matter. The surveyed students do not really believe in the effectiveness of such activities carried out by consumer organizations (about 42%). However, as many as 43.6% of the respondents have no opinion on this subject. This position is confirmed by the result regarding the statement that the consumers should leave the protection of their rights to the institutions set up for that purpose. Only 21.8% agree with this statement, almost 41% disagree and over 38% have no opinion. Such a result is not surprising, given the poor knowledge of institutions and organizations that protect consumer rights. The surveyed consumers are of the opinion that their strength and position as individual company stakeholders is rather weak. Over a half of them (56.2%) agree with the opinion that an individual consumer has very little chance of winning a court trial with a large company. A significant percentage (37.6%) has no opinion on this matter.

The respondents were also asked which actions would be the most effective in pursuing consumer rights in a conflict with an enterprise (Figure 4).

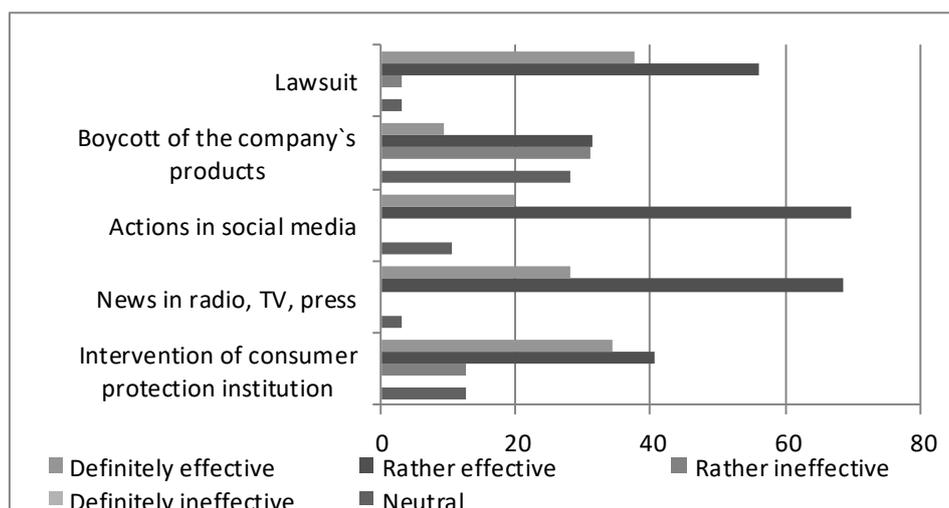


Figure 4. Evaluation of the effectiveness of the investigation of consumer rights

Source: survey results

The students considered the most effective actions to be: publicizing the problem in traditional media (96.6%), lawsuit (93.7%), action in social media (89.5%).

The structure of these answers may be a bit surprising, given the popularity of social media among the respondents. Almost everyone (97%) has a Facebook account, over 53% - Instagram, and over 10% Twitter, as well as other websites (i.e. Snapchat, Vkontakte). The following was indicated as less effective: intervention of consumer protection institutions. The boycott of the company's products was definitely the least effective, with as much as 28.1% of the respondents having no opinion on this matter. Such a result, on the one hand, may testify for a lack of faith in the purpose of activity of the buyers themselves, and, on the other hand, may result from the respondents' limited experience with regard to this type of action, which is not so often undertaken in Poland.

The last question was about examining the tendency of respondents to participate in various forms of protest against dishonest or unethical behavior of enterprises (Figure 5). Most of the respondents (65.5%) would be willing to sign an open letter to the government. Over a half (57%) would participate in an action organized in social media, and 40.6% - in campaigns organized by consumer protection institutions.

Only 31.1% of the respondents declared their willingness to boycott the company's products, and a small percentage (15.6%) expressed their willingness to participate in a street demonstration. As we can see, the most popular are rather passive forms of protest.

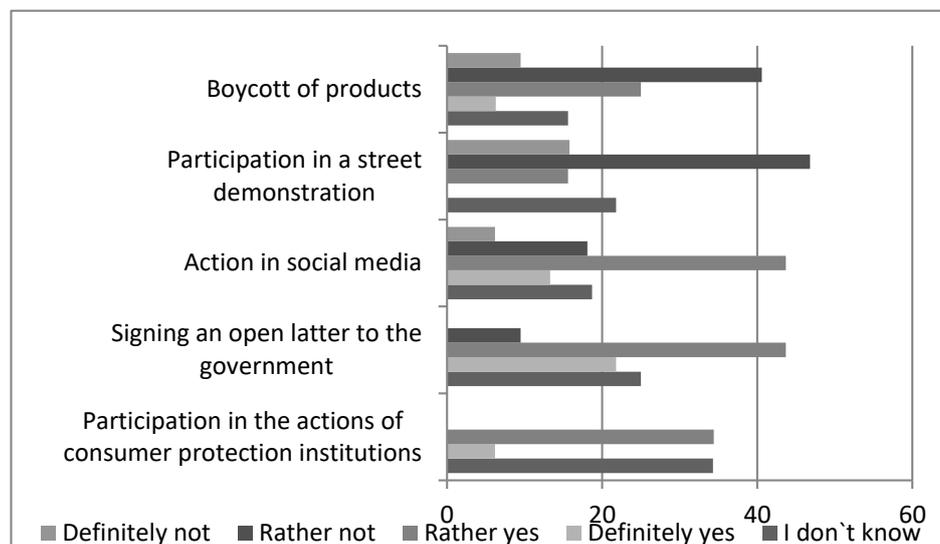


Figure 5. Willingness to participate in a specific form of protest

Source: survey results

Conclusion

Consumers, as one of the key stakeholder groups, have significant potential to influence the company using economic, legal and political powers. The use of this potential depends on the level of awareness of consumer rights, as well as tendency and determination to enforce them. Research conducted in 2009-2013, both by domestic centers and EU agencies, showed rather low awareness of consumer rights and a sense of weaker position of Polish buyers against the sellers of goods and services on the market.

The research conducted among young Polish consumers, presented in the article, showed a significant convergence with these results. Although the respondents rate their knowledge about consumer rights as sufficient, more than half of them express their willingness to supplement this knowledge. Over 65% of respondents do not know any institution responsible for the protection of consumer rights, they also do not believe in effectiveness of such organizations. Almost all respondents are aware of the fact that their purchasing decisions affect the financial results of companies, but over a half think that an individual consumer has very little chance of winning a dispute with a large company. A lack of confidence in one's own strength translates into low activity of consumers as stakeholders of the enterprise. Among the declared forms of protest against dishonest behavior of companies, passive options dominate, such as signing an open letter to the government or participation in social media campaigns. Only a small percentage of the respondents expresses their willingness to participate in street demonstrations or boycott the products.

To sum up, it can be said that although consumer awareness of Polish buyers, particularly the young ones, is systematically growing, they still do not use their potential to influence enterprises as their stakeholders. It seems that, in order to improve this situation, it is necessary to intensify educational activities carried out at all levels of education and through various organizations and institutions, to continue monitoring the state of knowledge, as well as identify the motives of consumers' inertia.

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THE ESSENCE AND FEATURES OF BENCHMARKING PARTNERSHIP OF CLUSTER ENTERPRISES

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Abstract: The literary review leads to the conclusion that the phenomenon of benchmarking partnership of cluster enterprises has not been the subject of in-depth scientific research so far. The purpose of the paper is to present the essence and features of benchmarking partnership of cluster enterprises against the background of the key attributes of a cluster that foster benchmarking. The thesis of the paper is the claim that intra-cluster benchmarking is a form of partnership cooperation justified for use by cluster companies, because of its features that promote mutually beneficial exchange of information concerning the results achieved and the best practices they use in different areas of their activity. The main research methods are as follows: the analysis of literary sources and deductive reasoning. Based on theoretical considerations and observations of business practices, the following research conclusions have been formulated: the essence of benchmarking partnership of cluster enterprises is a mutually beneficial exchange of information between enterprises participating in a cluster, concerning their performance and best practices in various fields of activity according to partnership rules that lead to the improvement of the performance of the parties involved in the benchmarking process.

Keywords: benchmarking partnership, best practices, cluster, intra-cluster benchmarking.

Introduction

The transformation of the market environment and structure has changed enterprises' approach to other participants. Traditional competition is becoming less important, while companies are more willing to establish new relations with other entities, often with the nature of a partnership. One of the examples of an effective form of implementation of cross-organisational partnership strategies and integration of enterprises through cooperation, is a cluster.

According to the classic definition introduced by M.E. Porter (1998), clusters are "geographic concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries, and associated institutions (e.g., universities, standards agencies, trade associations) in a particular field that compete but also cooperate". Clusters can be characterized as "relatively dense networks of enterprises and organizations, the value chains of which are connected but not necessarily through what we usually understand by economic transactions" (van Dijk, Sverissson 2003, p. 185). All economic actors who directly contribute to the dominant production process of a region are partners in this network (Cooke 2003, p. 3). Clusters are made up not only of physical flows of inputs and outputs, but also include the intense exchange of business information, know-how, and technological expertise, both in traded and un-traded forms (Sölvell 2008, p. 12). Thus, cluster participants may establish long-term partnership cooperation in fulfilment of common projects and cluster initiatives resulting in the improvement of market performance and competitiveness of involved partners.

Establishing benchmarking partnerships of enterprises within a cluster is a positive factor that improves competitive advantage of that type of cross-organisational networks, which in turn fosters innovation and economic competitiveness.

It must be emphasised that benchmarking partnership of cluster enterprises is an important and interesting field of scientific research, in particular in the context of the paradigms of relation and cooperation of enterprises in network organisations, currently proposed in the management sciences.

The attempt to determine the essence and features of benchmarking partnership is a response to the identified gaps in the knowledge concerning that concept of partnership. The thesis of the paper is the claim that benchmarking partnership is a form of partnership cooperation justified for the use by cluster companies, because of its features that promote mutually beneficial exchange of information concerning the results achieved and the best practices they use in different areas of their activity.

The main research methods are as follows: the analysis of literature sources and deductive reasoning.

Background

Benchmarking is a powerful tool for improvement in various fields of business activity. It refers to “gathering what others are doing, usually to evaluate whether you are operating efficiently or identify areas for improvement” (Sharma, Iqbal, Victoriano 2013, p. 352).

The review of the literature leads to a conclusion that the benchmarking partnership phenomenon has not been the subject of any previous in-depth scientific analyses. None of the researchers has performed theoretical analyses in terms of the possibility of benchmarking adjustment to the needs of cluster members in the aspect of development of the cross-organisational partnership relations paradigm. The knowledge in this scope is very little. The concept of intra-cluster benchmarking was first used and explained by the Author of this paper (Szydełko 2015, pp. 456, 458, 461–464).

For the purposes of this paper, the term "benchmarking partnerships" shall mean "mutual beneficial exchange of best business practice information which should lead to improved performance for all the organisations involved" (Bendell, Boulter, Goodstadt 1998, pp. 124–125).

B. Andersen (1995, p. 214) introduces relationship benchmarking as one of the type of external benchmarking, where previous cross-organisational relations are favourable for exchange of information between potential benchmarking partners.

As a result, the existing cooperation of enterprises in various areas within the cluster may limit or eliminate potential barriers in the process of active benchmarking due to the fact that:

- 1) benchmarking partners know each other, which reduces the time required to gain overall information concerning the partner,
- 2) each benchmarking partner recognises the added value of benchmarking, in form of gaining benefits from processes and operations improved by the other benchmark partner,
- 3) growing trust and involvement of all parties of the cross-organisational relations increases the possibility of improvement of relation competences,
- 4) cooperating parties of the relationship strive for tightening the cooperative relations in order to gain benefits resulting from the effect of synergy and limiting the number of conflict-triggering situations.

Results

The concept of benchmarking is so vast and flexible that this process might be adjusted to conditions of functioning of different types of social and economic structures. The possibilities of benchmarking implementation by cluster companies, as a process supporting continuous improvement of benchmarking partners, should be recognised and assessed by comparison of cluster properties and features of partnership relations with the general assumptions of classic benchmarking. An attempt of graphical representation of the method of benchmarking partnership implementation of enterprises within a cluster has been made on the basis of the following categories: cluster, partnership of enterprises, benchmarking, partnerships in cluster and benchmarking partnership of enterprises (Figure 1). It is a formative approach to the conceptualisation of this form of partnership.

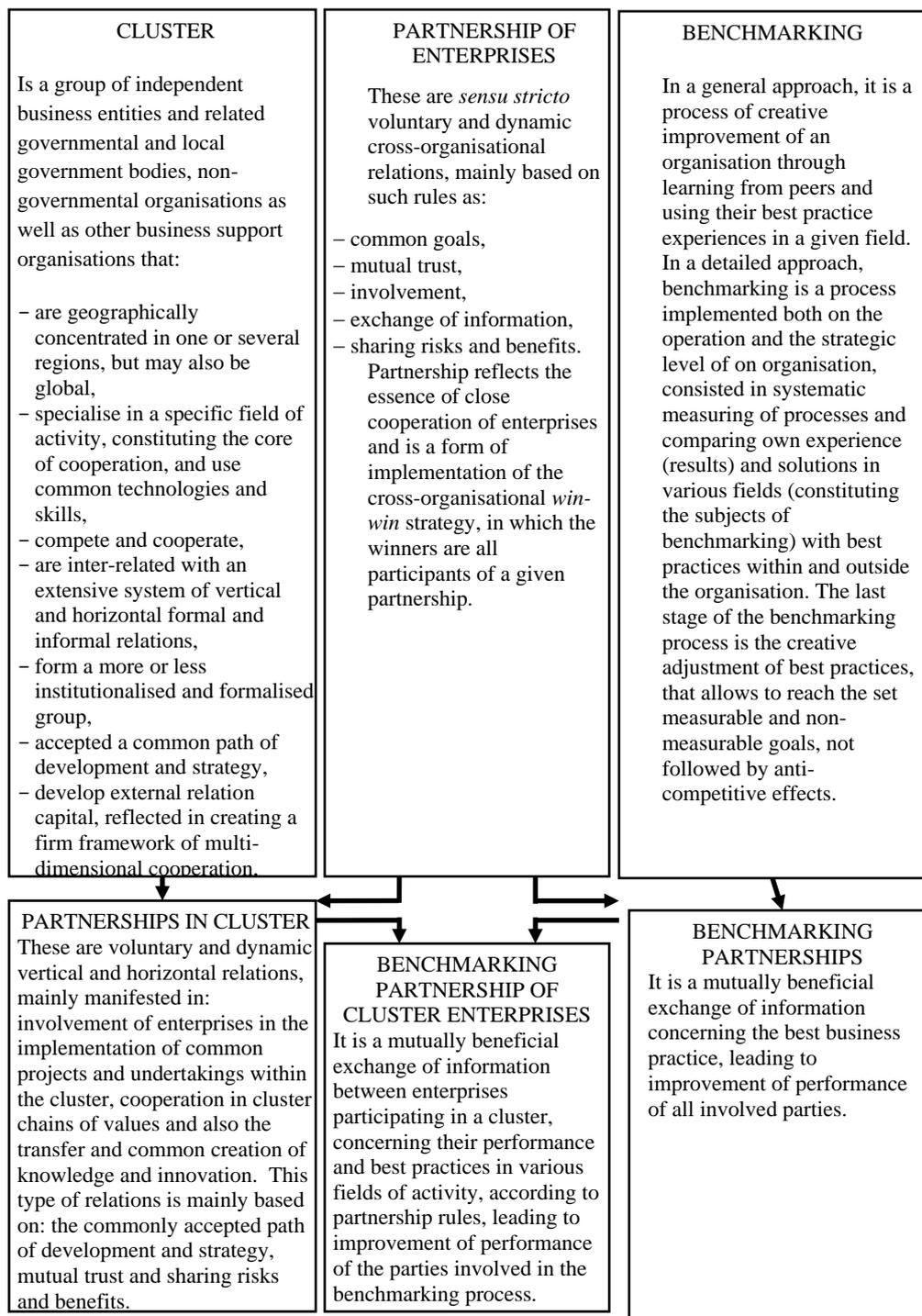


Figure 1. The essence of benchmarking partnership of cluster enterprises

Source: Author's own work

The comparison of the scope of the five categories listed above gives rise to a conclusion that the essence of benchmarking partnership of enterprises within a cluster is a mutually beneficial exchange of information between enterprises participating in a cluster, concerning their performance and best practices in various fields of activity, according to partnership rules, that leads to improvement of performance of the parties involved in the benchmarking process (micro level) and improvement of the cluster competitive advantage (meso level).

The implementation of the benchmarking partnership is justified by cluster enterprises due to the properties of the cluster and the occurrence of key factors determining the success of the benchmarking partnership, as well as the character of the benchmarking process.

The presented thesis allows to indicate the key attributes of a cluster that foster benchmarking partnership. These include:

- 1) cross-organisational closeness of cluster members in a geographical, social, organisational, institutional and cognitive aspect,
- 2) interactive connections in the formal and informal relations,
- 3) common implementation of projects and undertakings reaching beyond the logic of normal market rules,
- 4) openness to organisational innovations and searching for new improvements,
- 5) mutual trust of the partners, sharing risks and benefits,
- 6) previous partnership relations focused on sharing assets (e.g. knowledge transfer), integration of common activities and achieving the effect of synergy,
- 7) critical mass, determined by the number and the structure of entities, due to which the cluster attracts new assets and generates the innovative potential.

While analysing the issue of benchmarking partnership of enterprises in a cluster, it is also worth trying to identify its features, following the principle of cohesion with the properties of partnership of enterprises, key determinants of partnership relations in a cluster and the benchmarking scope.

It has been assumed that benchmarking partnership of enterprises forming a cluster is characterised by certain essential features and inseparable elements, which include:

- 1) focus of benchmarking partners on sharing information assets,
- 2) focus of benchmarking partners on reciprocity encompassing:
 - mutual beneficial exchange of information for benchmarking purposes, with or without the participation of a moderator,
 - mutual trust and respect,
 - mutual obligations resulting from arrangements and agreed rules,
- 3) the process of learning from peers,
- 4) the process of communication, that takes place on various levels and using various channels, involving particular effects,
- 5) equal position of the benchmarking partners, without signs of domination of any of the parties,
- 6) implementation of the cross-organisational *win-win* strategy,
- 7) voluntary participation of cluster members in the intra-cluster benchmarking process, according to the accepted partnership rules,
- 8) focus of benchmarking partners on achieving particular goals, both individually and within the group,
- 9) various degree of sustainability, intensity, involvement and formalisation of benchmarking cooperation within the cluster,
- 10) dynamism and maturity of cross-organisational relations in benchmarking undertakings within the cluster,
- 11) commonly agreed and shared rules of conduct of benchmarking partners, constituting an ethical code,
- 12) respecting the laws,
- 13) the risk in the process of benchmarking process management in a cluster, among others related with:
 - occurrence of organisational and legal issues,
 - choosing an improper benchmark partner,
 - opportunism of either of the parties,
 - exaggerated expectations and over-estimating benefits from the implementation of the benchmarking partnership,
 - occurrence of dysfunctional conflicts,
 - violation of laws and ethical rules,
 - breaching the terms and conditions of a contract,
 - lack of benchmarking partners' awareness of the time required to achieve the planned measurable benefits.
- 14) co-financing of the benchmarking undertaking (e.g. covering the costs of design and maintenance of a benchmarking information exchange platform, the costs of benchmarking training and the costs of meetings of working groups),
- 15) strategic aspect of the benchmarking partnership in a cluster.

It must be assumed that the inseparable elements characterising benchmarking partnership of enterprises in a cluster, are the participants of the cross-organisational relations. The researchers dealing with the benchmarking process use the following terms:

- 1) "benchmarking partners" (Elnathan, Kim 1995, pp. 347, 349, 352; Bendell, Boulter, Gatford 1997, pp. 150–151; Węgrzyn 2000, pp. 170–171; Ziębicki 2007, p. 81; Szydełko 2015, pp. 456, 462),
- 2) "benchmarking partner relationship" (Bendell, Boulter, Goodstadt 1998, p. 125),
- 3) "benchmark-partner" (Kowalak 2009, p. 33; Szydełko 2014, pp. 526–527; Szydełko 2015, p. 461),
- 4) "partners in benchmarking cooperation" (Ziębicki 2007, p. 84).

It should be noted that the term "benchmarking partner" is often identified with a model enterprise that is the subject of passive benchmarking. Passive benchmarking lacks direct contact with the model enterprise distinguished by the best practice in a given field, and also the methods of data collection can also be classified as passive. The claim of R. Kowalak (2009, p. 33) is correct, saying that only establishing the contact with a given enterprise (benchmark partner) to exchange information, can be referred to as active data collection.

In order to fill the knowledge gap, the following terms referring to the parties of the cluster benchmarking partnership have been proposed:

- 1) active benchmark partner – that is a benchmarking partner obtaining information concerning the performance and best practices in a given field from another member of the cluster (passive benchmark partner) and creatively adjusting such information to its needs,
- 2) passive benchmark partner – that is a benchmarking partner providing information concerning the performance and best practices in a given field of activity to another cluster member (active benchmark partner),
- 3) benchmarking moderator (internal or external), providing support at different stages of the intra-cluster benchmarking process.

Discussion

The purpose of conceptual considerations was to indicate the essence and the features of benchmarking partnership of cluster enterprises. It should be noted that this concept is undoubtedly a response to the needs of today's enterprises forming clusters, that search for solutions allowing to increase efficiency and effectiveness of performed processes, to improve the competitive advantage of their individual companies and the whole cluster. Thus the idea of intra-cluster benchmarking partnership is a new way of thinking about the creation of competitiveness of enterprises within a cluster. It is consistent with the previous systems of cooperation of cluster members, aiming at: stimulation of partnership in different fields of activity, developing the external relation capital reflected in building a firm framework of multi-dimensional cooperation, and also using the potential of cluster-like structures (meso level) in gaining benefits resulting from the effect of synergy. It must be emphasised that the relations between benchmarking partners within a cluster should fulfil the real idea of benchmarking and partnership, being manifested in enterprises' involvement in the process of creative improvement through learning from cluster peers and using their experience, that is verified practices developed in a given field of activity. Mutual beneficial exchange of benchmarking information between partners within the cluster should take place in conformity with the law and the ethical rules.

Conclusion

The described analysis has confirmed the correctness of the thesis. It has been demonstrated on the theoretical background that the fulfilment of the benchmarking partnership concept is justified by companies operating in the cluster environment, due to the distinctive features and key properties of the cluster, fostering partnerships and the process of learning from peers through exchange of experience and information concerning verified and model practices.

The effect of the research efforts are the implications for the management theory in the scope of the cluster enterprises. This paper presents a valid, important and interesting scientific issue concerning the benchmarking partnership of cluster enterprises. The author believes that the results of this theoretical research may become a new point of view in the continuing discussion of the management theoreticians specialised in inter-organisational relations management, benchmarking, clusters and knowledge management.

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THE RESULTS OF LEAN PRODUCTIVITY DEVELOPMENT COMBINED WITH KARAKURI KAIZEN METHOD

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Abstract: A company's production is based on technology and human resources. The lean manufacturing system eliminates waste from the processes. The main aim of this study is to show how a mixed production work process can be improved by using the Karakuri Kaizen method. The main question is how efficient the lean method can be when combined with Karakuri Kaizen. To show the results, we analysed the work flow and the motion and after the statistical analysis we designed the new production system to reduce the waste and increase the labour productivity. The result of the improvement ratio of VA (Value Added) and NVA (Non Value Added) 5/60 was reduced drastically to 5/10. The additional benefit of the used method is the increased volume of high quality product and the reduced cost and higher benefit. The lean and Kaizen methods are universal but the company culture has a very deep influence on implementing them into the everyday practice of the company.

Keywords: change management, focused improvement, Karakuri Kaizen, lean management, productivity development, quality improvement, standardized work

Introduction

Our research focuses on the intensive productivity improvement method implementation possibilities and demonstrates in practice how and how much efficiency can be achieved through the development of operator work for manual processing and machine-related operations in production plant of molded products using the lean philosophy and Karakuri Kaizen.

There is always a better way implementing lean because there is no identical situation in business environment even in the same factory. The company lifecycle stage has different efficiency (Illés,Hurta,Dunay 2015,p.57) and in the practice always requires different tools or order for improve the entity performance, like the lean. This is because of major/minor differences that must be taken in consideration the variability of people in knowledge, ability, thinking, culture, practical experience or technical differences between the similar machines, or in the environment. The total output of a development and changes is depending on the number of the team members involved, multiplied by their increased ability and raised motivation (Kovács 2017,p.14). In our research we used classical lean tools as 5S, standardized work method, TPM (Total Productive Maintenance) - Autonomous Maintenance (AM). The toolkit was extended with Karakuri Kaizen because of several operator movement and transportation and searching form materials. The research shows that wasted time with human motion and transportation can be eliminated or reduced or parallelized by applying 5S, SW, TPM, and Karakuri Kaizen which contributes directly to productivity improvement and leadtime reduction. The indirect effect is the increasing quality by reducing the WIP. The disruption of the process produce not only quantitative and qualitative variability also causes financial variability and high cost. In the case of human activities, the creation and optimization of standard work (Standard Work) is essential, which means a better more stable process performance at man and machines operation. But not the human resource but the organizational culture also influences the person behavior (Dunay,Nagy,Illés,2017,p.176)) influenced the standard working processes. The new standard work is the basis for the effective Kaizen (Masaaki, 2002, p.53) developments defined by Toyota. Only stable processes can be improved. In addition, processes need to be standardized to optimize costs (minimizing) because unproductive work reduces profits by using resources. Performing in the same way the job the output will be similar.

The toolkit was extended with Karakuri Kaizen. The research shows that wasted time with human motion and transportation can be eliminated or reduced or parallelized by applying 5S, SW, TPM, and Karakuri Kaizen which contributes directly to productivity improvement and leadtime reduction. The indirect effect is the increasing quality. The transportation, overprocessing and waiting waste of the operator are transformed to productive work in balanced work conditions defined by standard work sheets. The disruption of the process produce not only quantitative and qualitative variability also causes financial variability and high cost. The methods influence the company's strategy and competitiveness (Mester,Tóth, Túróczi 2018, p.41)

Based on the study we assume, that the different productivity improvement methods can be used parallel and they can strength each other's effect, and the Karakuri Kaizen can be used as a lean method.

Background, Methodology of the research

Our research focus on the intensive productivity improvement method implementation possibilities and demonstrates in practice how and how much efficiency can be achieved through the development of operator work for manual processing and machine-related operations in production plant of molded products used Karakuri Kaizen.

Deeper explanation is how the standards are respected and followed. One of the key success at Toyota production is that keeps standard work consistently (Liker 2003, p28). The Value added activity is the customers are paying for and all others are the Non Value Added. TPS is the overall systematic approach as production system where are clearly defined the 7 main wastes: Overproduction, Inventory, Waiting, Motion- movement, Transport, Over-Processing, Defects.

There are always similar characteristics to any processing production. The lean approach core message is to understand the processes and develop in the following way as is declared in the 5 lean principles.

1. Specify value from the standpoint of the end customer by product family.
2. Identify all the steps in the value stream for each product family, eliminating whenever possible those steps that do not create value.
3. Make the value-creating steps occur in tight sequence so the product will flow, smoothly toward the customer.
4. As flow is introduced, let customers pull value from the next upstream activity.
5. As value is specified, value streams are identified, wasted steps are removed, and flow and pull are introduced, begin the process again and continue it until a state of perfection is reached in which perfect value is created with no waste.

A problem is solved 100% when the problem never reoccurs. The Gemba Kaizen deals with problems involving people. The 95% of the problems can be solved on the workplace. The 5% of the causes are indirect connected and can be administrative processes errors, lack of information, missing data, the quality of the information is poor, missing knowledge and training, the upstream processes failure and all the PQCDMMMT: Productivity, Quality, Delivery, Safety, Morale, Management, Milieu, Technology. Also the problems can be caused by all elements of production 4M: Man, Material, Machine, and Method.

To run or to develop any business process is necessary to set up the efficient workplace and work environment where the proper work can be done. By definition the 5S means to set up and sustain and develop a high quality workplace in 5 steps. Implementing the first three of the five steps as 1S, 2S, and 3S activity means to define all the necessary elements of production or service in a clear environment. The 4S means standardize and the 5S is the rule of doing 1S to 4S consequently. Using 5S method is easier to identify the use of non-standard tools and solutions. These are telling much more about the problems and management than a simple status quo of the production. These cause always variability and problems (Tangl, Vajna 2016, p.164).

The work means that the process is performed or by man or machine. The flow quality of the process means that how much is the ratio of the value-added and how much non-value-added processes during the lead time that transforms the raw material to finish good. Observing the details in practice it is possible breaking down the processes in smaller steps, and in this way it is possible to identify the basic work process elements to microelements. The wastes generate slow cash flow so there was no product or service sold and there is only by raising variable costs, price and endanger the competitiveness. The standard work means identifying and eliminating the waste from human and machine operation in any production type. Leader's responsibility is the right processes, and the right results the workers responsibility.

TPM is a maintenance philosophy designed to integrate equipment maintenance into the manufacturing process eliminating unexpected breakdowns. The TPM goal is to maximize the output (Mwanza,Mbohwa 2015,p.462). Elements of TPM strategy: TPM Training, Autonomous maintenance, Kobetsu Kaizen, Planned Maintenance, Early equipment maintenance, Safety and environment,

Quality maintenance, TPM in Office. In the terms of TPM reducing lean waste is to reduce the 16 industrial losses of factory efficiency by “any mean”. Such activities are covered by the TPM in Autonomous Maintenance pillar.

In the Karakuri Kaizen focused improvement to manage the team roadmap we have used the PDCA method. Karakuri Kaizen method is one of a low cost automatization method. Dating back about 1200 years in Japan. There are mentioned in the Konjaku Tale, which was written during the Heian period (794-1185). The first Karakuri mechanism was used in Karakuri puppets. These dolls were operated by motion mechanism systems and gravity and they used mainly springs, arcs, gear wheels, coil springs, levers, cams, threads, strings, cogwheels and it’s combinations, magnets. First there was used to entertain people, but by time these turn into solving practical problems of the daily life and industry. In Japan in 17th century came alive again as the influence of western machinery culture such clockmakers. Nowadays Karakuri is widely used in industry to eliminate reduce human activity and power and focus on 3Mu, too. The Karakuri mechanism are made of low cost material and easy to assemble, use of FIFO lanes (Roser, Nakano,2015, p. 285), instead of supermarkets, use of lifting mechanism, transportations, object rotation or positioning, combining with Poka-Yoke (fool proof) and simple machines systems (Murata et.al,2013,p.22) The energy is given by another object kinetic energy or gravity and rarely is used electricity. The goal is to reduce or ease the human work and workload contributing to a balanced standard work procedure by eliminating waste. Karakuri solve problems if an object is too high, bulky, hot, too low positioned, reduce distances, flow by FIFO. The activation of Karakuri tool can be by objects “collision”, reaching weight, step on a lever, or started by a very simple way.

For the study we used the theoretical background of the lean and kaizen methods. Before the action all members of the team were trained.. Based on the theoretical knowledge we collected data by using OPPDCA (Observation, Planning, PreCheck, Do, Check, Act,) for explore the actual situation and to find the improvement points. We used statistical methods for the data analyzing: standard deviation, histograms, scutter diagrams and pareto analysis.

Results

Focused on the intensive improvement method we did the improvement in three days. As project backbone was used PDCA for better preparation. We studied on the shop floor the actual physical number and arrangement of the machines, material storage, the basic flows, energy supplies. This gave a picture for the data collection possibility and was determined the number teams, roles and the way of data collection. The subject of the development was three molding machines (1,2,3) operated by one–one operator (Figure 1). The downstream process was the collection, and rearrangement of WIP in special heat resistant tray and was transported for the oven process number 3. In a shift there were 8 workers.

First the data was collected for 25 min/operator and this was repeated by 2 times with 10 minute break. This was the understanding and involvement phase.

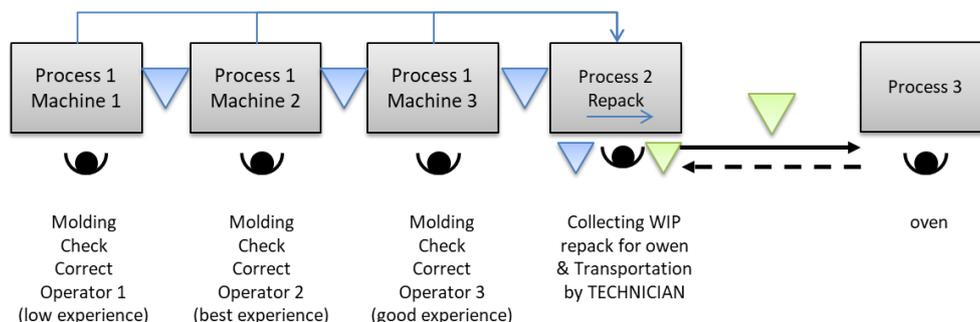


Figure 1: Layout before improvement

Source: own work

The second type of data collection took 2:30 hours with continuous observation 2 times. The goal of the data collection is to find out the biggest losses and causes that gives room for improvement. There was also data collected from machine database about performing the cycles and was identified

the micro stops of 3 seconds generated by the old hardware. The forced machine stops were caused by operators, because they could not keep the takt of the machine. It is true that the necessity for optical inspection and correction root cause was the press machine quality. All operators' activities were recorded on video later analysis and time measurement. After data collection (day 2) in the analyzing phase in case of all production activities were considered what to eliminate and reduce waste by lean approach and tools. The framework for generating practical Kaizen ideas, was used the 4 Kaizen principles ECRS (Eliminate, Combine Rarrange Simplify). In addition the Karakuri solutions possibility was added and combined with the classical lean tools of 5S, TPM, SW, in case of all Value Added (VA) and Non Value Added (NVA) activities. The goal was to optimize the standard work procedure, reduce WIP to SWIP (Table 1).

Table 1. The Karakuri Kaizen development

Identify→	Solution method →		Result SW
VA	ECRS	Karakuri	Standardized Work(VA, BNVA) only
3Mu (NVA)	5S-TPM		
PDCA	SW		

Source: own work

The development by intensive improvement method shows that implementation in practice is effective and possible on low cost automatization solutions, from the problem identification of 3Mu to solutions by (ECRS) x (5S, TPM, SW) x (Karakuri Kaizen). The KAIZEN solutions were introduced step-by step continuously on the 2nd day and measured the performances at each change and each operator. The KPI was the number of good products and the scrap. The layout was changed the process number 2 (repack) was eliminated 100%. The technician time freed up and 100% and he could perform technical issues problem solving instead of repack the trays (Figure 2).

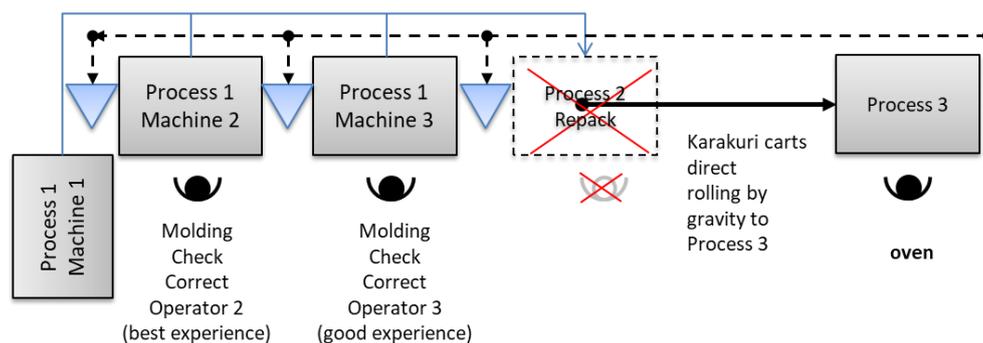


Figure 2: Layout and process after development

Source: own work

The cell design of “machine 1” and 2 made possible to rise manpower productivity again. The operator 1 was delegated to another molding machine. The empty trays after the oven (process number 3) returned to operators for refill with new injection molded products by Karakuri cart method.

The operator 1 could perform in average only 2-3 pcs / 1 machine cycle /out of 5 pieces. Remaining 3 pieces increased the WIP and this material was waiting for operator processing because after one cycle time took only one by one piece to inspect, and to correct. The flow was not continuous. The high volume of WIP (Work In Progress) around the three operators (52,18,10 pcs.) relates with high initial scrap ratio average 14,8% (48%, 2,43%, 2,21%) / shift before development and this is high variability. The scrap was not counted by any means because it was considered as rework raw material after recycling. It was a false point of view. 243 human and machine related problems were identified. The main cause of time and output loss is the non-standardized work processes of human work. The time and quality loss was related to the quality of the pressing machine tool and lack of maintenance, the molding temperature changes and then the human “voluntarily” interventions.

The research shows that all the 16 TPM defined factory losses were present. The time loss by operator 1 during 2:30 hours observation time was 39,9%. Also the work environment and layout was changed. Due to changes the ratio of VA/NVA increased (*Table 2*).

More than 243 problems were identified and 5S-TPM cards (as RED TAG) were filed and visualized on PDCA board. 221 were solved (90%) to and 22 (10%) were planned for later solution because of engineering design and fabricate the final Karakuri structures.

Waste reduction by Karakuri Kaizen is to reduce operator motion, movement and transportation or handling. There was developed and implemented on workshop “two bin” system Karakuri storage carts, for POU (Point of Use for Operator) for placing the semi finish good and using the additional packaging materials, too. The same POU height was ensured by gravitational trays balanced by weight system.

Table 2. The number of operations and VA /NVA ratio at operators before standardization and after

Operator	Before Improvement			After Improvement		
	VA activities	NVA activities	VA/NVA%	VA activities	NVA activities	VA/NVA%
Op.1	5	83	6,0%	5	11	45,5%
Op.2	5	34	14,7%	5	11	45,5%
Op.3	5	54	9,3%	5	11	45,5%

Source: own calculation

The operator transportation waste and search for production packaging materials was 100% eliminated. The finished good was gravitational moved to the up-stream process by FIFO flow of the carts direct towards the oven. No extra time and effort, energy needed by operator just step on lever by foot when the cart was full. The cart replacement was automatically solved by the 2 bin system. The raw material was not handled by operators. The material flow was assured by self-moving, Karakuri carts. The manpower productivity increased 25%. New roles and rules has been set. In total new 4516 products/shift were produced comparing to the base data. The financial Value Added of development meant 0.3 Euro x 200 (days) x average extra pcs. This gained profit and more flexibility for customer and no overtime.

Discussion

By identifying problems standing in Ohno Circle (go and see) and working in team is one of the best practical approach for process development. The team spent 2/3rd time for data collection for analysis, 1/3rd for ranking the solutions, and solving. By the 5S-TPM cards visualization was possible to see where problems are and with the PDCA list the order of solution was clear for all. Creating the three teams was possible to analyse 50% of the production machines three out of six and involved 50% of operators as well. The biggest waste the biggest result can be achieved at operator 1. The P1 (productivity) after 1st day implementation and P2 shows drastically increase and decrease of scrap because eliminating waste operations. There is strong relationship between the number of WIP (85 psc.) reduced to 10 around the each operators. On the storages the WIP was controlled by Karakuri cars capacity. Manpower productivity was increased, the results confirmed by controlling. The results prove that the Karakuri Kaizen can be used as a lean tool and the productivity improvement methods have to use parallel and together.

Conclusion

There is always a better way to do the everyday work improving by Kaizen. To increase productivity is needed to train people even in an intensive way. In the practical improvement based on premier data collection is needed to break down the job even to seconds making difference between VA and NVA activities. The practical approach and solutions must rely on structured well organized scientific methods that is easy to understand for everyone. The complex jobs must break apart to small

ones that everyone can perform to assure the continuous flow towards the customer. For this is needed also the change of the work environment. The lean approach always gives the possibility to understand how to identify and solve the problems in the simplest way on low cost.

This study and our previous experience and research prove that the Lean-Kaizen methods are complex. The elements of the methods complement each other, and the actual problems decide the usable tools. Without company's management commitment the Lean-Kaizen methods cannot be successful.

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MANAGEMENT OF AFFECTED AREAS BY THE POLLUTION OF SLAG AND ASH DEPOSITS

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Abstract: The technological processes from the combustion of certain materials in boilers results in significant amounts of slag and ash waste. Such industries that produce waste as slag and ash as a result of the process obtain electricity in the thermoelectric power plants. The biggest environmental problems caused by the thermoelectric power plants are air pollution and landscaping. In order to reduce the pollution caused by the slag and ash deposits, they should be ecologized upon completion of the slag and ash deposition process. An environmental management system aims at finding the most effective solutions for complying with environmental protection requirements. In this case, more economic solutions are needed to comply with the legislation. In this paper we will present a method of greening the slag and ash deposits of the thermoelectric power plants in the territory of Romania and the related costs.

Keywords: environmental management, greening, costs

Introduction

In recent years, environmental issues are an integral part of the strategy of companies around the world. Each economic unit strives to achieve and demonstrate, along with economic growth, a high level of environmental protection to comply with environmental legislation.

In this context, countries with high environmental standards are interested in protecting them from competitors in countries where they are less severe.

More than ever, it is recognized that effective pollution control cannot be achieved exclusively on technological solutions but must be addressed through an environmental management system integrated with the overall management of the company.

In many countries, the implementation of environmental management systems, although a voluntary action, has succeeded in convincing not only to the obtained financial benefits (such as: identifying areas that can bring savings, increasing production efficiency, finding new markets, etc.), but also by increasing creditworthiness in obtaining bank credits, attracting investors and new beneficiaries.

In present, the company's focus on the introduction of environmental management systems (EMS) can be found at a global level. They provide a structured and systematic way of integrating environmental issues into all aspects of a company's business.

The goal is not only to comply with environmental legislation and minimize financial risks, but also to continually improve the environmental performance, thus ensuring a good image and a number of advantages in the competitive market.

Data and Methods

An environmental management system has as main objective to help a company in:

- identifying and controlling the environmental aspects, impacts and risks of the company;
- meeting the environmental policy objectives and targets, including compliance with environmental legislation;
- defining a set of core principles guiding future activities addressing environmental responsibilities;
- establishing increases in the company's environmental performance based on a cost-benefit balance sheet;
- determining the resources needed to achieve the objectives;
- defining the responsibilities, authority and procedures to ensure the involvement of each employee of the company in reducing the negative impact on the environment;
- establishing an efficient communication system inside the company and providing training for the staff. (Emília Škorecová, Anna Látečková, 2017), (Ludmila Dobošová, Dominika Čeryová, Mária Urbánová, Martin Jamrich, 2017), (Rojanschi, Vl., Bran F., Grigore, F, 2004).

Industry throughout the world in its long existence has had and has negative effects on environmental factors. Today there is the problem of rehabilitation of areas affected by industry.

Slag and tailings dumps lead to significant problems in how they contribute to environmental pollution. These, upon completion of the filing process, should be rearranged and rendered in the natural circuit.

The tailings ponds are hydrotechnical constructions that are constructed as enclosures for tailings storage resulting from industrial production processes. They are also used for the storage of alluvial material resulting from dredging of waterways, decoltering of accumulation lakes, etc. Slag and ash are deposited in sedimentation tailings pond.

Reintroduction in the economic circuit of land affected by anthropogenic activities is based on a complex of redevelopment works of affected areas. (Tataru Dorin, Tataru Andreea Cristina, Stanci Aurora, Radu Sorin Mihai, Nan Marin Silviu, 2015)

Government Emergency Ordinance no. 195/2005 (approved by Law No. 265/2006) on Environmental Protection creates a legislative framework. This ordinance requires the redevelopment of the areas affected by anthropogenic activities after the completion of the works and the closure of the activities in the affected areas.

Reintroduction of the land degraded by anthropogenic activities into the economic circuit is carried out on the basis of a general planning plan. It must be drafted, discussed and approved by the local community and the law enforcement bodies on the basis of which the works are planned and carried out.

The choice of ecological reuse is based on the available resources as well as the attitude of the owners and the local community.

Restoration work on degraded land must be given an economic potential.

Slag and ash discharges could be ecologized by naturalistic or productive recultivation. (Tataru Dorin, Tataru Andreea Cristina, Stanci Aurora, Radu Sorin Mihai 2016)

Results and Discussion

The costs of rendering slag and ash deposits in the economic circuit are significant. For this reason, methods of productive recultivation have been proposed. By productive recultivation, greening costs can be amortized over time.

In order to reintroduce the areas in the economic circuit, it is necessary to carry out specific preparation of the land surfaces of the slag and ash deposits. These mandatory procedures are very expensive. In order to compensate over time the costs of preparing the land, we proposed to render in the economic circuit of the land areas by cultivating them with vineyards, namely the vine.

In the case of productive re-cultivation with vines the costs related to the realization of the crop are:

- soil preparation costs,
- costs of acquiring or renting the necessary equipment,
- labor costs,
- purchase costs of vine cuttings, and other planting material,
- maintenance costs over the development period,
- costs for treatments.

After the planting process is completed for a period of 4 years, we will only have the costs of maintenance and treatment. After the first four years the vine begins to become productive, the costs of maintenance and treatment being covered by annual incomes. Also, every year after the development period, a damping of the greening costs will be achieved.

The costs of planting one ha of vine in Romania are shown in Table 1. The table was made depending on the materials and equipment to be used in the three stages of greening, namely soil preparation for planting, planting and maintenance, the mandatory steps to be taken before the planting of the vine concerning analyzes and treatments, and labor costs. These costs are calculated according to the level of the Romanian market.

Table 1. Total costs related to the planting of one ha of vine in Romania

Planting costs in Romania	
Type of works	TOTAL (Euro)
Cost for land preparation and for planting	
Soil analyzes	30 Euro
Applying organic products to increase organic matter and correct Ph	400 Euro
Compaction to bury organic matter	35 Euro
Fertilization before planting	165 Euro
Soil preparation	35 Euro
Plantation	
Marking for planting	1000 Euro
Planting and irrigation	4400 Euro
Instalation	
Installing of the pillars	2300 Euro
Installation of the support	135 Euro
Installation of wire wires, stretchers, poles	900 Euro
Maintenance	
Phytosanitary treatment (5 passes)	55 Euro
Total	9544 Euro
Annual maintenance costs	
Prunning	850 Euro
Phytosanitary treatment (8 passes)	142 Euro
Total	992 Euro

Source: own study

The costs of making a vine plantation are composed of material costs, mechanization and labor.

The cost of achieving one vineyard plantation per hectare in Romania is 9455 Euro

Once the planting process is completed, the vineyard requires careful maintenance every year. Annual maintenance concerns treatment, prunning and binding. The annual cost per hectare of vine for maintenance is 992 Euro in Romania

The costs of vine planting and maintenance can be amortized by production to the final products after four years.

Four years after planting, the vine becomes productive. Due to the fact that the chemicals in the slag and ash are not transmitted in the fruit beyond the maximum admissible limits, they can be used. Fruits can be sold fresh or for the production of alcoholic and non-alcoholic beverages.

Depending on the type of grape varieties chosen per hectare, between 5,000 and 10,000 liters of wine or juice can be obtained.

This type of reintroduction of the land affected by the deposits has a positive impact on the population in their vicinity. Planting, maintenance and subsequent production will create new jobs.

Conclusion

Environmental management is an important component of environmental protection.

An environmental management system aims at finding the most effective solutions for complying with environmental protection requirements.

Due to the high cost of redeveloping degraded land resulting from industrial activities, it is necessary to find redevelopment solutions that can be compensated over time.

The costs of vineyard recultivation of slag and ash deposits are amortized after 4 years of planting.

Planting one hectare of vine may reach costs of 9455 Euro in Romania.

The cost consists of the materials and equipment to be used in the three greening steps, namely soil preparation for planting, planting and maintenance, analyzes and treatments, and labor costs.

The costs are calculated according to the level of the Romanian market.

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HUMAN CAPITAL MANAGEMENT IN MICRO ENTERPRISE: A CASE STUDY

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Abstract: The creation of success by organizations is based on the fundamental assumption that any action requires capital involvement in the process. The key term of the presented issues is human capital. It is built in a number of components which contribute in varying degrees to the ability of a worker in the field of processes, leadership, innovation or efficiency. Human capital management allows the use of the potential of the employees of the enterprise. The correct process should be adapted to the capabilities of the staff and the requirements of the main organizational processes. The main aim of this article describes the way of identifying and assessing the level of the main personal processes that are creating the HCM based on the example of a micro-enterprise. The aim of this article is to present the approach based on the selection and implementation of specific actions in the field of personal practices implemented by the enterprise. The characteristics of key processes are used for projects and the implementation of HCM.

Keywords: human capital, human capital management, micro enterprise

Introduction

Continuously since 2009, the number of micro enterprises in Poland has been increasing. In almost each of the last ten years, the ratio of the number of businesses owned by individual persons and employing up to 9 people was about 9.4 out of 10 micro-enterprises (GUS 2016, p.1).

The human factor, which mainly determines all processes occurring in the organization, is of key importance for the effective functioning of the enterprise. Human capital (HC) influences the effects of the employee's actions and the results of the company's processes. Diversified capital structure and the ability to use human potential determine the place and position of the company on the market. Organizing decisions made by people should be based on high quality data and usefulness. Human capital (HC) analytics is the application of analysis and data processing procedures to people data in order to provide information and insights about the nature of individuals and the value that they contribute. Smaller organizations use the data less than larger ones to use HR analytics (CIPD 2017, p. 19). Micro-enterprises and units of the SME sector primarily use data on labor costs, which is a small fraction of the opportunities arising from the use of human capital data as part of their business.

The purpose of the article is to present on the basis of a case study how a micro-enterprise can identify the scope of data and activities in the field of human capital management (HCM). The presented study verifies the role of human management in micro- enterprise to sustain performance through different stages of organization transition. It explores how practices and approaches need to change as organizations develop their products, services and effectiveness. Furthermore, it provides insight into the way people perceive activities implemented in the field of HR.

The participants of the study were employees and managers of the micro-enterprise representing the largest group of microenterprises registered in Poland, companies offering vehicle sales and repairs. They accounted for 26% of all entities employing less than 10 people.

Background

According to the Accounting for People Task Force "HCM is an approach to people management that treat it as a strategic issue and seeks a systematically measure how people politics and practices create value"(Young, 2005, p. 24). The HRM literature explains the relationship of HRM practices and company performance through the resource-based view (Ingham 2007, Król 2015, Borowski 2013). Literature indicates that the key to the proper use of human capital is measurement (Król 2015, Ingham 2007, Becker 2009, Massingham 2015).

Employees make a direct impact on micro-enterprise performance. Managers responsible for people processes can have an immediate impact on the organization adaptability, productivity and profitability. As enterprise adapt and change, human capital activities need to be reviewed to ensure the company is ready for new opportunities (CIPD 2012, p. 5). The determination of the practices used in the enterprise was based on the phases of the life cycle of the organization. Such a division

allows to determine which of the applied practices are adequate to the needs of the enterprise and the stage of development, and which activities allow for the transition to the next stage of development. Each phase has its own unique characteristics and the business activities will reflect the current point within the life cycle (Orobia, Padachi, Munene 2016, p.98)

The four transition stages are entrepreneurial phase, developing enterprise, consolidating organisation, established organisation. A first step in creating a human capital practices is to ensure that organization is measuring the right things. The design and development of relevant HC metrics requires reliable design, implementation and verification in order to determine what it takes for the organization to succeed and to understand how HC can add value. Three issues underpin effective measurement:

- aligning measurement with goals,
- taking a external and internal goals perspective,
- adding value by focusing on building capability (CIPD 2012, p.7).

Enterprises are dynamic and complex, they constantly evolve, grow and develop at different rates and in different circumstances. They can achieve sustained high performance in any of these stages. In addition, they have ability to move forward or backward between the phases. Characteristics of individual stages of the cycle will be made in the form of a table 1. It will take into account the activities carried out by the company in the general organizational aspect as well as activities undertaken within the framework of personal processes.

Table 1. Processes according to the transition phases

Stage of transition	General organizational processes	Personal processes
Entrepreneurial phase	<ul style="list-style-type: none"> - high levels of informality, - strategy is emergent rather than formally planned, - the owner's vision and values drive practice, - there are fluid structures. 	<ul style="list-style-type: none"> - training on the job and through experience, - owner make decisions about pay - people management issues are usually dealt with by the owner, - flexible job roles.
Developing enterprise	<ul style="list-style-type: none"> - some procedures and processes to achieve more operational consistency, - requirement to be able to react quickly to immediate issues, - flexibility remains important. 	<ul style="list-style-type: none"> - employment issues need to be managed more effectively to achieve consistent performance, - there is a need for certain personal practices, policies and processes.
Consolidating organization	<ul style="list-style-type: none"> - need to more specifically management development, - operational functions are more dispersed and less mutually dependent, - communications have to be more systematically organized to ensure that the right messages are being communicated 	<ul style="list-style-type: none"> - there is need to think more about career development, - use personal practices as a retention tool and to provide the talent basis needed to sustain performance, - employees need to feel their views are heard, - linked to an alignment of reward with longer-term business goals
Established organization	<ul style="list-style-type: none"> - main aim is understanding an extensive knowledge of the market, - crucial is the business strategy, and the capabilities or weaknesses of the organization, - organization culture, engagement and cross-function collaboration are precisely defined 	<ul style="list-style-type: none"> - job enrichment and talent development are precisely known, - there is a measurement system that affects the personnel processes, - HC is an important element of building an important source of competitive advantage of a company, - the key meaning is the ability to identify and develop human potential

Source: own elaboration

At the first stage there is very little to do with people management. Mainly at organization rely heavily on people's implicit 'know-how'. At the second stage organizational form is usually characterized by a greater formalization of the structure. At the third stage of development organization business strategy should be more planned. The challenge for people management is to make sure that personal practices support the achievement of the organization targets and are aligned with the strategic direction and values. A main issue at last stage of development is orientation on the long-term performance of the organization. It requires a deep understanding of the organization's unique context, and employees potential.

Regardless of the development phase, the organization should be fully aware of the actions taken and the goals it pursues. General HCM activities can be defined as activities taking place in the context of learning and development. They are focused on activities to create and deliver value for the individual groups involved in organizational processes (Rogoziński 2012, p.142). Human capital properly used may be a key asset in gaining a competitive advantage, especially considering the specifics of service activities. It has been found that strategic human resource practices influence employee behavior and generate positive effects in firm performance(Kamasak 2017, p.257).

The article is an attempt to show how the personal processes carried out in an example enterprise are perceived from two points of view of the employees and managers. The division into phases is to allow showing disproportions in the understanding of organizational processes and demonstrating a possible inconsistency between the advancement of individual processes regarding HC.

Methodology of the study

HC represents the human factor in the organization: the combined intelligence, skills, and expertise that give the organization its distinctive character (Massingham, Tam 2015, p. 394). The most universal general purpose of building competitive advantage is to distinguish among the tasks carried out by the company specific actions which are the source of value for the customer for which he pays. (Borowski 2013, p.20).

Human capital management requires the selection of tools and practices to be applied, taking into account the following factors: business area, the scope of using human potential, sources of building a competitive advantage, adopted strategic goals, the development stage of the organization, market position. Variables that can be included is much more, but the inclusion of these make HCM better suited to the capital which it relates. While building the HCM process it is worth to verify how the implemented personal practices are assessed by the units subjected to specific activities. Employee's point of view is crucial to designing the development process and using the human potential in the organization.

The first element of the assessment is the identification of basic practices within individual stages of the organization's development. This will allow to verify both the effectiveness of practices implemented in HCM and for the construction of HCM strategies, and determine in which point inconsistencies or disproportions in the assessment occur. This is an important signal both for HCM design and the method of verification of the process carried out in a given organization. Table 2 includes the practices that will be evaluated in the presented case study.

The research tool used in the study was a questionnaire. The questions included in the questionnaire were divided according to the life-cycle transition of the companies considered through the prism of advancement of the personnel processes. Each participant expressed opinions on the status of a given personnel process according to the Likert scale. 1 means strong disagreement, and 5 means strong agreement.

Table 2. Personal practices used in the organization

Stage of transition		
A Entrepreneurial phase	1	There are no official HR roles or people management assigned.
	2	Problems with managing people are solved by the owner.
	3	Recruitment is based on current needs and skills.
	4	Workplaces are often changed.
	5	The owner determines the company's development directions.
B Developing enterprise	1	Training is carried out in response to urgent and important needs.
	2	Work rules are required because their lack creates a problem.
	3	HRM is focused on everyday tasks related to employment.
	4	People have a clearly defined job to avoid duplication of effort.
	5	Communication is more formal but based on direct conversation
	6	Managing people is a reaction to the challenges that arise.
C Consolidating organization	1	Rewarding employees is tailored to the organization's goals.
	2	The method of rewarding performance is clearly defined.
	3	Employees know the long-term requirements for their skills.
	4	Employee engagement is an area of interest of management.
	5	There is two-way communication between employees.

D Established organization	1	Internal cooperation is a priority area for the organization.
	2	Career development is determined by planning trainings, courses.
	3	There is a clear way to lead people in the company.
	4	Employee engagement is a key area for management
	5	The company has a clearly defined vision and values.
	6	Management focuses on external and internal areas of activity.

Source: own elaboration

The study was based on the verification of the selected personal activities in a microenterprise located in the West Pomeranian Voivodeship. Participants were 5 executive employees providing services in the field of mechanical processes. Participants in the study taking into account the age and work experience have been apprehended in figure 2.

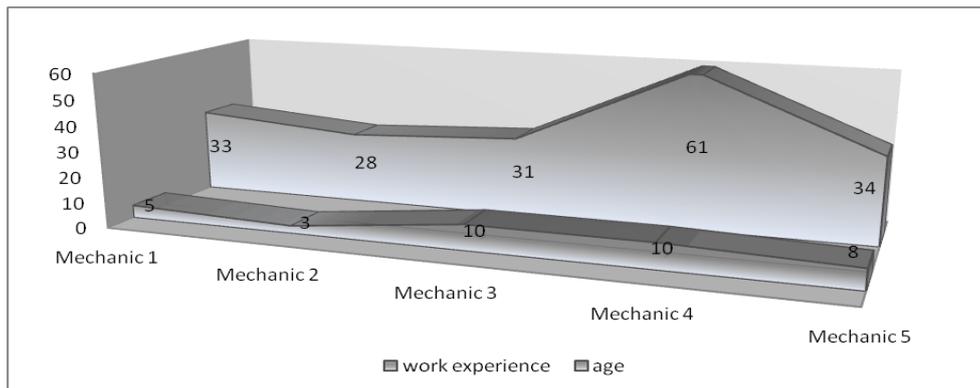


Figure 2.Characteristics of the survey respondents

Source: own elaboration

Evaluation of personnel practices by employees -study results

According to the basic assumption included in the article, the activities were divided taking into account the transition phases of the organization. Each phase takes into account different details and advancement of a given area of personal practices. The responses provided by the employees are shown in Figure 3. The joint approach and discussion is caused by limitations resulting from the editing requirements.

First of all, each result below 3 indicating a lack of compliance indicates that the considered personal practices in a given company are not implemented in the manner included in the survey. Thus, it is advisable to transform the method of perform the given action. More than evident are significant disparities in the evaluation activities and therefore in the transition through the various levels of the organization.

The respondents answers obtained on the basis of the study allow for making basic analyzes, which, as assumed, should be used while building the HCM process. The presented approach assumes that realization of the HCM process is based on specific actions tailored to the needs and conditions prevailing in the organization (Delery, Gupta 2016, p.141) . Efficient implementation of individual practices is the basis for HCM implementation process.

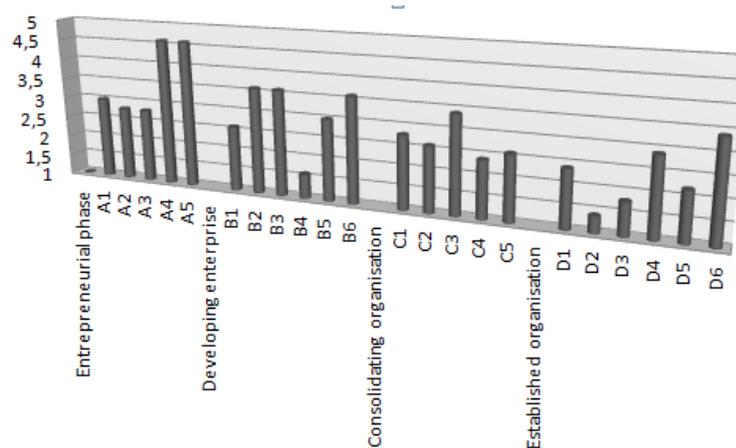


Figure 3. Employees evaluation of the personal processes

Source: own elaboration

The respondents of the study assessed the measures carried out on a scale from 1 to 5, where 5 means total compliance with the aforementioned claim. The first stage is characterized by the lowest assessment of the activities of A2 and A3, which means that the weakest areas are skills-based recruitment and solving problems related to personal management in the organization. The second transition area indicates the large differences occurring at point B4. This means that employees disagree with the statement regarding a clear division of the scope of work. This is an important suggestion for the management, both due to the effectiveness of the services provided, but also due to the effectiveness of personal practices. The consolidation stage obtained the lowest result for the statement regarding the attainment of the company's management in the area of employee involvement. This is the superior area that constitutes the basis for building value through the human capital, therefore the rating at 2.4 is definitely unsatisfactory and is a clear signal that the HCM process can't be efficiently implemented.

The last stage of the transition assumes the functioning of a stable enterprise. At this stage, all personal practices should allow for achieving the intended goals through the use of human potential. In the presented study, the majority (5 out of 6) of factors considered in this area were rated below 3 points. Which clearly indicates that the company is not in a stabilization phase and the activities undertaken in the scope of HC diverge in the assessment of employees from the desired state.

By verifying the opinions obtained as a result of employee evaluation, it can be stated that personal practices are at best at the level of the developing enterprise. Employee evaluation should be a clear signal to management that the adopted process of exploiting the potential of employees does not allow to obtain optimal results. The basis for this is to ensure the efficiency of the practices related to human capital and only at a later stage create a project of HCM process. The presented approach is quite simple but nonetheless shows the state of personnel processes in a given organization.

Discussion about assessments of personnel processes

Employee evaluation shows the point of view of the owners of human capital, while in order to get a full picture it is necessary to verify how the actions taken are defined by the managerial staff. In the presented part of the study, the respondents were also two managers, being co-owners of the company.

Each of the transition areas will be presented separately below, the interpretation will be optimized in order to adapt to the applicable requirements.

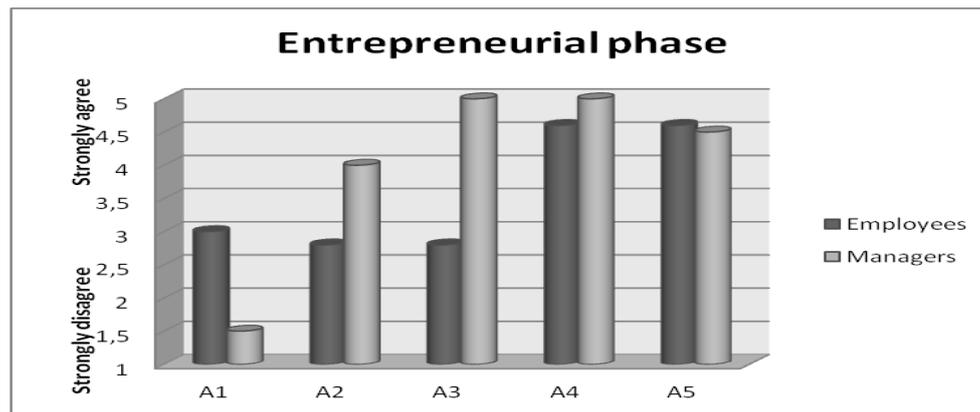


Figure 4. Summary assessments of the operations of the first transition area

Source: own elaboration

The first of the compared phases included in Figure 4 takes into account the scope of activities assessed by employees at the most. Against the background of the responses of two groups of employees, the claims about HR roles played by managers are clearly marked, A1. You can see a clear difference in opinion, which is definitely a negative phenomenon. If there is no compliance in the basic issue regarding the HR process, it is difficult to expect that the activities involving personnel processes will be implemented correctly and effectively.

The next verified area shown in Figure 5 is the development phase. Which is characterized by a greater specification and advancement of the personnel practices used. The presented study shows a significant disproportion in the assessment of individual activities included in the phase by the verified groups of respondents. The managers in all cases agree with the statements. The biggest difference in assessments concerns of the organization work process B4. In service activities this is crucial, which is why such a disproportion of ratings is definitely not recommended.

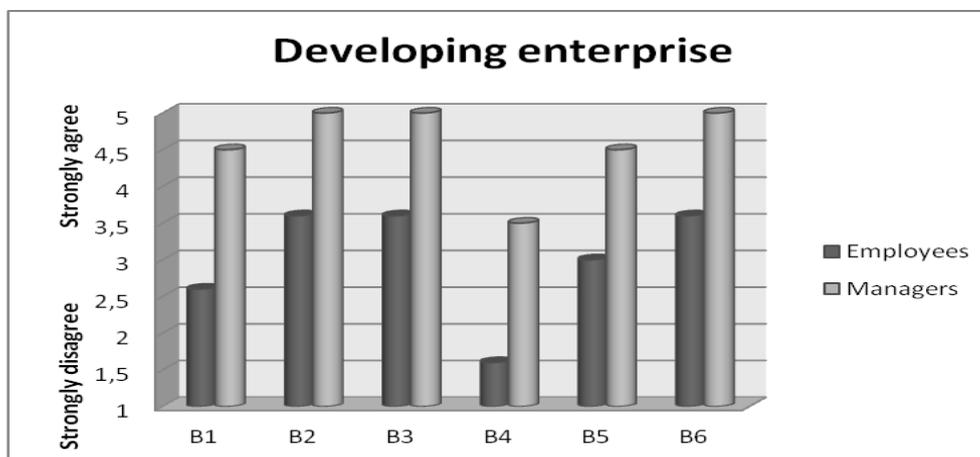


Figure 5. Summary assessments of the operations of the second transition area

Source: own elaboration

The third phase shown in figure 6 includes organizations in the consolidation process. Again, in the assessment of two groups of respondents, different views on verified issues were noted. Among the human resource activities listed above, the biggest difference in assessments is in the perception of employee involvement, activity C4. The HCM process is based on building and deepening the involvement of capital owners in all organizational processes. This is the basis for creating value as well as for the proper use of human capital. The inability to induce employee involvement prevents proper use of the potential they have.

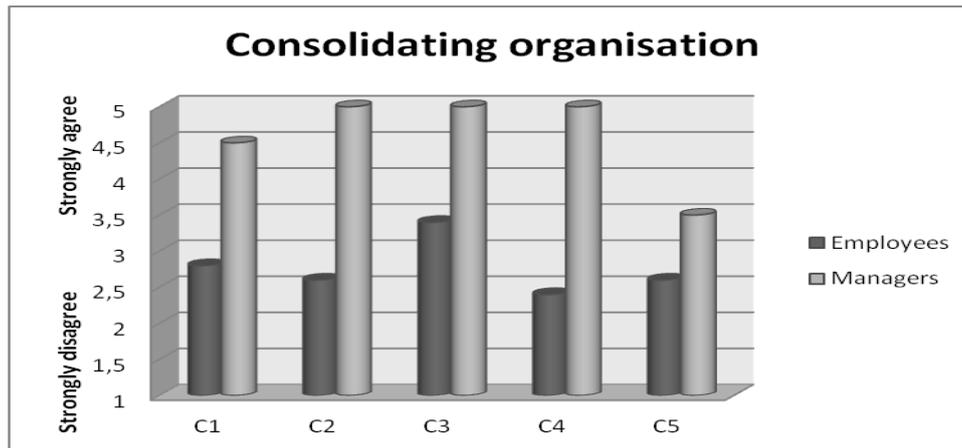


Figure 6. Summary assessments of the operations of the third transition area

Source: own elaboration

The last area presented in figure 7 is the organization in the stability phase. Personnel processes at this level should form the basis of the created human capital management strategy. The HCM process should be optimally matched to the capital which takes into account and directed at improving the actions taken. There is also a measurement system that forms the basis for decision-making processes.

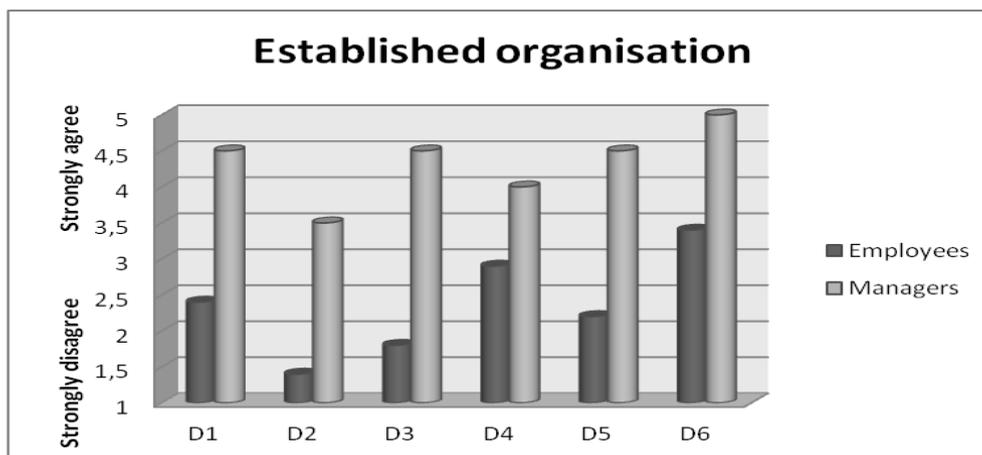


Figure 7. Summary assessments of the operations of the fourth transition area

Source: own elaboration

Figure 7, in addition to significant discrepancies in assessments, points to two crucial areas that show the inadequacy of the practices used in the company. The first one concerns the development of the staff D2, by providing an appropriate series of training and other forms of improving the level of skills and competences of the staff. The second area D3 is related to the process of leadership, which in the opinion of employees is not sufficiently specified. These practices are considered demanding assignments that expand the capacity of employees to perform leadership roles in the future (Björkman, Mäkelä 2013, p.570). They are used as a source of competitive advantage of key importance for the personnel practices, allow to increase the capacity of employees. (Khoreva 2016, p. 538)

Conclusion

Every human practices must be oriented toward increasing the organization's competitive advantage in the marketplace (Sandholtz, Burrows 2016,p.168). The presented study first of all shows that the undertaken practices are not implemented especially in the employees' opinion in an appropriate manner. Therefore, it would be impossible to properly design and implement the HCM process. In order to efficiently and effectively manage human potential, the organization must create

conditions to understand, use and develop these components, which are crucial for building a competitive advantage of a company. Thus, the verified case not only does not have properly constructed bases of the HCM process, but accepted practices that are used as part of this process are not properly implemented, far from the point of view of the employees of the organization who invest their capital in it.

The purpose of the use and development of human capital is to maximize its value during the implementation of management processes. Shaping the organization process is determined by the strength of mind and the ability of its use by employees. The presented concept assumes that the enterprise, based on the implemented personnel practices, designs the human capital management process. Verification of accepted practices was based on the opinion survey of two groups of respondents. The purpose of full presentation of both entities responsible for the implementation of processes and units subject to specific personal practices.

The human capital management process requires not only appropriately selected and implemented activities, but also the creation and use of tools that will allow verification of the processes undertaken. The approach presented in the article is an attempt to assess the validity and effectiveness of HR processes, which should be the base for human capital management in organization.

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THE ROLE OF THE REQUIREMENTS OF QUALITY, ENVIRONMENTAL AND SAFETY MANAGEMENT SYSTEMS IN THE RELATIONSHIP WITH SUPPLIERS

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Abstract: The purpose of this research paper is to present the role of the requirements of quality, environmental and safety (QES) management standards in relation with suppliers. The article describes the results of empirical studies carried out on enterprises operating in the Polish market, the aim of which was to identify the main requirements for suppliers that refer to the guidelines contained in QES management standards. The research was carried out through the use of the CATI technique and covered 300 producers that were suppliers for enterprises from the automotive, metal and chemical sectors. The results of the conducted research indicate that the main supplier requirements relating to the guidelines included in QES management standards were: the quality of product and process control, improvement of health and safety conditions in the workplace, establishing measurable objectives and indicators for operational processes, as well as identifying and limiting the negative impact of products and processes on the environment. For many companies, their relations with suppliers are not just confined to fulfilling rigorous requirements. Increasingly, they recognize that building their competitive advantage also requires building partnerships with suppliers that are manifested in joint projects in the field of effective application of the requirements of QES standards, and has an impact on the improvement of the products and processes in the supply chain

Keywords: supply chain management, quality management, environmental management, safety management, risk management, management, supplier relationship management

Introduction

It can be noticed that when establishing their relationships with new suppliers, many Original Equipment Manufacturers (OEMs) focus their requirements on the guidelines included in quality environmental and safety management standards (Oliveira 2013, pp. 124-1330; Nunhes, Motta, Oliveira 2016, pp. 1234-1244). The expectations of buyers towards suppliers most often concern the latter's implementation of a quality management system based on the guidelines included in the ISO 9001 standard, which focuses on setting out the required parameters for products and services, as well as improving operational processes (such as customer service, design and development, production and delivery of products and services). Disseminating the concept of corporate social responsibility results in an increasingly broad range of expectations towards suppliers in limiting their negative impact on the natural environment (Tuczek, Castka, Wakolbinger 2018, pp. 399-416). This results in suppliers being required to implement an environmental management system based on the guidelines contained in the ISO 14000 series of standards (Siva et al., 2016, pp. 148-157). It can also be observed that the increasing level of client awareness is related to the risk of products and processes in supply chains (Fonseca, Domingues 2017, pp. 1200-1006). As a result, suppliers are increasingly expected to implement product safety systems (especially in the food, cosmetics, automotive, air and rail sectors). Risk reduction in relation to processes has a very wide scope, as it refers to ensuring the safety of employees, information, and operations in a supply chain. It can therefore be noted that the implementation of elements of QES systems becomes an important criterion for initial and periodic assessment of suppliers and for building partner ties with them. Recognizing the importance of this criterion, as the purpose of this article it was undertaken to present the role of the requirements of quality, environmental and safety (QES) management standards in the relationship with suppliers.

Literature review

One of the most important requirements of the supplier is guaranteeing the technical quality of products. Ensuring technical quality of products requires strict compliance with legal requirements relating to ensuring safety (regulations in European Union directives and technical standards). Quality assurance requires special supervision of the operational processes related to product realization, as

well as supervision of resources such as people, infrastructure and the environment for the operation of processes (Cai, Jun 2018, pp. 248-260). Of particular importance in assuring product safety is the role of the effectiveness of monitoring processes and measurements of their parameters. The unified requirements for supply companies concerning the above-mentioned issues include the ISO 9001 standard (Su, Dhanorkar, Linderman 2015, pp. 31-44), the latest edition of which is based on the concept of risk management (as described in the ISO 31000 standard). It should be noted that in some sectors the requirements placed on suppliers in the field of quality management do not only concern compliance with the guidelines contained in the ISO 9001 standard. They are also extended by additional requirements contained in relevant documents (specifications, standards) such as the automotive sector (ISO/TS, IATF 16949, VDA series 6), the aviation sector (AS/EN /JISQ 9100), the rail industry sector (IRIS), the medical device sector (ISO 13485), the primary packaging materials of medicinal products sector (ISO 15378), the cosmetics production sector (ISO 22716), the packaging industry for food products sector (EN 15593), and the sector of fusion welding of metallic materials (ISO 3834). More and more OEMs (especially international manufacturing companies) that have implemented the environmental management concept expect their suppliers to reduce their negative impact on the natural environment (Nishitani 2010, pp. 395-407). An important element of the assessment of the suppliers' implementation of the environmental management system is identifying environmental aspects and introducing action included in the objectives and environmental programmes which include specific tasks and measures of the suppliers' assessment. Increasingly, suppliers are required to assess environmental aspects in all phases of product life such as design, purchase of materials, preparation of production, production, packaging, storage and transport to the customer, sales service, installation of the product at the customer's end, its use, maintenance and waste management, as well as handling the product after its end of life (Verma, Gangele 2012, pp. 235-245, de Sousa Jabbour et al 2015, pp. 139-151). The reference to the assessment of environmental aspects in terms of the product life-cycle and risk management concepts can be seen in the new version of ISO 14001 standard (Ferron-Vilchez 2016, pp. 882-894). While managing risk, suppliers should be prepared for emergency situations (such as fire, explosions) that may cause an adverse environmental impact. These situations can bring about significant disruption of the flow of products in the supply chains. Therefore, more and more often enterprises require their partners to ensure effective prevention, but also be prepared for an emergency and provide a response. OEMs expectations of suppliers relate to the implementation of a health and safety management system (H&SMS) based on the requirements of the international standard OHSAS 18001. The aim of this system is to reduce the risks (physical, chemical, biological and psychological) of accidents at work, and occupational disease. This is accomplished through the implementation of occupational health and safety improvement programmes, which, like environmental programmes, focus on the implementation of organizational and investment projects that undertake to eliminate or reduce these risks. OEMs have become increasingly aware of the importance of risk in the supply chain. Some risks are conditioned internally (such as errors made by employees, lack of effective supervision of the efficiency and safety of the infrastructure), but also externally (such as fires, floods, hurricanes, transport accidents, catastrophes, sabotage, theft, terrorism, or loss of commercial or financial credibility). It has been observed that OEMs are developing methodologies whose implementation would allow them to reduce the level of these risks (Bueno-Solano, Cedillo-Campos 2014, pp. 1-12). More and more OEMs implement the guidelines included in supply chain security management standards. The ISO 28001 standard contains guidelines for the planning, implementation and monitoring of the flow of products and services to the ultimate customer or end consumer. The implementation of this system is based on an analysis of risks in all the processes carried out by the partners in the supply chain. The effectiveness of the implementation of this system is strictly dependent on principles of communication (about possible risks) between the partners who are participants in the supply chain (Manuj, Mentzer, 2008, pp. 133-155; Park, Min, Min 2016, pp. 120-130).

Methodology of research and results

The subject of the research conducted was the role of supplier requirements relating to the guidelines which are included in QES management standards. The research was carried out between October and November 2017 using the Computer Assisted Telephone Interview (CATI) technique.

The research covered 300 producers who were suppliers for enterprises from the automotive, metal and chemical sectors operating in the Polish B2B market. The selection criteria for suppliers were assigned a rank on a scale from one (the least important criterion) to five (the most significant). The study was commissioned to a specialized research agency that conducted a targeted selection of companies registered in the Kompas database, which is a search platform of a business directory. The results of the conducted research indicate that the main supplier requirements relating to the guidelines included in QES management standards were: quality of product and process control, improvement of health and safety conditions in the workplace, establishing measureable objectives and indicators for operational processes, as well as identifying and limiting the negative impact of products and processes on the environment. The following requirements were also relatively important in building relationships: identifying and limiting risks in the operation of processes, and infrastructure control. Detailed results of the research are presented in the tables below:

Table 1. Requirements to suppliers relating to the guidelines included in QES standards (general results and a comparison between the segments depending on capital, ranking using the Likert scale, correlations)

Requirements for supplier relating to the guidelines included in QES management standards	General N=300	Capital	
		Polish N=120	Foreign N=180
Quality of product and process control	3.66	3.98	3.45
Improvement of health and safety conditions in the workplace	3.40	3.60	3.26
Establishing measureable objectives and indicators for operational processes	3.39	3.47	3.34
Identifying and limiting the negative impact of products and processes on the environment	3.29	3.39	3.23
Identifying and limiting and risks in the operation of processes	3.19	3.30	3.12
Infrastructure control	3.15	3.19	3.13

Source: Results of empirical study, 2017

Table 2. Requirements to suppliers relating to the guidelines included in QES standards (general results and a comparison between the segments depending on the number of employees, ranking using the Likert scale, correlations)

Requirements for supplier relating to the guidelines which in QES management standards	General N=300	Number of employees	
		-250 N=223	251- N=77
Quality of product and process control	3.66	3.72	3.49
Improvement of health and safety conditions in the workplace	3.40	3.36	3.53
Establishing measureable objectives and indicators for operational processes	3.40	3.36	3.49
Identifying and limiting the negative impact of products and processes on the environment	3.29	3.29	3.30
Identifying and limiting risks in the operation of processes	3.19	3.18	3.23
Infrastructure control	3.15	3.13	3.22

Source: Results of empirical study, 2017

Table 3. Requirements to suppliers relating to the guidelines included in QES standards (a comparison between the segments depending on sector, ranking using the Likert scale, correlations)

Requirements for supplier relating to the guidelines which in QES management standards	Sector		
	Automotive N=99	Metal N=104	Chemical N=97
Quality of product and process control	3.63	3.31	4.08
Improvement of health and safety conditions workplace	3.51	3.11	3.62
Establishing measureable objectives and indicators for operational processes	3.45	3.36	3.37
Identifying and limiting the negative impact of products and processes on the environment	3.48	3.05	3.36
Identifying and limiting and risks in the operation of processes	3.36	2.96	3.27
Infrastructure control	3.22	3.019	3.23

Source: Results of empirical study, 2017

When analyzing the detailed research results and the differences between the individual segments considered, it can be noticed that all the requirements to the supplier are particularly important for companies with Polish capital and manufacturers from the automotive and chemical sectors (tables 1 and 3). These entities are usually suppliers to foreign OEMs, which impose rigorous requirements relating to QES management standards on their local providers. It can be observed that the quality of product and process control is of particular importance for small and medium-sized enterprises and chemical product manufacturers, while the remaining criteria are considered much important for large companies (tables 2 and 3). The research results clearly indicate that the expectations of customers towards suppliers focus on improving products and processes. To meet these customer expectations, suppliers are increasingly implementing the requirements related to the guidelines which are included in QES management standards. It can also be observed that the surveyed enterprises clearly focus on limiting both the negative impact on the environment and the risks in the supply chain.

Conclusion

Recapitulating, it should be noted that B2B market buyers defining organizational requirements to their suppliers focus not only on the issues related to ensuring the quality (ensuring technical quality), but also on the safety working conditions and on the limitation any negative impact on the environment. These conclusions are confirmed by the results of the tests presented in this article. Summing up the considerations, it should be stated that OEMs' requirements for suppliers to implement systematic QES management systems could bring about significant benefits. The effective implementation of quality management systems contributes to ensuring the technical quality of products by operational process control. It also contributes to limiting the negative impact on the environment by reducing harmful emissions and waste, and the consumption of natural resources. The implementation of safety management systems has the effect of reducing the risk level of threats by companies being prepared to respond in emergency situations. This ensures the business continuity in the supply chain processes. This approach is particularly important to improve the competitive advantage the all partners which are operating in the supply chain. The actions taken by companies in the field of continuous improvement through the implementation of QES management systems has a significant impact on ongoing globalization. The international expansion of many companies, especially global companies, increases the importance of technical standards (to ensure the consistent quality required), and QES organizational standards.

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FACTORS CONTRIBUTING TO CRUDE OIL PRICE CHANGES

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Abstract: The objective of our paper is to analyse the factors that can contribute to crude oil price changes. These fluctuations have a great impact on the economy and the management of people's lives to a great extent. By using the method of document analysis, we first give a historical overview of the formation of oil prices with some suggested reasons for changes. Then, the most important crises are presented with some illustrations. Finally, we concluded that the extent of oil price changes greatly depends on how countries adjust their fiscal and monetary policies in order to manage the increasing or the decreasing prices of oil better.

Keywords: demand, fluctuation, global crisis, oil price, supply, production

Introduction

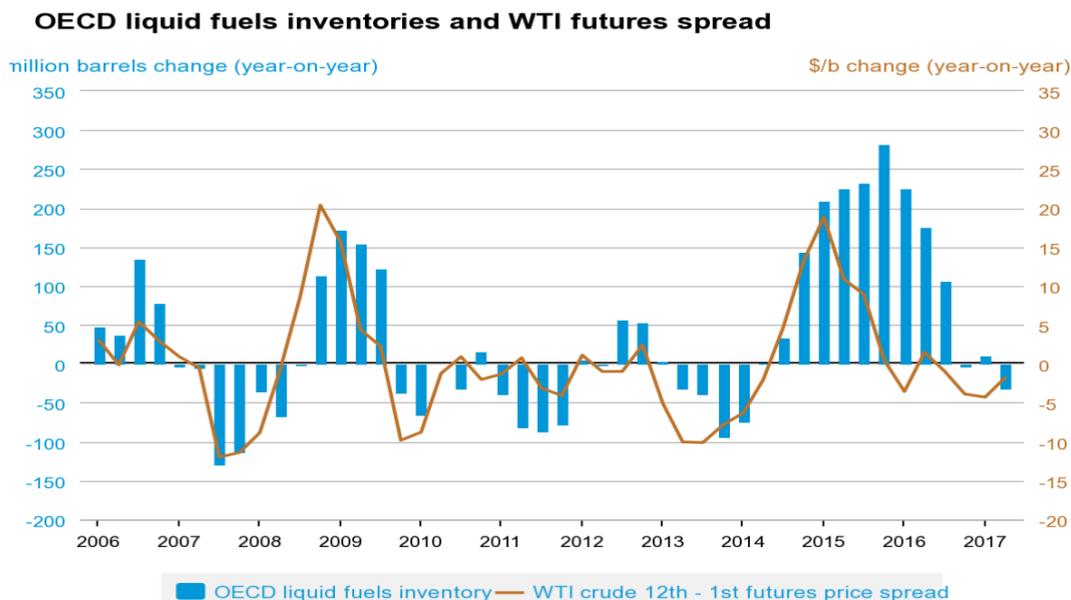
Crude oil price fluctuations have a great impact on the economy and managing people's lives to a great extent. Energy is the prime mover of economic growth and is vital to the sustenance of a modern economy. Future economic growth crucially depends on the long-term availability of energy from sources that are affordable, accessible and environmentally friendly.

Efficient, reliable and competitively priced energy supplies are prerequisites for accelerating economic growth. For any country, the strategy to obtain and meet the energy requirements and energy developments are the integral part of the overall economic strategy. Efficient use of resources and long-term sustainability in its utilization is of prime importance for economic development. Sustainability would take into account not only available natural resources but also to take care of the related ecological and social aspects to meet the priority needs of the economy. Simultaneous and concurrent action is, therefore, necessary to ensure that the short-term concerns do not detract the economy away from the long-term goals. In our paper we would like to examine the factors causing crude oil price changes.

Material and methods

In the first section of our paper we give a brief overview of literature on the different theories of the factors influencing crude oil price changes. During our research international works have been used and analysis was carried out by means of scientific books and articles. In order to have deeper insight into the economy and the repercussion of oil price changes, statistical data were also collected and analysed. Contextual indicators are also used for presenting a broader picture. The majority of the data was collected from the database of Energy Information Administration and from the Organization of the Petroleum Exporting Countries. The aim of our paper is to give an overview of current oil price changes and explain the reasons behind the changes with special regards with OPEC and non-OPEC supply.

Inventories act as the balancing point between supply and demand. During periods when production exceeds consumption, crude oil and petroleum products can be stored for expected future use. In the economic downturn of late 2008 and early 2009, for example, the unexpected drop in world demand led to record crude oil inventories in the United States and other OECD countries. In contrast, when consumption outstrips current production, supplies can be supplemented by draws on inventories to satisfy the needs of consumers. Given the uncertainty of supply and demand, petroleum inventories are often seen as a precautionary measure. In Figure 1, the price of the next (prompt) month's oil futures contract is subtracted from the price of the oil futures contract 12 months ahead. The change in this spread is then plotted over time. This difference is compared to the change in OECD petroleum inventories. The more positive the spread between the near term and longer-term contracts, the greater the incentive to build inventories. Also, declining inventories tend to go hand in hand with increases in near term prices relative to prices further into the future.



Source: U.S. Energy Information Administration, Thomson Reuters

Figure 1 Inventory builds tend to go hand-in-hand with increases in future oil prices relative to current prices (and vice versa)

Source: EIA, 2017

Refineries and storage terminals can store crude oil and/or finished products like motor gasoline, heating oil, and diesel to prepare for seasonal fluctuations, refinery maintenance, or unexpected weather. Some petroleum products, such as heating oil and gasoline, have pronounced seasonal demand variance; inventories rise when consumption is lower and are drawn down when consumption increases. For this reason, inventory levels are most usefully assessed in relation to prior year levels for the same calendar quarter.

Because inventories can satisfy either current or future demand, their level is sensitive to the relationship between the current price of oil and expectations of future prices. If market expectations indicate a change toward relatively stronger future demand or lower future supply, prices for futures contracts will tend to increase, encouraging inventory builds to satisfy the otherwise tightening future balance. On the other hand, a sharp loss of current production or unexpected increase in current consumption will tend to push up spot prices relative to futures prices and encourage inventory drawdowns to meet the current demand.

The relationship between prices and inventories allows for effects in either direction. If futures prices rise relative to the current spot level, incentives to store oil (and wait to sell at the higher expected price) will strengthen. Conversely, if market participants notice an increase in crude oil storage, this increase can indicate that current production surpasses current consumption at the prevailing price. Spot prices will likely drop to rebalance demand and supply. This balancing between current and future prices and between supply and demand through inventories is one of the main connections between financial market participants and commercial companies with a physical interest in oil, both of whom engage in futures trading. Physical inventory levels and price spreads over time act as signals between current market participants and those with longer-term exposures.

Speculation

Market participants not only buy and sell physical quantities of oil, but also trade contracts for the future delivery of oil and other energy derivatives. One of the roles of futures markets is price discovery, and as such, these markets play a role in influencing oil prices.

Oil market trading activity involves a range of participants with varying motivations, even within individual participants. Some, such as oil producers and airlines, have a significant commercial exposure to changes in the price of oil and petroleum-based fuels, and may seek to hedge their risk by

buying and selling energy derivatives. For example, an airline may want to buy futures or options in order to avoid the possibility that its future fuel costs will rise above a certain level, while an oil producer may want to sell futures in order to lock in a price for its future output.

Banks, hedge funds, commodity trading advisors, and other money managers—who often do not have interests in trading physical oil—are also active in the market for energy derivatives to try to profit from changes in prices. In recent years, investors have also shown interest in adding energy and other commodities as alternatives to equity and bond investments to diversify their portfolios or to hedge inflation risks. Every transaction must involve both a buyer and a seller, and the desired "long" buyer and "short" seller positions of those with direct commercial interests in the oil market do not necessarily equal one another. Banks, hedge funds, and other "non-commercial" investors can add liquidity to futures and derivative markets by taking the other side of transactions with commercial participants. On the other hand, concerns have been raised that non-commercial commodity trading and investment may "use up" liquidity and amplify price movements, particularly at times when momentum is running strongly in a particular direction. Figure 2 below illustrates open interest on crude oil futures exchanges.

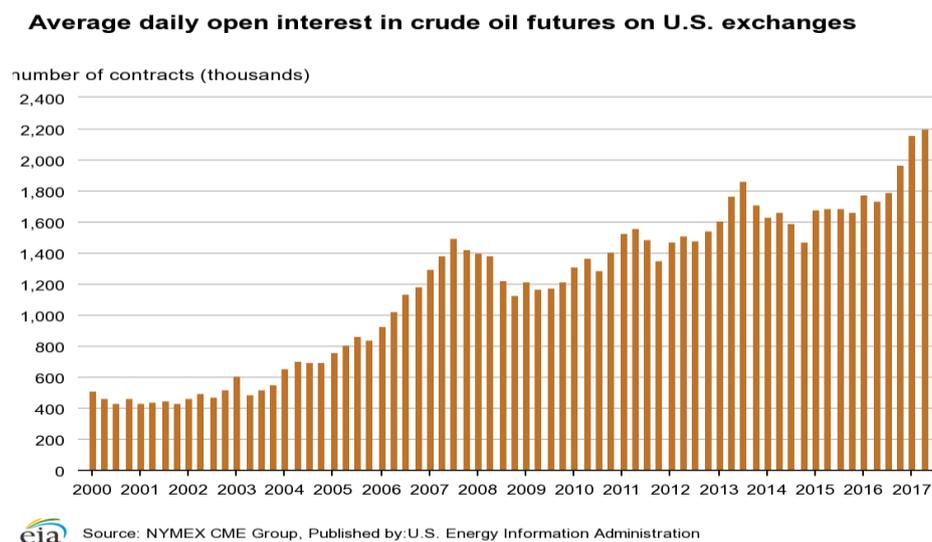


Figure 2 Open interest on crude oil futures exchanges grew over the last decade as more participants entered the market

Source: EIA, 2017

Strong world economy of 2003 - 2007 with average world growth rate of almost 5% (IMF) has resulted in excess global liquidity and subsequent boom of financial markets. Many new financial derivatives were created and a large amount of speculative funds was invested into crude oil futures. New actors appeared on crude oil market, taking long positions on futures contracts not to hedge the risk of price of physical commodity, but to profit from price fluctuations. The role of extrapolative expectations in oil price rise was described by Masters (2008) and empirically confirmed by (Cifarelli – Paladino, 2009). Crude oil markets are showing new features, they are now increasingly interconnected with other financial markets such as exchange rate market, stock market and futures market (Fan-Xu, 2011). Oil is traded globally in US dollars and is closely linked to its value. Based on this Bhar - Malliaris (2011) argue that depreciation the US dollar is one of the factors causing the increase in oil prices, as oil suppliers demanded their compensation for the declining value of this currency.

Fan - Xu (2011) identifies the "Bubble accumulation" period from March, 2004 to June, 2008, when vast amount of global hedge funds started to pour money into the energy futures market, which promoted the forming of commodity price bubbles, especially in oil futures market. Despite still fragile balance, the supply and demand fundamentals did not seem to be important driving forces affecting crude oil price changes. This is also in line with Kaufmann - Ullman (2009) who assumed that the oil market might have undergone structural changes in September 2004.

June, 2008 was marked by another structural break. Influenced by the 2008 financial crisis and global liquidity shortage, oil positions were rapidly closed, investment funds started to withdraw from oil futures markets, and price of crude oil crashed. During this time, speculation was not driving force of crude oil prices anymore, and role of economic fundamentals was re-established.

Stocks

Stocks have traditionally been the largest investment market. Economic conditions can cause prices for stocks and commodities, including oil, to move higher or lower together. As macroeconomic conditions improve (or worsen), earnings for companies increase (or decrease) and demand for commodities as raw materials rise (or fall) as well. Economic expectations are one possible reason why a positive correlation was observed during 2008-2010 between the S&P 500, a benchmark for stock markets, and crude oil, one of the most heavily traded commodities in the world.

In addition, there were significant changes in the level and appetite for risk during 2008-2010. Over the past decade, crude oil has shown similar risk/return characteristics to stocks. As a result, during periods where risks were rising significantly (during the financial crisis) and then abating (during recovery), stocks and prices for crude oil and other commodities could tend to move in the same direction.

Bonds

As economic conditions improve (or worsen), interest rates on government bonds will tend to rise (or fall). Since bond prices and interest rates move in opposite directions, U.S. Treasury bond prices and the price of crude oil would also tend to move in opposite directions in times of significantly changing economic conditions.

In addition, bonds, the second-largest investment market, are often viewed as lower-risk investments than stocks, albeit with lower average returns. As an asset class, bonds are generally less volatile and carry a lower chance of losing principal. U.S. Treasury bonds, in particular, are usually considered a riskless investment. As investors become worried about future returns in higher risk assets, such as stocks and commodities, they tend to increase allocations to bonds in their portfolios.

Currencies

Several hypotheses have been offered that tend to support an inverse relationship between the exchange value of the dollar relative to other currencies and crude oil prices. The first is simply that because oil benchmarks are traditionally priced in U.S. dollars, a depreciation of the dollar decreases the effective price of oil outside the United States. This decreased cost may increase consumers' demand for oil, adding upward pressure to prices.

A second potential reason is that U.S. dollar depreciation will decrease the effective profits of non-U.S. producers, when converted into foreign currencies. To counteract this, these countries may target higher dollar prices of oil to maintain real revenue, budget levels, and purchasing power in world markets. Dollar depreciation also reduces the returns on dollar-denominated assets, when measured in foreign currencies, which may increase the attractiveness of foreign investing in commodities like oil. Commodity investment may also become more attractive to U.S. investors as a hedge against inflation if dollar depreciation tends to increase expectations of greater inflation.

Finally, a rise in oil prices also expands the U.S. trade imbalance, which can put additional downward pressures on the dollar, again yielding a negative correlation albeit with causation going in the reverse direction. Despite these many possible explanations, the actual correlation between oil prices and exchange rates has not been stable over time, and was close to zero for more than half of the last decade.

Extreme and irregular events

Zhang et al. (2009) define extreme events as events which have serious impacts on crude oil markets lasting several years. Examples are Gulf War of 1990-1991 and recent global economic crisis. Irregular events are defined as events which have important but short-term effects on crude oil prices. Selected geopolitical events contributing into oil price development are captured in Figure 34. It can be seen from the Figure and it was also confirmed by many authors that extreme and irregular events can be driving forces of crude oil price fluctuations in both long-term and short-term.

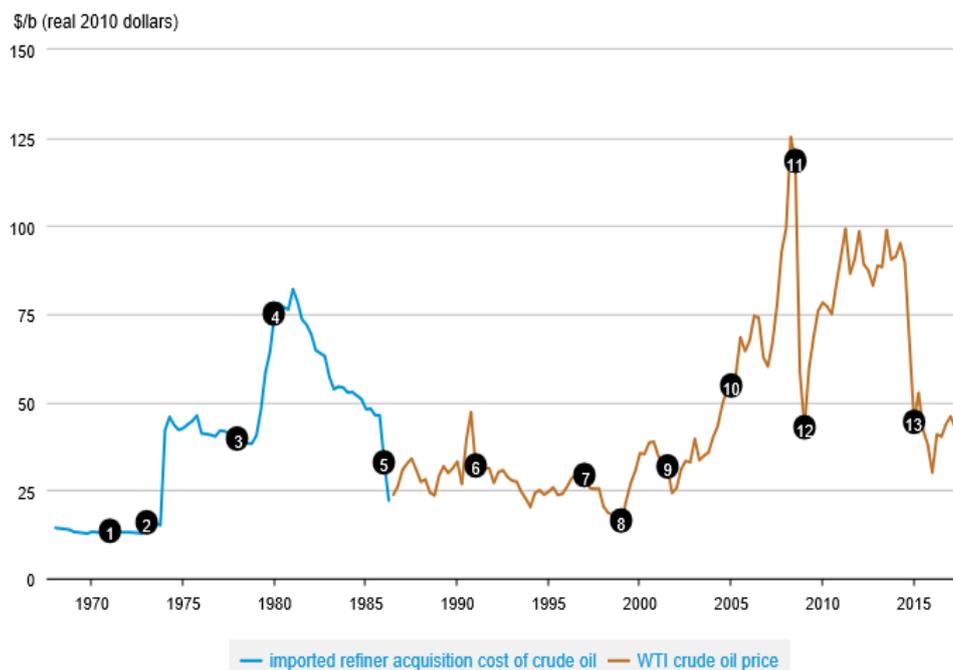
Much of the world's crude oil is located in regions that have been prone historically to political upheaval, or have had their oil production disrupted due to political events. Several major oil price shocks have occurred at the same time as supply disruptions triggered by political events, most notably the Arab Oil Embargo in 1973-74, the Iranian revolution and Iran-Iraq war in the late 1970s and early 1980s, and Persian Gulf War in 1990. More recently, disruptions to supply (or curbs on potential development of resources) from political events have been seen in Nigeria, Venezuela, Iraq, Iran, and Libya (EIA 2017).

Weather can also play a significant role in oil supply. Hurricanes in 2005, for example, shut down oil and natural gas production as well as refineries. As a result, petroleum product prices increased sharply as supplies to the market dropped. Severely cold weather can strain product markets as producers attempt to supply enough of the product, such as heating oil, to consumers in a short amount of time, resulting in higher prices. Other events such as refinery outages or pipeline problems can restrict the flow of oil and products, driving up prices.

However, the influence of these types of factors on oil prices tends to be relatively short lived. Once the problem subsides and oil and product flows return to normal, prices usually return to previous levels (EIA 2017).

Zhang et al. (2009) also claim that the amount of extreme and irregular events have been bigger in recent years of high crude oil price volatility. The correlation between price and geopolitical and economic events is presented by Figure 3.

Crude oil prices and key geopolitical and economic events



Source: U.S. Energy Information Administration, Thomson Reuters

Updated: Quarterly | Last Updated: 06/30/2017

- | | |
|---------------------------------------|--------------------------------------------|
| 1: US spare capacity exhausted | 8: OPEC cuts production targets 1.7 mmbpd |
| 2: Arab Oil Embargo | 9: 9-11 attacks |
| 3: Iranian Revolution | 10: Low spare capacity |
| 4: Iran-Iraq War | 11: Global financial collapse |
| 5: Saudis abandon swing producer role | 12: OPEC cuts production targets 4.2 mmbpd |
| 6: Iraq invades Kuwait | 13: OPEC production quota unchanged |
| 7: Asian financial crisis | |

Figure 3 Crude oil prices and special events

Source: EIA

Conclusion

In summary we can say that the factors behind oil price changes are very complex, they are economic and political in nature. The U.S. Energy Information Administration publishes weekly, monthly, and annual inventory statistics for crude oil and its related products. Industrialized countries that belong to the Organization of Economic Cooperation and Development (OECD) countries usually publish inventory statistics on a regular basis. However, inventory data for other countries-including key developing countries with rapidly growing oil consumption as well as major producing countries-is sometimes available on a less timely basis, or in some cases, not available at all. In addition, oil is often stored on ships at sea. The lack of complete information on inventories creates additional uncertainty in oil markets, which can also influence oil prices. Given the past history of oil supply disruptions emanating from political events, market participants are always assessing the possibility of future disruptions and their potential impacts. In addition to the size and duration of a potential disruption, they also consider the availability of crude stocks and the ability of other producers to offset a potential supply loss.

Our paper had some volume limitations and, of course, it is impossible to examine all the relevant pieces of literature on the topic. So, a synthesis of some most important works has been carried out so far. It has been concluded that the extent of oil price changes greatly depends on how countries adjust their fiscal and monetary policies in order to better manage either the increasing or the decreasing prices of oil.

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THE SOCIO-ECONOMIC IMPACT OF POLISH CASINO EXPANSION, 2010-2014

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Abstract: This paper examines the socio-economic impacts of the casino expansion in Poland that resulted from the passage of the 2009 Polish Gaming Law. The econometric strategy exploits discontinuities in the number of allowable casinos in each market to identify the causal impact of casinos on economic variables. Panel regression and matching results show that casinos have had a positive impact on local wages, but have not had an impact on other socio-economic variables, including unemployment, housing starts, and new business formation.

Keywords: gambling, casinos, economic development

Introduction

In 2009, Poland passed a major gambling reform law that led to significant expansion in the casino industry. Between 2009 and 2014, the industry roughly doubled in size, going from 27 to 51 casinos and from around 1.4 billion PLN to just over 3.1 billion PLN in casino winnings. This paper reviews the Polish casino industry, which remains severely understudied. It also takes advantage of idiosyncrasies in the Polish casino law to provide causal estimates of the impact of casinos on a number of outcome variables. Results indicate that casinos have had a significant and positive impact on local wages, but have not affected other variables such as new housing, new business formation or unemployment.

Casino gambling came to the Baltic seaside town of Sopot, Poland in 1920, and while the Zoppoter Kasino and the Grand Casino hotel were two of the most internationally renowned casinos of the interwar period, the industry did not spread for many decades. However, the rapid global growth in casinos beginning in the 1970's and 1980's also spread to Poland and casino gambling is now possible in over 30 Polish cities. Recent years have seen significant expansion in the number and location of casinos. When the 2009 Polish Gambling Law (Ustawa z dnia 19 listopada 2009 r. , 2009) took effect on January 1, 2010, there were 27 casinos in existence, but the new law increased the number of available licenses to 52. Since mid-2013, the total number in operation has been 49 or higher. The law also phased out small scale gaming salons that had been common throughout Poland and limited the number of websites that were legally allowed to accept bets to four. Polish casinos tend to be small and urban, with about 30 slot machines and five or six table games. This contrasts with, for example, the typical American commercial casino which averages over 1000 gaming positions. About three-fourths of the casinos in Poland are in cities with over 150,000 people.

The spatial distribution of casinos owes itself to the peculiarities of the Polish Gambling Law. For towns less than 250,000 residents, the law allows for exactly one casino but no more; for towns with 250,000-500,000 residents, up to two casinos, and so on. Additionally, the number of casinos per voivodeship is limited to one for each 650,000 residents. This arrangement essentially guarantees that casinos will be widely dispersed geographically. The discrete nature of the limits on casino locations also provide an opportunity for an interesting identification strategy for empirical estimation. These break points affect casino supply, but should not have any particular effect on other socioeconomic outcome variables. At least in the neighborhood of the break points, therefore, the supply of casino gambling may be considered plausibly exogenously determined.

Literature Review

Academic research on the economic impacts of European casinos in general and Polish casinos in particular is scarce. Hybka (2015) is an exception. A noteworthy survey of casino literature was conducted by the Canadian Consortium of Gaming Research (Williams, et al., 2011), which found that measuring the socioeconomic impacts of casino gambling is complex, involving subjective judgments and significant measurement difficulties. This is due in large part to the heterogeneous nature of casinos and local industry structures (Wenz, 2014a)

To evaluate the complex interactions between casinos and their neighborhoods, this paper broadly follows Wenz (2014b) which builds on the Rosen-Roback (Rosen 1974, Roback 1982) model for evaluating the impact of amenities on local quality of life. This model has been extended to consider the business environment as well (Gabriel & Rosenthal, 2004). The intuition is as follows. If casinos, on net, improve the quality of life for households, the local community will become relatively more desirable and increase both the demand for residential land and the supply of labor, leading to both increasing rents and falling wages. If casinos simply crowd out existing entertainment options and increase crime, demand for residential space will fall and workers will demand compensating differentials to work in the area. Firms prefer to pay lower wages and rents but will pay more to locate in productive places. If casinos complement other businesses, perhaps by increasing tourism or creating entertainment districts, both wages and rents will rise; if casinos cannibalize existing businesses or reduce productivity, firms will leave and wages and rents will fall.

This paper will examine how Polish casinos impact local employment, wages, new residential construction and new business formation to infer their impact on local household quality of life and quality of the business environment.

Data and Descriptive Statistics

This analysis focuses on economic outcomes in towns with casinos between 2010 and 2014. Reliable data on the Polish casino industry prior to the passage of the 2009 Gambling Law is difficult to come by. Casinos are defined as entities operating under a license issued according to the Gambling Law. The casino license permits the holder to offer certain kinds of gambling games that are otherwise prohibited, including high-stakes poker, roulette, craps, and slots. Using documentation from the Polish Ministry of Finance, a dataset identifying the locations and date of issue for all licensed casinos as of April 30, 2016 was constructed. All currently operating casinos have a license that originated in 2010 or later, though many casinos existed prior to 2010. Since 2010, the Ministry has also provided periodic information on the expiration dates of casino licenses that allowed for the identification of many casinos that began operation prior to 2009. This allowed for the identification of casinos which closed prior to April 30, 2016. It was not always possible to identify an exact opening and closing date for each location, so the license issue or expiration date was used when necessary. A casino was considered to be open if it was open at all in a location during a calendar year.

Table 1 provides descriptive statistics on Polish casinos. As of 2014, Polish casinos average about 7 table games and 53 slot machines. As a comparison, it is not unusual for American casinos to have over 1000 electronic gaming devices and 50-100 tables. It is unlikely, therefore, that there is considerable excess supply in any market. Polish casino games are, however, relatively productive in terms of generating casino winnings, also known as adjusted gross revenues (AGR), and providing tax revenues.

Casinos exist in each of Poland's sixteen voivodeships. The law is written so that a voivodeship can have one casino for each 650,000 whole residents and a town (gmina) can have one casino, plus one casino for each 250,000 whole residents. This leads to a wide spatial distribution of gambling throughout Poland.

Table 1. Casino count, revenues and taxes, 2009-2014

Year	Casinos	Cylindrical Games	Card Games	Slot Machines	Casino Revenues (000s PLN)	Casino Taxes (000s PLN)
2009	27	109	172	699	1 415 287	131 605
2010	33	118	133	705	1 260 292	127 632
2011	34	99	156	760	1 293 574	129 461
2012	45	109	168	1423	1 843 646	172 244
2013	51	133	208	2285	2 523 533	225 681
2014	50	149	221	2635	3 031 159	244 821

Source: Polish Ministry of Finance, Informacja o realizacji ustawy o grach hazardowych, various years.

The geographic unit of analysis is the powiat, which corresponds roughly with towns or cities, but may contain unincorporated areas outside of central cities. There are a total of 379 powiats in Poland, which do not overlap. The data source for all demographic and economic data is the Bank Danych Lokalnych and Atlas Regionow of the Polish Statistical Office (Poland Central Statistical Office,

2016). Demographic data includes population, population density (residents per km²), female-to-male ratio, and percentage of postsecondary graduates. Postsecondary graduates is only available for the year 2012; all others are recorded annually. Economic outcome variables include the average monthly salary, unemployment rate, number of completed residential dwellings and the number of new business entities formed. Summary statistics are provided in Table 2.

Casinos tend to be located in larger, more dense cities. They also tend to be wealthier, with lower unemployment and higher rates of new residential construction and business formation. There is a higher proportion of females and college or trade school graduates. Salaries have risen more quickly in casino powiats, and while new housing and new business entities have fallen overall, they have fallen more slowly in casino regions. Unemployment fell more rapidly in Poland overall, relative to casino regions, but from a much higher initial level.

Econometric Analysis

First, a panel regression will be used to examine the contemporaneous effect of casino gambling on the various outcome variables during the period 2010-2014. A second approach that matches casino powiats with non-casino powiats of similar population size but which face a supply constraint due to the limits placed

Table2: Descriptive Statistics for Casino and non-Casino powiats.

Variable Means	Casino Powiats	All Powiats
Population Average Per Powiat	296,468 (330343)	101,007 (117605)
Population Density	1713.81 (667.17)	376.46 (670.65)
Percent Postsecondary Graduates (2011)	31.57% (2.15)	26.17% (4.47)
Female-to-Male Index (1:1 = 100)	112.19 (3.61)	104.62 (3.84)
Monthly Salary (Polish zloty)	3934.4 (805.07)	3226.01 (455.14)
Unemployment Rate	8.61% (3.77)	14.11% (5.69)
New Dwellings Completed (per 10000 inhabitants)	42.97 (25.92)	29.28 (18.05)
New Business Entities (per 10000 inhabitants)	174.84 (48.19)	127.89 (35.37)
Monthly Salary (Polish zloty) Change, 2010 to 2014	578.18 (163.02)	505.11 (124.32)
Unemployment Rate Change, 2010 to 2014	-0.49% (0.85)	-1.31% (1.83)
New Dwellings Completed (per 10000 inhabitants) Change, 2010 to 2014	4.77 (14.72)	0.48 (13.08)
New Business Entities (per 10000 inhabitants) Change, 2010 to 2014	-12.38 (21.82)	-17.41 (15.89)
N	31	379

Source: Poland Central Statistic Office, Bank Danych Localnych. Accessed online.

on the number of casinos allowable under the law. The base panel regression is specified as follows, with i and t indexing powiat and year, respectively:

$$Y_{it} = b_0 + b_1 \text{Casino}_{it} + b_2 \text{Population}_{it} + b_3 \text{Density}_{it} + b_4 \text{GenderRatio}_{it} + b_5 \text{Education}_{2011} + \varepsilon_{it} \quad (1)$$

Y is a vector of outcome variables including average monthly gross wages, unemployment rate, new completed housing developments per and new businesses formations. The casino variable indexes casinos open at any time during the year. Population density is measured in terms of workers per square kilometer. New housing developments are per 10,000 population and new business developments are per 10,000 working age population.

Results are shown in Table 3. Population density is associated with higher salaries, lower unemployment, and somewhat lower rates of business and dwelling formation. Notably, higher populations are not associated with higher salaries, but

Table 3. Panel regression results

Dependent Variable:	lnSalary	Unemp. Rate	NewBusinesses	NewDwellings
Intercept	7.507139 *** (.124)	54.42073 *** (5.683)	-220.2655 *** (34.789)	-20.93024 (19.120)
Casino	0.079163 *** (0.011)	0.753428 (0.508)	3.1464503 (3.108)	-3.611744 ** (1.708)
Population	-7.4E-09 (0.000)	-1E-05 (0.000)	6.892E-05 *** (0.000)	6.591E-05 *** (0.000)
Density	1.12E-05 *** (0.000)	-0.00094 *** (0.000)	-0.001822 *** (0.002)	-0.003129 *** (0.001)
Education	0.465944 *** (0.081)	-4.04497 (3.731)	133.71885 *** (22.841)	29.607559 ** (12.554)
GenderRatio	0.003356 (0.001)	-0.34848 (0.059)	2.9577874 *** (0.362)	0.3620186 * (0.199)
N	1895	1895	1895	1895
R-Squared	0.216	0.167	0.271	0.107

*, **, ***: p-values > .9, .95, .99 respectively. Standard errors in parentheses.

Source: Own work

Perhaps the population effect is being captured by density, rather than raw population. Locations with higher proportions of graduates earn higher salaries, have lower unemployment and start more new businesses and dwellings. Casinos are associated with higher salaries and lower rates of household formation. This would be consistent with a disamenity effect, where firms need to work harder to retain and recruit workers in areas with casinos. This is not necessarily a causal link. Casinos do not have a statistically significant effect on the local unemployment rate or the rate of new business formation. This suggests that they are neither creating nor crowding out new economic development.

The second econometric approach involves matching casino powiats with similarly sized powiats that have had their number of casinos restricted by the population limits included in the 2009 Gambling Law and may potentially allow for causal inference. The concern is that casinos locate in a non-random way that is correlated with the outcome variable. For matching to be a valid econometric approach, there needs to be a sufficient degree of overlapping support and an identifiably exogenous determinant of supply (Wenz 2008). That is, there needs to be a suitable match from the untreated (non-casino) group for each element in the treated group, and the treatment needs to be determined at least in part by some variable unrelated to the outcome variables. To create the counterfactual group, casino powiats with more than 250,000 residents were matched with the closest-sized casino powiat below each threshold. Casino powiats below the 250,000 person threshold were matched with the closest unused non-casino powiat. Four casino powiats were dropped for lack of overlapping support, including Warsaw, Wroclaw, Szczecin and Lublin. Bialystok was included as a match for Katowice despite being eligible for the same number of casinos based on powiat population. Bialystok is constrained at the voivodeship level and has only one casino despite being eligible for two based on its own population. If Bialystok is excluded, there is no suitable match for Katowice. A similar situation holds for powiat poznancki, the match for Bydgoszcz. To estimate the effect of casinos on outcome variables, a simple difference-in-differences is constructed. The model is as follows:

$$\Delta Y_i = (X_{i,2014} - X_{i,2010}) - (X_{i',2014} - X_{i',2010}) \quad (2)$$

Here, Y_i represents the effect of the treatment (a casino) on the outcome variable in powiat i and i' represents the match. This procedure is done twice, once for all casino powiats and once for powiats which saw an increase in the number of casinos between 2010 and 2014. The mean treatment effects and standard deviations of the treatment effects are given in Table 4.

Changes in dwellings, business entities and unemployment are all small relative to their variance, but increases in monthly salaries are large and statistically significant, especially when the analysis is focused on only powiats which added casino gambling during the period 2010-2014. Each casino is associated with a 500 zł increase in monthly wages.

Table 4. Matched Treatment Effects

	All Casino Powiats Mean Treatment Effect	Powiats with New Casinos Mean Treatment Effect
New Dwellings	2.62 (19.91)	-2.25 (16.07)
New Entities	-7.78 (19.89)	-15.56 (11.31)
Monthly Salary	286.61 (275.71)	501.62 *** (111.65)
ln(Monthly Salary)	0.08 (0.09)	0.16 (0.04)
Unemployment	-0.30 (2.03)	-0.98 (1.95)

*, **, ***: p-values > .9, .95, .99 respectively. Standard errors in parentheses.

Source: Own work

Conclusion and Discussion

This paper examined the impact of casinos on socioeconomic outcomes in Poland during the period 2010-2014 following the passage of the 2009 Polish Gambling Law. Panel regression analysis and matching methods provide some evidence that casinos provided a boost to local wages in areas with casinos and areas that added gambling during the sample period. No evidence is found for a casino impact on other outcomes including new dwellings, new business formation or unemployment rates. The matching approach exploits plausibly exogenous variation in the supply of gambling to establish a causal relationship between gambling and the outcome measures. The results here suggest that casinos may in fact cause the observed change in outcomes, rather than reflect endogenous selection. To further establish a causal link, a regression discontinuity model may be constructed. In the future, this analysis could be extended to consider spatial interactions and a more carefully constructed series of lagged impacts in the presence of casinos.

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THE IMPACT OF THE DEVELOPMENT OF NATURAL AND ORGANIC COSMETICS ON SUPPLY CHAIN PROCESSES AND SUPPLIER BASE ARCHITECTURE

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Abstract: Despite the fact that the cosmetics industry is expanding rapidly today, it is still a rare subject for management studies. The aim of this article is to identify the impact of the global trend of the increase of natural and organic cosmetics on supply chain processes and supplier base architecture. The assessment of supply chain reconfiguration was carried out using SCOR and GSCF models. The research results show that the expected standards of cosmetics promote the development of sustainable supply chains and that, due to the modifications in the composition of cosmetics, both farms and wild areas are becoming increasingly important. The author highlights that these changes have resulted in the challenge of ensuring the availability of natural and organic raw materials. Due to the increasing number of natural disasters, formation of global supply chains of new cosmetics and newly-implemented regulations on biodiversity, this may become increasingly difficult. The paper is a result of the project "Flexibility in relationships with suppliers in terms of supplier-purchaser models of cooperation on product development in the B2B market", no. 2016/21/B/HS4/00665, financed by the National Science Centre (NCN) in Poland.

Keywords: natural and organic cosmetics, supplier base, supply chain reconfiguration

Introduction

The cosmetics industry is a science-driven industry (Risk & Policy Analysts Ltd. 2016, p. 5), constantly developing and introducing a number of product innovations. According to Euromonitor International, in 2009, patents for cosmetics accounted for about 10% of all patents granted in the EU (Cosmetics Europe 2010, p. 24). Most large cosmetics manufacturing companies in Europe spend between 1.5% and 4.5% of their annual turnover (sales) on R&D of products (Risk & Policy Analysts Ltd., p. 26). The cosmetics industry is rapidly changing as a result of strong global trends, one of which is the fashion for organic components (Czerniak, Sipiński 2017, p. 22). Along with its development, various European organizations offering certification of natural and organic cosmetics have begun to appear in Europe: BDIH (Germany), Cosmébio (France), ECOCERT (France), ICEA (Italy), Soil Association (United Kingdom), NATRUE (Belgium) (Newerli-Guz 2012). They have jointly (COSMOS-standard Association Internationale Sans But Lucratif) created the European Cosmetic Organic Standard, which integrates previous national regulations (COSMOS-standard 2013). The association also issued guidelines on interpreting the technical points and criteria of the COSMOS-standard (COSMOS-standard Technical Guide 2017) and a guide on how to satisfy the minimum requirements for labelling products (COSMOS-standard Labelling Guide 2017).

Recently, the International Organization for Standardization issued global guidelines on definitions for natural and organic ingredients (ISO 16128-1:2016) and global guidelines on the criteria for natural and organic ingredients and products (ISO 16128-2:2017). In Europe, the safety of cosmetics is governed by the Regulation (EC) No. 1223/2009 of The European Parliament and of The Council on Cosmetics. There is only one harmonized standard covering good manufacturing practices of cosmetics (EN ISO 22716:2007). Nevertheless, there is still no legal definition of natural, organic or eco-cosmetics.

The standards for the cosmetic industry provide requirements on the composition of natural and organic cosmetics and the requirements for performing particular value adding processes.

The aim of this article is to identify the impact of the global trend of developing natural and organic cosmetics on the supply chain processes and supplier base architecture. In this paper, the processes that are taken into account in the identification of these changes are the basic processes pointed to in the Supply Chain Operations Reference model (SCOR). In addition, the supplier base architecture is understood as an upside supply chain network structure as understood from the Global Supply Chain Forum model (GSCF).

The paper consists of several sections. In the first, it presents the specificity of the development process of cosmetic products. The methodology part briefly presents the research assumptions, whereas the next sections present the qualitative assessment results discussion and conclusion.

Cosmetic product development – theory background

A cosmetic product means “any substance or mixture intended to be placed in contact with the external parts of the human body (epidermis, hair system, nails, lips and external genital organs) or with the teeth and the mucous membranes of the oral cavity with a view exclusively or mainly to cleaning them, perfuming them, changing their appearance, protecting them, keeping them in good condition or correcting body odours” (1223/2009). Various groups of cosmetic products can be distinguished, e.g. cosmetics for the body and face, cosmetics for children, cosmetics for sun care (Czerniak, Sipiński 2017, p. 7).

The cosmetics industry is developing fast. For example, in 2015 year, the global cosmetics market grew by 3.9% (EY 2016, p. 43). Research and the introduction of a new cosmetic to the market can take more than 5 years (Risk & Policy Analysts Ltd., p. 26). According to the Dr Irena Eris company, a product lifecycle in this industry is getting shorter, and for some products it is about two years (4pm.pl. 2013). Cosmetics are products which are not particularly complex (consisting of about 20-30 constituents) and new developments in this field are mainly connected to specific ingredients (Figure 1).

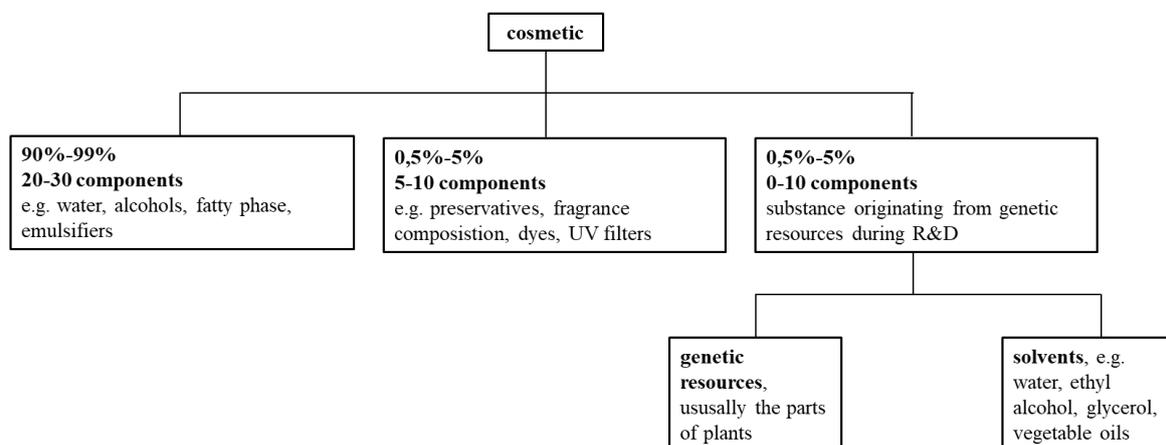


Figure 1. Simplified Bill of Materials (BOM) of a care cosmetic

Source: own study based on: Sikora (2008), Tumanowicz (2013, p. 8)

Cosmetic components can be divided into chemical substances and natural substances which are genetic resources or their derivatives. More and more companies replace commonly used chemicals and synthetic ingredients with organic inputs and it is observed that natural cosmetics have expanded in many segments of the cosmetics industry (EY 2016, p. 43). The idea of creating preparations based on purely natural ingredients arose in 1996, when the European Scientific Cooperative on Phytotherapy at the EU Council Public Health Committee defined a natural cosmetic as “product aiming to beautify and provide skin care using natural ingredients, skin and environment friendly, health conducive, body self-regulation supporting and helping long-term natural beauty preservation and balanced development of body and soul” (Sulek et al, 2015). The R&D of a new substance originating from genetic resources is a four-stage and long-term process (Figure 2), involving many links from the supply chain.

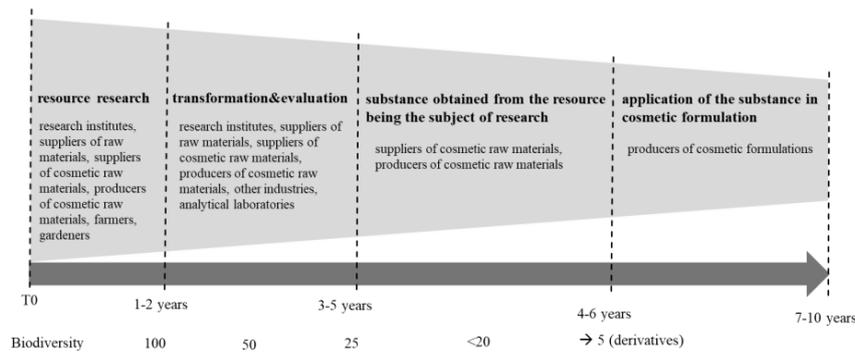


Figure 2. R&D stages and organizations involved in the development of a new ingredient of cosmetic product

Source: Tumanowicz (2013, p. 11-12)

The first phase includes both sampling and recognition of interest in the resource. The next involves laboratory tests during which the resource is processed, transformed and evaluated in terms of its toxicity and the possibilities of its use in industry (not only cosmetics). In the next phase, the target substance is separated from the resource and detailed research work is conducted, e.g. raw material synthesis, its industrialization and technical documentation preparation. At the concluding stage, the final component of the cosmetic is developed, which consists of only around 5% of the original resource (Tumanowicz 2013, p. 11-12).

Methodology

The paper is a result of the project “Flexibility in relationships with suppliers in terms of supplier-purchaser models of cooperation on product development in the B2B market”, no. 2016/21/B/HS4/00665, financed by the National Science Centre (NCN) in Poland. The main scientific objective of this project is to identify the dependencies between flexibility in relationships with suppliers and models (types) of supplier-purchaser cooperation on product development. As part of the qualitative research, the author decided to identify product development processes for various industries. Some results regarding a few selected industries have already been presented (Wieteska 2017).

This paper concerns the cosmetics industry. The inspiration to write this article was a visit to the 21st BEAUTY FORUM Fair in Poland, where the author had the opportunity to conduct several interesting conversations with Polish manufacturers who had decided to offer certified products.

In the research, the author decided to confront the issue of supply chain redesign within the observed green trend in the cosmetics industry. For this purpose, two models of supply chain management were used. The SCOR model provided the classification of the main supply chain processes: plan, supply, make, deliver, enable and return (Supply Chain Council 2012, p. 6). The GSCF model allowed the formulation of conclusions about supplier base reconfiguration, since it covers the structure of such links as; the focal company, its first, second tier and initial suppliers (Lambert, Cooper 2000). The assessment of supplier base redesign was conducted in terms of the type, number, localization of suppliers and distance between the supplier tiers.

The impact of developments in natural and organic cosmetics on supply chain processes – research results

Today's standards in the cosmetic industry vary in their restrictiveness and address different sectors. However, they all impose similar requirements regarding the supply chain - concerning not only the composition of cosmetics, but also the manufacturing and logistic processes, e.g. storage, packing, transportation. The table 1 presents the examples of requirements for each supply chain process with the use of SCOR model. All standards provide clear information on the substances that are allowed or not. On the one hand, they regulate the origin and processing of ingredients, while on the other, they provide information on the composition of final products, including the issue of labelling. Standards in cosmetic determine production and distribution processes, emphasising the need to reduce their negative impact on the natural environment through minimizing energy consumption, harmful emissions and waste.

Table 1. The examples of cosmetic standards' requirements with regard to SCOR supply chain processes

SCOR process	The example of requirement	Standard
Plan	Range of product is a category of products, possessing common or similar characteristics, and which can be grouped together for planning and/or marketing purposes (definition)	ECOCERT
Supply	It is forbidden to use plants or plant materials that have been genetically modified and primary raw materials extracted from living or slaughtered animals	COSMOS
Make	Environmentally-friendly production methods	BDIH
Deliver	If at all technically feasible and available, recyclable packaging materials are to be used	NATRUE
Enable	The traceability of ingredients up to the finished product and finished products up to consumers must be rigorously implemented	ECOCERT
Return	As part of the environmental management plan, a waste management plan must be put in place which addresses manufacturing waste, including gaseous, liquid and solid waste	COSMOS

Source: BDIH Guidelines for Certified Natural Cosmetics (2012, p.1), COSMOS-standard (2013, p. 9), ECOCERT standard (2012, p.13, 25), NATRUE Label (2017, p. 7)

The standards also promote the eco-design of cosmetics, recommending biodegradable packaging and avoiding substances (e.g. plastic microbeads) that are dangerous for the marine environment in wash-off cosmetics (Cosmetics Europe 2017, p. 42). The European standard COSMOS defines the critical roles for business practice:

- “promoting the use of products from organic agriculture, and respecting biodiversity;
- using natural resources responsibly, and respecting the environment;
- using processing and manufacturing that are clean and respectful of human health and the environment;
- integrating and developing the concept of Green Chemistry” (COSMOS-standard, p. 4).

The impact of developments in natural and organic cosmetics on supplier base architecture – research results

Supply chains in cosmetics consist of the following links: suppliers of materials and services that are the inputs to the production process, manufacturers, distributors and wholesalers, retailers, beauty services and end users. The companies involved operate mainly in such sectors as chemical, rubber, plastic and paper products as well as logistics and waste services (Lipiński 2017, p. 20).

The development of products that meet the requirements of cosmetic standards is strongly connected with ensuring a specific composition (Table 2). The product changes relate to all three groups of components (Figure 1) and especially concern the replacement of chemical substances with natural ones (in a specified amount that must be obtained from certified farms or suppliers).

Table 2. The percentage share of natural and organic ingredients in products that are certified by ECOCERT

Ingredients	% of organic plant ingredients and organic ingredients from plant origin on the total of ingredients validated as plant	% of certified organic ingredients on the total of the ingredients making up the finished product
Type of cosmetic		
natural	minimum 50%	minimum 5%
natural and organic	minimum 95%	minimum 10%

Source: Own study based on ECOCERT standard (2012, p. 20-21)

Changes in the design of products mean the increased need for cooperation with the suppliers of natural and organic materials and certified ingredients. Referring to the GSCF model, it can be noted that such eco-improvements lead to reconfiguration of the supply chain, not only for first but also initial tier suppliers. A more detailed investigation of product changes leads to many interesting observations. The following can be made with reference to first/second tier suppliers:

- an increased number of suppliers (manufacturers or distributors) of natural and organic materials;
- a decreased number of suppliers of chemical materials;
- an elimination of some suppliers (e.g. suppliers of parabens, SLS, SLES).

The changes among first tier suppliers are directly related to the changes among initial tier suppliers. The following modifications can be identified in supply chains of natural and organic cosmetics:

- an increased number of farms and certified farms;
- an increased number of genetic resources obtained from plants that are under protection and come from wild areas;
- an increased number of initial suppliers located far from production sites due to using novel and attractive cosmetic components. For example, Skalińska-Najdenow (2001) refers to vegetable oils from America, Africa and Australia.

Discussion and Conclusion

Developments in natural and organic cosmetics are not only focussed on consumer satisfaction, but also the whole product lifecycle. The observed fashion for the use of natural and organic components forces companies to make changes in the composition of cosmetics. This triggers modifications not only in the portfolio, but also in design of upper supply chains of the new, improved products.

The impact of the development of natural and organic cosmetics is undoubtedly significant, both for the supply chain processes and supplier base architecture. The introduced cosmetic standards stimulate sustainable production, distribution and consumption. This allows the inclusion of certified cosmetics in the group of green products (Durif, Boivin and Julien, 2010).

However, when launching these products, specific threats and challenges for the redesigned supply chains appear, which need further research. Primary among these is the fact that the supply chains of natural and organic cosmetics have become in many cases global. This may cause an increase in the distance between supply chain links and consequently longer lead times. Along with these changes, other increased risks can be identified: an operational risk (damage, pilferage) for supplies (or components) during the extended transportation processes as well as a risk coming from the macro environment (e.g. political, economic, social) for supply chain links located in different countries. Longer transport processes require larger stocks, what is also linked with additional warehousing costs and other risks e.g. the risk of commodity obsolescence or deterioration.

Furthermore, appropriate certified farms are becoming key links of the supply chains of natural and organic cosmetics. An increase in dependence on this type of entity could escalate the supply chain's vulnerability in the light of climate change and raise the number of natural disasters.

The location of farms also determines the supply chain challenges related to the regulations on biological diversity and access to plants under protection. The industry standards stress ensuring traceability, which must be treated as another challenge, especially in terms of managing global supply chains. In addition, in terms of distant suppliers, especially those located in developing countries, the issue of transparency has gained greater importance.

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GREEN CONSUMER: THE ATTITUDE-BEHAVIOR GAP TOWARDS ENVIRONMENTALLY FRIENDLY PRODUCTS

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Abstract: Despite the growing environmental awareness of consumers, the share of environmentally friendly products in the market is still small. A positive attitude to green products does not translate into green purchases. In the Polish market there is a clear green attitude-behaviour gap. The reasons for this gap have not been sufficiently researched yet. The aim of the research is to identify the causes of attitude-behaviour gap in the market of environmentally friendly products in Poland. To achieve the goal, desk research and surveys were applied. The primary research was conducted at the turn of 2015 and 2016 using the direct questionnaire method among 390 adult consumers in south-eastern and southern Poland. The most common explanation of this gap is the lack of consumer confidence in green products and their high prices. Other important barriers to purchasing eco-friendly products are: value conflict, limited availability of green products, asymmetry of information, and routinely low commitment in the case of a lot of products purchased. The research shows that green products are well evaluated by consumers, although the knowledge about them is general and partial. Only 21.1% of respondents indicate knowledge of the production process, certification and control of environmentally friendly products. A large group of surveyed consumers show (43.1%) a willingness to pay higher prices for environmentally friendly products. However, only one third of respondents (32.1%) declare trust in such products.

Keywords: attitude-behaviour gap, eco-labels, environmentally friendly products, green consumer, green marketing

Introduction

The market for environmentally friendly products is growing dynamically in the world, but the share of green products in the market is still small. Only a very small group of consumers buy green products, although a large group declares a positive attitude to the environment and environmentally friendly products (Bartels, Hoogendam 2011). Consumers express their concern about the future of the planet and the cleanliness of the environment, but this does not necessarily mean a green purchase (Fura 2017, Young *et al.* 2010, Hughner *et al.* 2007). There is a discrepancy between what consumers say and express themselves through their values and attitudes and what they actually do (Bray, Johns, Kilburn 2011). The pro-environmental attitudes are in line with accepted social norms, but in reality they are not reflected in individual consumer behavior (Carrington, Neville, Whitwell 2010). Research indicates a clear incoherence between attitudes and real behavior towards green consumption which is referred to as green purchasing inconsistency, green attitude-behavior gap or values-action gap.

The reasons for this gap in behavior have not been sufficiently researched yet. There are significant studies on ecological awareness and determinants of ecological behavior of consumers. However, the recognition of factors affecting the green attitude-behavior gap of consumers remains limited. Ecologically conscious consumers do not always make green purchases, which in turn makes it difficult for companies to implement green marketing strategies. It is necessary to examine how environmental attitudes affect consumers' behavior towards green products and what is the importance of price and availability of these products and social influences, trust for green claims. These are the factors that can lead to discrepancies between consumer attitudes and consumer behavior.

This study attempts to identify the causes of this inconsistency and suggests some steps to address these issues to encourage consumers to buy environmentally friendly products. The study is a valuable contribution to research and a discussion on consumer behavior in the market for green products. It presents a comprehensive approach to the green attitude-behavior gap. Producers give tips on how to create green marketing strategies. It can help other groups of stakeholders, for instance, politicians, ecological movements in solving ecological problems and improving the quality of life of present and future generations.

Methodology

The aim of the research is to identify the causes of attitude-behavior gap in the market of environmentally friendly products in Poland. To achieve the goal, the desk research and surveys were applied. The survey was conducted from December 1, 2015 to January 31, 2016 using the direct questionnaire method among 390 adult consumers in south-eastern and southern Poland (*Table 1*). The selection of the sample was non-random.

Table 1: The characteristics of sample

Demographics	Percent (N:390)
Gender	Female: 56; Male: 44
Age	18-24: 15; 25 - 29: 21; 30 - 39: 12; 40 - 49: 22; 50-59: 19; 60 and more: 11
Place of living	Village:57; Town below 200 thousand inhabitants: 24; City above 200 thousand inhabitants: 19
Financial situation	Bad: 8; Average: 33; Good: 45; Very good: 14
Education	Primary: 3; Vocational: 26; Mean:34; Higher:37

Source: own research

The 5-point Likert scale was used. The research was carried out at the significance level of $\alpha = 0.05$. The following hypotheses were put forward:

H1: Consumers have a positive reception of environmentally friendly products.

H2: Knowledge of ecological marks, production methods, control and certification of green products and their purchase places is low.

H3: High prices are a barrier to buying environmentally friendly products.

H4: The main reason for abandoning environmentally friendly purchases of products is lack of confidence and skepticism about the environmental activities of producers.

Results of research

Research shows that environmentally friendly products are perceived as products of higher quality, good for health, although at high prices. Consumers intuitively associate the green product more with health than with environmental protection. Over half of the respondents (59.8%) consider certified eco-friendly products as higher quality. Only a small group of respondents (32.3%) consider the impact of the product on the environment when shopping. Regular purchases of green products are declared by 24.4% of respondents. Young et al. (2010) estimate that 30% of consumers are concerned about the environment, but only 5% of them are concerned about real behavior. Even consumers with the highest level of environmental awareness do not always buy green products. Their selection of products depends on both environmental awareness and the assessment of various product characteristics and situational factors (Rokka, Uusitalo 2008). If the purchase of a eco-friendly product is associated with a change of habits, lack of comfort, incurring higher costs and dedication of additional time or acceptance of lower quality, consumers will be willing to avoid it. Otherwise, they would have to give up personal good for higher values. Consumers attach more importance to aspects that are of direct relevance to them than to lofty aims. Gutkowska (2007, p. 82-83) indicates a conflict between recognized values understood as values of an objective nature imposed by social norms and everyday values understood as innate personal inclinations of the human individual. Consumers are looking for products that best meet their needs, and the imperative of responsibility requires them to give up their own benefits and buy environmentally friendly products.

The idea of ecological consumption is becoming more and more common and has such a positive reception that it is not proper not to express its approval and probably that is why the majority of respondents support it and give correct answers (Lewicka-Strzańska 2015, pp. 7-8). An approval for commonly appreciated items and values allows the consumer to maintain a positive image of himself in both his and other people's eyes (Lewicka-Strzańska 2015, pp. 7-8). Śliwak (2001, pp. 224-225) points to a higher level of the need for social approval by altruists. Purchase intentions are a strong predictor of purchasing behavior towards organic products, but stronger in mature markets than in emerging eco-markets (Thøgersen 2009).

Knowledge about the environment and knowledge about green products has a positive relationship with the purchase of environmentally friendly products (Kumar 2012). On the one hand, the respondents consider themselves well informed about the labeling of green products (42.1%). They have requirements for labels and information placed on them. One third of consumers (30.8%) declare that they are carefully familiar with the labels. Although a group (28.5%) complains that the information on the labels is unclear and incomprehensible. On the other hand, research indicates the confusion of consumers under the influence of an excess information about environmental problems (54.6%) and general knowledge of the specificity of green products, labeling, control and certification. Only 21.1% of respondents have knowledge about the production, control and certification of environmentally friendly products. They think that other people do not know eco-labels very well (55.9% - "rather yes", 12.3% - "yes"). Knowledge of EU eco-labels (e.g. Euro Leaf or Euro Flower) is declared by 43.4% of respondents, and the national eco-label by the Polish Center for Testing and Certification) - 35.1% respondents (*Table 2*).

On the one hand, consumers feel insufficiently informed about the environmental and social aspects of green products. On the other one, they feel overwhelmed by the amount of environmental information, sometimes contradictory one. Knowledge in the field of environmental protection and concerns about greenwashing are currently the factors that seriously hinder the process of purchasing environmentally friendly products (Braga Junior *et al.* 2014, p.28). The asymmetry of information between suppliers and recipients of organic products is increasing since they are the goods whose quality consumers are unable to check before or during their consumption and must entrust the manufacturer with their properties or quality (Nestorowicz 2017, p.7) . In the Fietkau model, knowledge does not directly affect behavior, but acts as a modification of attitudes and values (Kollmuss, Agyeman 2002, p.246.).

Ecolabels are an important indication when shopping, guaranteeing the credibility of an environmentally friendly product, but in the Polish market it does not work at a satisfactory level. Almost half of the respondents (48.2%) pay attention to the eco-labeling of products when buying, but only a small group precisely identifies them. A large group of respondents (51%) are in doubt as to whether the label certainly guarantees pro-environmental product features.

The most common explanations of green purchasing inconsistency in literature are a lack of trust and higher prices of environmentally friendly products (Barber *et al.* 2014, Steg *et al.* 2014). A large group of respondents believe that manufacturers use ecological signs for sales and image purposes (61%). Only one third (32.1%) have confidence in certified environmentally friendly products (*Table 2*). This is closely related to knowledge and responsibility and belief in the ability of a green product to meet needs. Confidence significantly affects shopping intentions (Chen, Chang 2012). A significant share in weakening the trust in the green offer is instrumentally used by companies that want to improve their image (Pabian 2014, Witek 2016). It is becoming more and more common that companies compete in terms of information provided, and not the actual environmental performance behind it.

Table 2. Consumer's attitudes and behavior to green products (%)

Responses	Strongly agree	Agree	Neither nor/not answer	Disagree	Strongly disagree
Products marked as eco-label are healthier for me and my family	23.1	51.3	12.6	10.0	3.0
Environmentally friendly products are of higher quality	24.4	35.4	19.5	9.7	8.9
When buying a product I consider the impact on the environment	8.0	24.3	25.7	27.9	14.1
I regularly buy green products	11.3	13.1	43.9	15.9	6.2
I have a high level of knowledge on eco-labelling of green products	11.6	35.1	33.3	10.0	10.0
I read the labels carefully	5.4	25.4	48.0	14.8	6.4
I am lost in the infoglut about environment and its problems	11.5	43.1	34.8	8.0	2.6
I know how to produce and control green products	10.0	11.1	52.5	16.9	8.5

If I do not have the knowledge about the green product I'm inclined to choose a product with an eco-label	12.1	37.9	23.6	16.4	10.0
It seems to me that other people are poorly aware of eco-labels	12.3	56.4	18.0	8.1	5.2
I know the EU ecological signs - Europaen Flower (green products) or Euro Leaf (organic food)	18.0	25.4	21.5	16.9	18.2
I know the ecological mark given by the Polish Center for Testing and Certification	9.0	26.1	39.0	32.0	10.1
When I buy I return to the eco-label	12.3	35.9	30.0	15.9	5.9
I have trust in certified green products	14.1	18.0	45.6	16.9	5.4
Price is an important factor when choosing a product	29.0	49.0	8.0	10.0	2.0
Environmentally friendly products are only for the rich	11.8	12.0	21.3	42.9	12.0
I'm ready to pay a higher price for an eco-labeled product	18.0	25.1	23.1	26.9	7.7

Source: own research

Higher prices of environmentally friendly products constitute a serious purchase barrier (Buder *et al.* 2014, Gleim, Lawson 2014). For Polish consumers, the price of a product is an important factor in the purchase. As many as 78% of consumers declare that they pay attention to it during shopping. Ecological products are seen as not only better quality but also more expensive. On the one hand, more than one fifth of respondents (23.8%) indicate that they are products for the rich. On the other one, almost half of the respondents (43.1%) declare a high propensity to pay higher prices for certified green products. The willingness to pay (WTP) is the key factor for the decision to buy environmentally friendly products (Moser 2015). Polish consumers are eager to pay a premium but a small one. A consumer who will see benefits and has confidence in green products will be willing to pay a higher price.

Another reason for the green attitude-behavior gap is the limited availability of environmentally friendly products and their poor visibility and other shortcomings in marketing, e.g. promotion (Buder *et al.* 2014, Henryks *et al.* 2014).

Discussion and Conclusion

Deficit of consumer knowledge about green, their labeling, certification and control causes a lack of trust and skepticism towards green claims. This results in the lack of acceptance of higher prices for green products. In addition, insufficient marketing causes invisibility of environmentally friendly products. Taking into account the short-term perspective, increasing trust should be based on growing knowledge about products and their potential benefits, their method of production, control, certification and labeling. The perceived value of an environmentally friendly product (and not the price), and hence willingness to pay for green products is an important predictor of purchases (Moser 2016). In addition, effective communication is the key to build trust with consumers (Kuzniar, Witek 2016). Environmentally friendly products can be sold at reduced prices, but temporarily to trigger an incentive to try these products (Bezawada, Pauwels, 2013). Low prices do not take into account both higher production costs and marketing. In the Polish market, the price barrier is created at the retail level, where prices are raised by up to 100-400%, using fashion for health and ecology. There is a large group of consumers who want to follow fashion (Wiażewicz, Zatwarnicka-Madura, 2016). Green products also serve to emphasize the social status and to distinguish themselves in the group socially.

Green products in the Polish market are more and more visible on shelves and are increasingly available, but this is still not sufficient. The problem are errors in merchandising, e.g. joint display of organic products with functional food and food produced by traditional methods and products for vegetarians (so-called "healthy food"). This sales trick can mislead the consumer, especially not too familiar with the characteristics of the green product. Access to specialized stores requires additional effort, which will avoid convenience-oriented shopping by consumers.

In the case of products of frequent purchase, consumer decisions are automatic because they are based on habits or previous experience, based on low commitment and a tendency to avoid cognitive activities. However, in the case of green products there is a need for cognitive effort to buy products based on ethical values (Young *et al.* 2010). Since the subjects are not able to recognize the basic eco-labels, it can be assumed that they do not take or take into account, but to a much lesser extent than the product's environmental impact has been declared. The results of the survey indicate the important role of eco-labeling in communicating the benefits and attributes of green products through unified, reliable and simplified eco-labeling systems. An important step is raising consumer awareness and encouraging an increase of personal responsibility of individual consumers through education, social campaigns, marketing and promotion. In addition, for occasional buyers of organic products, motivation may be additional hedonic benefits (e.g. taste, smell) and then sensory marketing may be an important instrument to encourage further green purchases. However, it should be noted that the main condition to overcome the gap is to build trust in certified green products.

What makes us think is that 76.4% of respondents declared purchases of environmentally friendly products without eco-labels, but from a trusted source. This suggests that consumers express a need for high quality products with a positive impact on the environment and health (especially health motivation is strong in the Polish market), but do not buy certified green products due to higher prices, poor availability and distrust to environmentally friendly products (Witek 2017).

An attempt to clarify the gap is difficult as a lot of different individual, social and situational factors influence the decision-making process of consumers. Weigel (1983) suggests that the examination of personal and situational features would offer a more accurate insight into the relationship between attitudes and green shopping. Surveys receive an image of a socially desirable consumer, not the picture of their real behavior. Understanding the discrepancy between attitudes and consumer behavior in the market for environmentally friendly products requires longer approaches to research and the triangulation of research methods to understand the contexts of consumption. The Theory of Reasoned Action, the Theory of Planned Behavior, Cognitive Dissonance Theory, Reciprocal Deterministic Theory and the Theory of Trying may be helpful in the explanation of the green attitude-behavior gap. These issues should be considered in future studies.

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COMPARISON OF REQUIREMENTS FOR BRAND MANAGERS IN THE CZECH REPUBLIC AND UKRAINE IN KNOWLEDGE MANAGEMENT FRAMEWORK

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Abstract: The aim of the paper is to present the partial results of independent research, the long-term goal of which was to collect and analyze information about the requirements that are imposed on candidates for a position named Brand Manager. An interdisciplinary approach was applied, analyzing this topic, as both research into theoretical bases and analysis of the current state of the subject and tendencies of its development required work in several fields of study. Berelson's content analysis method was used, which made it possible to use the available recruitment advertisements on career portals to gather information on the requirements for brand managers in the Czech Republic and Ukraine. When it comes to the set of requirements for qualification and experience, the frequency is slightly different, personality traits and soft skills also differ, which illustrate the top 10 requirements in both countries. The findings confirmed that employers are looking for brand managers with knowledge, personal dispositions and skills of knowledge workers in Ukraine.

Keywords: brand manager, knowledge worker, personality traits, recruitment, skills

Introduction

Nowadays, brands belong to a pool of resources that generate much of the company market value. These are the brand managers who are responsible for everyday tactical manoeuvres in a number of organizations, and in the overwhelming majority of companies they also manage the building of the assigned brands on a strategic level. There is no doubt that brand managers must have an adequate knowledge and skills and must also possess personality traits and qualities in order to succeed in their job roles. The literary review shows that the topic is characterized by the lack of input data, because brand managers do not do the jobs with given qualification standards in the Czech Republic. According to Kotler and Keller (2012, p. 648), achieving marketing excellence in future will require a new set of skills and competencies, but they leave it to the readers to know what specific personal qualities they can succeed in. In this situation, there is an opportunity to find out in the form of empirical research what requirements the companies, which face hard competition and have to constantly transform their resources into sustainable competitive advantages, place on their brand managers.

The goal of the research project was to check the situation of job offers for brand managers on the labour market. Last year, empirical research has been conducted in Ukraine using the previously tested Berelson's method of content analysis. This makes it possible to compare the requirements for brand managers in both countries. As in the job role entitled "Brand Manager" a role bearer must be able to take decisions in conditions of uncertainty more often than with many other professions intended for knowledge workers, the interest of the author also focuses on the solving the question whether the Ukrainian employers are searching the brand managers possessing personal dispositions, knowledge and skills of knowledge workers.

Theoretical Background

Marketing, which was for years advertised as the concept that companies must be customer-and-market driven, is now, because of the social transformations, defined as "the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large" (Kotler, Keller 2012, p. 5), and as the authors state, that requires a large amount of work and skills. From the point of view of company management, marketing can be seen as a management process which uses the resources of the whole company in order to satisfy the needs of selected groups of customers in order to reach the goals of both sides (McDonald, Wilson 2012, p. 493).

The part of the marketing management process is product management. Tomek and Vávrová (2009, p. 9) emphasize that product management is an integrated product development and creation process, which corresponds to the market's needs, and at the same time they admit that practical realization of product management can bring various status for product management and thus also for employees carrying out this work. Gorchels (2005, p. 313) integrates brand management with product management referring to the fact that it is the most common form of product management for companies that produce consumer goods. Kotler and Keller (2012, p. 625) explain that establishing a product- (or brand-) management organization is common in companies producing a variety of products and brands.

The essence of brand management was defined by Kapferer (1998, p. 93), an author of the brand identity as “a concept which defines what must stay and what is free to change”. The identity of brands that improve their position on the market is characteristic by their clear differentiating brand positioning, different brand personality embodying the brand and consistent brand communication (Floor 2006, p. 238). Keller (2007, p. 184) emphasizes the importance of internal branding especially for companies operating in the service sector.

The current stage of economic development is often called the “innovation economy”, the “knowledge economy”, the “new economy” (Pavlov, Kostryukova 2016, p. 3). To survive the turbulent changes in today's global environment, any organization needs to strengthen its core business and its ability to grasp new opportunities by innovation activities. While innovation is “an engine that powers an organization's performance and competitiveness, knowledge is the fuel that keeps this engine running, the spark that starts the fuel ignition is the organization employees' creativity” (Pitra, Mohelská et al. 2015, p. 312). They point out, that the overriding challenge for the organization is to address the dialectics of knowledge harvesting and knowledge creation within its knowledge management functions (Pitra, Mohelská et al. 2015, p. 314). Human capital and knowledge management have a close relationship, because knowledge is one of the attributes of human capital. In the words of the visionary Peter Drucker (1993 in Armstrong, 2006, p. 180), who was the first to ever use the term “knowledge worker”, the success rate of institutions will be based on whether they effectively apply the knowledge of knowledge workers. Knowledge workers are defined as workers whose skills or knowledge are inextricably linked with the product or service of their employing organizations (Armstrong 2006, p. 407). Mládková (2004, p. 15) states that the main attribute of a knowledge worker is the fact that his/her work produces, distributes, or applies knowledge. Human capital theory, based by Schultz (1961 in Armstrong 2006, p. 33), is associated with the resource-based view of the firm as developed by Barney (1991 in Armstrong, 2006, p. 35).

Personality prerequisites of creative people can be found in the characteristic of knowledge workers (Truneček, 2003, p. 168; Davenport, 2005, p. 10; Mládková, 2008, p. 21). Disregarding requirements on specialized knowledge and skills of a knowledge worker, it is possible to look to Truneček's inspiring opinion (2003, p. 174), which requires knowledge workers to be primarily able to think in context, able to learn continually, independent, emotionally intelligent and personally flexible.

Objectives and Methodology

The purpose of the paper is to present and discuss the partial results of the author's empirical research project and to link them with the knowledge base. The empirical research is designed to review the requirements which are faced by candidates for brand manager positions when they are first approached by recruiters in both Ukraine and the Czech Republic. In addressing the issue, an interdisciplinary approach was applied as knowledge of the theoretical background and analysis of the current state of the issue and the tendency of its development was required to conduct the research over several fields of study.

Scientific Aim

The research project was designed to verify that a brand manager is an example of a knowledge worker in the 21st century and to provide proof that the business practice sees him/her as such in Ukraine and to answer to the question arising from the research project assumption: “Employers do not publish different requirements for candidates for the job of brand manager in Ukraine and the Czech Republic”.

Methodology

To conclude a successful empirical research, Berelson's content analysis method was used to study the texts of recruitment advertisements that were publicly available on career portals (Berelson 1952 in Miovský 2006, p. 118). For the purpose of the article, the analysis and discussion of results is limited to a segment of ten requirements with the highest frequency. A cross-national study was conducted to compare the requirements in Ukraine and extend the validity of the earlier findings in the Czech Republic. Although there are many different external and internal factors in Ukraine, as mentioned by Sokil and Ubrežiova (2017), the author chose this country for comparison with a set of requirements imposed on Czech brand managers, as according to MINFIN (2017), the expected outlook of GDP growth in Ukraine in the period selected for data collection was between 2.1% and 2.3%. It means it was almost the same as in the Czech Republic at the time when empirical research took place.

In five weeks in April and May 2017, advertisements for positions titled "Brand Manager" were gathered from publicly available advertisements for vacancies in the three selected regions of Ukraine (Kiev, Lviv, and Dnipropetrovsk) on the "Work.ua" job website. This gathered 79 adverts. After removing duplicates, the final sample contained 74 adverts. The data processing was performed in line with the procedure applied in the scientific papers (Wroblowska 2016b; Wroblowska 2016c), which allows for international comparison. The data segments were transferred into an electronic form. The work with transferred data was applied to a so-called manifest content analysis according to Plichtová (1996 in Miovský 2006, p. 240) that only studies the explicit content of the text.

Results

Seventy-four recruitment adverts collected in Ukraine were analysed in 2017. The so called Top 10 requirements from researched Ukrainian advertisement texts are presented in the form of a frequency chart in *Table 1*.

Table 1. Most frequent requirements for brand managers in Ukraine

Order	Requirements for brand managers in Ukraine	Absolute frequency	Relative frequency
1	university degree achieved	67	90,5%
2	work experience in marketing	38	51,4%
3	work with internet/PC/proficient in MS Office application	36	48,6%
4	communication skills/ability to communicate well	31	41,9%
5	advanced level of English language	28	37,8%
6	knowledge of marketing	25	33,8%
7	analytic thinking/analytic abilities	24	32,4%
8-9	able to innovate/creativity	23	31,1%
8-9	experience in the field/preferred experience in the field	23	31,1%
10	result orientation	18	24,3%

Source: author's own work

The *Table 2* illustrates "TOP 10" requirements for brand managers available at career portal Jobs.cz in the Czech Republic.

Table 2. Most frequent requirements for brand managers in the Czech Republic

Order	Requirements for brand managers in the Czech Republic	Absolute frequency	Relative frequency
1	communication skills/ability to communicate well	39	69,6%
2	university degree achieved	35	62,5%
3	creativity	29	51,8%
4	excellent English	27	48,2%
5	driver's licence (Czech group B)	25	44,6%
6-7	analytic thinking/analytic abilities	24	42,9%
6-7	work with PC/work with MS Office on a good level	24	42,9%
8-9	flexibility	23	41,1%
8-9	presentation skills	23	41,1%
10	initiative/proactive	21	37,5%

Source: author's own work

The survey was conducted by Wroblowská in the Czech Republic in 2015 applying the selection procedure described above. The sample of single adverts reached a total of 56. Analysis of requirements for education, professional knowledge, hard-skills, and practice of candidates for brand manager positions in the Czech Republic is published in a scientific article (Wroblowská 2016b) and partial results related to requirements for soft skills and personality traits of Czech brand managers are presented in another scientific paper (Wroblowská 2016c). The Ukrainian set of requirements is discussed in the following paragraph.

Discussion

“University degree achieved” was the most frequent requirement in the list “TOP 10”, see *Table 1*. Without jumping to the evaluation of the research assumption regarding the identical requirements for candidates for the post in both countries, it is appropriate to supplement the Ukrainian findings with information on the existence of a requirement for achieved university degree in the Czech Republic and explain the gap. More than 20% of Czech recruiters formulated the requirement for education as “high school or university” and almost 9% asked “high school or higher technical education, not university”.

More than half of Ukrainian advertisers (51.4%) required that a candidate for the position of a brand manager has a work experience in marketing. The third most frequent requirement – 48.6% - was for IT skills. We can see that general competencies, into which “advanced English” with the fifth highest occurrence belongs, are in Ukraine very important for obtaining the job of brand managers. Advertisers also required that a candidate for the position of a product manager is experienced in the industry or the advertisers indicated that experience in the advertiser’s field is an advantage. One third of Ukrainian recruitment adverts contents the requirement “knowledge of marketing”. There is no doubt that brand managers must have an adequate knowledge.

The requirement for the “ability to communicate well”, which is the fourth most frequent in Ukraine and on the top in Czech “TOP 10” ranking, is in line with business practices. In a company organization, marketing specialists usually have the role of an intermediary with the task to understand the customers’ needs and spread their voice into other functional departments of the organization. Brand managers usually do not have formal authority in the organization so they have to make the full use of their behavioural competency in fulfilling their work tasks. Wroblowská and Ruda (2015) focused on product’s manager job and they found in their research that Czech employers preferred applicants with analytic ability and ability to work independently. Both the job of product managers and of brand managers is the role of an individual coordinator, and there is no surprise that the most frequent requirement for product managers (65%) was ability to communicate well.

The research project confirmed that creativity and analytical thinking were among the most common requirements placed on brand managers in Ukraine. With regard to the role of innovation in the global competition and literature review, a more frequent requirement of creativity in the advertisements was expected.

The last tenth position among Ukrainian “TOP 10” requirements belongs to behavioural competency “result orientation”. It means that employers are interested in how a person with a given competence manifests, if he/she sees the value in performance and completed tasks and focuses on achieving goals. The question is how are ambitious the goals of brand manager’s job. Steenkamp (2017, p. 68), who has studied global brands for over 25 years on six continents, points out that the brand team of a global brand have a set of skills and knowledge that sets them apart from the typical corporate marketer.

Mládková (2004, p. 48) emphasized the need to take into account not only knowledge and experience of knowledge workers, but also the style of dealing with people, the ability to communicate and work in the team. As she also pointed out the importance of ability to work autonomously, ability to innovate and analytic ability, relying on this expert opinion can be inferred that research findings confirmed that employers are looking for brand managers possessing knowledge, personal dispositions and skills of knowledge workers in Ukraine. The new question is whether job roles of brand managers are classified as those belonging to the expert model, according to Davenport (2005 in Mládková, 2008, p. 119-120), in which experts must be able to adapt their work to a particular situation independently and flexibly, or to the collaboration model, when workers work as experts and at the same time have to be able to collaborate beyond the boundaries of internal organization units.

With regard to the question arising from the research assumption, the “Top 10 requirements” tables in both countries show that the sets of requirements for applicants for the post of brand managers differ. To clarify this conclusion, it is necessary to compare the complete sets of requirements and to verify differences by statistical method.

Conclusion

The data gained by studying recruitment adverts in the selected regions of Ukraine provided information on the most frequently published requirements for qualification, experience, behavioural competencies and personal qualities. The findings confirmed that employers are looking for workers possessing knowledge, personal dispositions and skills of knowledge workers in Ukraine. The differences in the Ukrainian and Czech employers' expectations supported by a set of “TOP 10” requirements inspire the discussion and are the reason for a deeper investigation of the brand manager's job role.

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DETERMINANTS OF SAFETY OF PRODUCTION PROCESS

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Abstract: The safety of the processes taking place on the B2B market is an extremely important area of research. The significance of this issue is even greater because safety is a multidimensional term and in practice is not just risk management. Ensuring safety in particular in the field of production is conditioned by effective and efficient multi-perspective management, based primarily on proper understanding of safety aspects in a company and measuring it in order to constantly improve all kinds of activities. In the herein paper, apart from theoretical considerations in the afore-mentioned thematic scope, the results of the self-research illustrating the complexity of the subject are presented.

Keywords: determinants of safety in companies, industrial safety, safety of production

Introduction

In the face of the progressing various threats of the modern world, the importance of broadly understood safety is growing. It is becoming not only an expected, but even desirable, attribute of everyday life, both in the private and professional spheres. The increased awareness and thus the significance of the issues related to the effective safety maintenance has caused considerable interest in this area, both among scientists and practitioners around the world. In particular, it is visible on the B2B market (Business to Business), where safety is an immanent feature, more and more often conditioning the success of business operations, which as a result of changes in micro and macro environment are exposed to numerous factors threatening the continuity of industrial activities. For example, these are at least transformations related to the initiated Revolution 4.0, which emphasizes the issue of safety in the context of implemented process changes. This dependence is often called as SIP 4.0 - Safety & Security in Industry 4.0 environments (Papa et al., 2017, p.981). The concept of digital transformation assumes the existence of intelligent systems that are cross-linked both vertically with other processes within the enterprise, and horizontally, related to value-creating networks that can be managed in real time from placing an order to coordinating sales logistics (Götz, Gracel 2017, p.217). Such solutions undoubtedly imply numerous tangible benefits, both in the financial and management or operational dimension (Aitken 2017, p.30). However, the complexity of the scale of process integration into intelligent systems is at the same time uncertainty and thus the potential risk of new, how real threats (Magruk 2016, p.275). Therefore, an economic practice is increasingly willing to take numerous initiatives to contribute to guaranteeing the required level of process safety, in particular those related to production. These are both comprehensive projects in the field of methodology and model procedures, dedicated to strategic sectors of industry in Europe, such as SESAMO, or international smart manufacturing standards developed by organizations such as IEEE, IEC, ISO or ISA (Hannah 2018, p.50). Numerous activities in the field of safety promotion and dissemination are also undertaken by single economic entities, for example, Siemens has the Zero Harm Culture program, and Bosch has created the Condition Monitoring Platform, to provide a transparent and controllable manufacturing processes, which are under the president of Bosch Packaging. Köning, the key to safety (www.bosch-presse.de). The above examples confirm the importance of the issue and hence the need for research, improving existing processes to ensure industrial safety, in particular in relation to production activities.

Safety of production processes

Despite the universality of the issue, the interpretation of the concept of industrial safety and the identification of its conditions are still not clearly defined in the literature on the subject. The multidimensionality of the term indicates that it can be considered on many levels, which will also determine the way of managing it (Wronka 2018, p.4). The most obvious dimension is related to functional safety, and therefore freedom from unacceptable risk achieved through lifecycle, especially

according to The IEE's Functional Safety Professional Network it is that part of the overall safety of equipment/product/plant, which depends upon the correct functioning of electrical, electronic or programmable electronic safety-related systems (Vernon 2005, p.30). The issues of functional safety as important are regulated by a number of normative documents, including through the guidelines of ISO 26262, which specifies requirements regarding the area of management, concept phase, product development, production, operation and support, or the IEC 61511 standard, which sets minimum requirements for safety-related systems in the manufacturing process, as well as numerous directives and regulations at the national level). Observation of business practice indicates that for the application of functional safety systems, more and more manufacturers representing various sectors, not necessarily related to a typical metal or electromechanical industry, are convinced. This results both from the fact that the legal requirements in terms of security have been tightened, but also from the economic calculation. Improved efficiency, thanks to higher fault tolerance, avoiding multifaceted costs related to safety (including those related to safety insurance), as well as increasing competitiveness, thanks to global acceptance of the implemented solutions, are just exemplary benefits achieved by guaranteeing functional safety in a production company. This dimension is also related to the safety coupling with the achieved level of production quality (Gookins 2012, p.1). Analyzing the structure of the product, it is clear that safety is a feature embedded in its core and thus significantly determining the broadly understood quality of the offer, expected by customers, both individual and industrial ones (Wronka 2016, p.32). In addition, all quality activities undertaken as part of the improvement of production processes have undoubtedly a positive impact on safety. These can be both quality tools, including audits, as well as guidelines for quality standards and pro-quality concepts (Álvarez-Santos et al. 2018, p.135). It should be emphasized that the diffusion of quality and safety is a key component of the value generated in the entire supply chain, and not only within the production cell. According to the results of the research made by Stanford University safety improvement programs may be very profitable for the whole supply chain (Stajniak 2010, p.1). The reaction of business practice to the existence of this type of interrelations are relatively new management concepts, such as: Supply Chain Safety Management or Integrated Supply Chain Risk Management, which main assumption is to reduce the supply chain's vulnerability to disruptions in particular in the delivery of the expected by the stakeholders quality and thus the break of the chain continuity (Essig et al. 2013, p.5). In this sense, safety also determines the liquidity of sales and thus strengthens the sustainable competition advantage. The results of the research, clearly indicate that there is demonstrable evidence to indicate that safety as a business objective can assist an organization in achieving the long-term benefit of operational sustainability, that is, achieve a long-term competitive advantage by balancing business costs against social costs (Maudgalya, Genaidy, Shell et al. 2008, p.152). However, investment in the aspects of safety is not only a financial advantage. Activities in the field of safety favorably affect both physical resources and as well as organizational resources. But moreover, it is increasingly noticed in the context of multi-aspect analyzes of production processes' safety that safety of production depends on human resources. A safe production company requires a trained workforce and positive motivation of employees (Rechenthin 2004, p.297). That is why such an important condition is the skilful creation of the safety culture as an integral part of organizational culture. As a collection of individual and group values, attitudes, perceptions, competences, and patterns of behavior in the field of safety, this is an area that requires continuous improvement and proactive activities that take place on many levels of a production company. Building a strong safety culture conducive mainly: commitment and leadership of top management, establishing and implementing a clear and effectively communicated safety policy statement, standards and procedures, stimulating the involvement of employees, strengthening their self-esteem, education and employees' training and the most important element: everybody's belief that safety is a value associated with each objective of the organization (Tabor 2016, p.505). The problem of the safe operation of production infrastructure is the EU perceived as a basic issue not only from industrial perspective but also from social one. An expression of this may be the concept of Corporate Social Responsibility which, according to the European Commission, refers to companies that take responsibility for their impact on society (<http://ec.europa.eu/growth/industry/corporate-social-responsibility>). Safety is one of the indicators used to measure companies' overall progress in CSR. In practice, the impact of safety on human beings can be considered both from internal perspective, which focuses on a company's internal actions with its employees (eg. personnel policy and occupational safety, employee training or

actions to promote a safe and healthy workplace), or external perspective, which consists from actions in a company's own supply chain network, actions in the local community, and actions to maintain product safety (Koskela 2014, p.294). It is worth mentioning that as part of the production safety, socially responsible products are increasingly being introduced on the market, which, although they are less competitive in terms of prices from substitutes, are gaining more and more clients on global markets (Verteramo Chiu, Liaukonyte, Gómez 2017, p.1833). Additionally many companies use GRI's Sustainability Reporting Guidelines as a reference for developing CSR-related reports. Especially GRI Standard 403: Occupational Health and Safety 2016 proposes its own set of health and safety leading indicators or GRI Standard 416: Customer Health and Safety 2016, which includes disclosures related with assessment of the health and safety impacts of product and service categories and incidents of non-compliance concerning the health and safety impacts of products and services. These standard can be used by an organization of any size, type, sector or geographic location that wants to report on its safety impacts (<https://www.globalreporting.org>).

The multidimensional determinants of the safety of production processes presented above are an important and interesting area, although still not sufficiently explored in practice. This fact prompted the Author to develop and conduct 'diagnostic scientific research among selected manufacturing companies operating in Poland, to refine the research problems of the discussed issues.

Research Data and Results

The research conducted by the Author concerns widely understood aspects related with safety of production process on the B2B market. The study consists of two phases: pilot and the main one, which is planned to be carried out in May 2018. Each phase is preceded by literary studies and qualitative research in the form of consultations with practitioners from the analyzed scope. The pilot survey, which results are partly presented in this article, was performed at the end of 2017 (12th-13th of December) during cyclical national conference "Safety Automation". The paper-and-pencil option was chosen as the most effective in such research conditions. Due to the specifics of the research area, the focus was only on the production companies operating in Poland. It was assumed that respondents should know the idea of safety of production process. Out of the total of 38 distributed questionnaires, 30 were properly fulfilled. The analyzed companies represented different manufacturing sectors, which are presented in Table 1. Except sector, company's profile contained data related to: spatial range (local; national or international), market in which the products are being offered (domestic; foreign; domestic and foreign), type of the market, on which the offer is addressed (B2B; B2C; B2B and B2C), number of people employed (up to 10; 11-50; 51-250; 251-500; more than 500) and type of capital (national; international; joint-venture). All these data allowed for detailed analyses of responses given by companies. The structure of the questionnaire consisted of six questions concerning:

- Understanding of the term safety of the production process;
- Tools/means used to ensure safety of the production process;
- Subjective responsibility for safety of the production process;
- Influencing factors/determinants of safety of the production process;
- Used measures of safety of the production process;
- Identified barriers/difficulties in management of safety of the production process.

Respondents taking part in survey, could mark a free number of standardized items placed under mention above asked questions. The percentage of each variable was calculated. The variables used in the survey were developed on the base of the specialist literature in the field of industrial safety and interviews with safety experts .

Due to the subject of the article and limitations in the scope of extent of the article, the Author only approximates the results obtained in the area of the questions related with determinants of safety of production process term (Table 2), used safety indicators (Table 3) and identified problems related with safety management (Table 4). The remaining ones will constitute the issue presented in other publications. Table 1 presents the structure of research sample in terms of production sectors, assuming that one entity can represent more than one industry.

Table 1. Characteristics of the research sample

Sector	Number of companies
Chemical	2
Construction	7
Electromechanical	13
Food	5
Metal	7
Textile	2
Chemical	2
Construction	7

Source: own elaboration

It can be assumed that, probably due to the specificity of the conference, during which the described study was conducted, the majority of companies are from the electro technical and metal sectors. Also as the business practice shows, these two industries are the most advanced in the field of security, especially in the technical dimension. Table 2,3,4 present the quantitative distribution of answers to mentioned above questions.

Table 2. Determinants of safety of production process

What factors affect the safety of production in company?	Number of answers / a percentage of all indications
Image reasons	6 (5%)
Policy of the company	18 (15%)
Legal requirements	12 (10%)
Financial sanctions	3 (3%)
Health and safety regulations	22 (19%)
Concern for human resources	12 (10%)
Used technology	11 (9%)
Pressure of business partners	6 (5%)
Social responsibility	9 (8%)
Employee awareness	18 (15%)

Source: own elaboration

Table 3. Applied safety measures

What are safety measures in company?	Number of answers / a percentage of all indications
Accident rate	21 (29%)
Absenteeism of employees	11 (15%)
Machine downtime	10 (14%)
Number of defective products	7 (10%)
Value of paid penalties	3 (4%)
Number of external controls	4 (6%)
Number of failure	8 (11%)
Lead time (the amount of time taken between order confirmation and order fulfillment)	8 (11%)

Source: own elaboration

Table 4. Identified barriers in production safety management

What barriers/difficulties in production safety management do You identify in company?	Number of answers / a percentage of all indications
Short delivery times – time pressure	16 (23%)
Lack of human resources	15 (21%)
Incompetent employees	13 (18,5%)
Lack of top management commitment	4 (6%)
Pressure only on costs	9 (13%)
No importance (rank) of safety issues	7 (10%)
Outdated infrastructure	6 (8,5%)

Source: own elaboration

Discussion of results

As confirmed by the results of the conducted research, the safety of production processes is an area determined by many factors that are difficult to classify into one cohesive group. Regulations in the field of Health and Safety, applied production technologies or company policy are factors that obviously determine the level of safety of the processes being carried out. However, a high percentage of indications regarding employee awareness deserves attention. Therefore, the impact of organizational culture on production safety is undeniable. Respondents also acknowledged that safety is conditioned by concern for human resources and CSR activities. These variables have a higher frequency of indications than, even the pressure of business partners or financial sanctions. This confirms the previously described trend, the increase in the importance of corporate responsibility in the social or environmental dimension. The identified dependence between production safety and corporate image is also very interesting. Perhaps in the light of growing social awareness and expectations, industrial entities want to strengthen their image, among others by demonstrating the safety of its production activity (Agwu 2012, p.70). Ensuring broadly understood safety is a continuous process that requires monitoring and measurement as part of effective and efficient management. These activities are all the more necessary if the company undertakes safety certification, whether in the field of safety management systems or safe products. Safety performance measurement (SPM) can provide many useful information, help in introspection and in decision-making. Also it shows the progress and current status of all types of activities used by an organization to control safety. In business practice SPM can be developed in different ways: traditional (eg. statistical issues and percentage of budget allocated in safety area), transitional (eg. economic trends like savings obtained through prevention) and modern one (eg. positive indicators like safety culture or climate evaluation). But usually typical safety performance indicators are related with measures, like accident rate or absenteeism of employees (Arezes, Miguel 2003, p.20). This was also confirmed by the results of the conducted research. It is true that the surveyed organizations measure safety primarily in the field of OH & S and these are so-called lagging indicators, they are slowly noticing too leading indicators related with deviation from ideal situation like number of failure, defective products or machine downtime (Tang, Leiliabadi, Olugu 2016, p.44). Particularly noteworthy is the relatively new indicator in the field of safety measurement, namely lead time, or even safety lead time. The Author expects that more and more companies will start using them to manage safety aspects in their companies, in particular in those operating under the Lean or Sustainable Supply Chains system, due to the fact that both systems are influenced by the level of uncertainty.

The last table presented (Table 4) shows the most frequently identified by the respondents barriers in safety management of production processes. In addition to the time pressure (here referring to lead time), the problem with the human factor is most felt. Insufficient shortages (here also the issue of ineffective transfer of competences is included) as well as indifference in matters of safety are obstacles most frequently encountered by the investigated entities. This indicates that safety is not only a technical or economic dimension, and above all human one, hence the safety culture that requires the involvement of all employees, regardless of the level in the organizational structure or the nature of the work performed. Because safety is everybody's business.

Conclusion

Summing up the above considerations, one may recall many times in the literature, but also probably business practice, the question: Is safe production an oxymoron? (Pagell et al. 2014, p.1161). The answer, as proved in the article, depends on many factors determining the success of interoperability on the principle of win-win in the area of safety and production. Above all, the awareness of the complexity of the issue and the desire for an integrated approach (eg joint management systems for operations and safety) are factors that give a real basis to conclude that the synergy of safety and production is possible and the profit and loss account, clearly indicate that in addition it is additionally beneficial in both the economics and environmental as well as social dimension. The aim of the article was reached, but It should be emphasized that both the applied research methodology and the obtained results have some limitations. Results reached from the pilot research require further quantitative analyses for more detailed verification, especially in the context of the specificity of the industry. Therefore, the presented results should be treated as an illustration of the subject taken, as well as an impulse for further, more detailed research.

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AN EMPLOYEE IN THE WORLD OF SUSTAINABLE MANAGEMENT IN SUSTAINABLE ECONOMY

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Abstract: The European economy and enterprises in their activities are increasingly taking into account the assumptions of sustainable development and the concept of CSR. In development strategies, there are therefore such terms as: sustainable management, sustainable production, sustainable resource management and many others. The employee, on the other hand becomes a stakeholder, an element of human capital or intellectual capital of the organization. However, the question arises: what are the actual changes in the role of employees in organizations and the economy, and what are the consequences for these employees?

In the presented paper, an analysis of this issue will be presented, based on literature and empirical studies.

Keywords: sustainable development, management, corporate social responsibility, employee

Introduction

Papers on the implementation and realisation of the concepts of sustainable development, sustainable enterprises, sustainable management, sustainable marketing, sustainable production, and even sustainable personnel (Pabian 2015, p. 8) have been appearing in the literature referring to management and economics for a number of years. Does it, as if automatically, mean that the economy and businesses forming it automatically and commonly have begun to follow principles of “sustainability” in business practice? One can have serious doubts.

While observing the Polish and international economy it can be noticed that companies implement and realise the principles of sustainable development and social responsibility more and more often. However, in practice it is difficult to assess what are the advantages the company workers can take from them and to what extent they participate in their realisation.

The aim of this paper is to find an answer to the following question - what factors are decisive as far as the effective functioning of an employee in an enterprise operating in a sustainable manner are concerned.

A survey that will allow the answer to this question will be carried out on the basis of the analysis of Polish and international literature sources concerning these issues and the presentation of the results of the preliminary survey carried out on the basis of the analysis of companies’ internal materials and by means of Delphi method (experts’ method) (Kudłak and others 2018, p. 285), in which representatives of company executives and HR specialists took part.

Review-of-literature and methodology of the research

The notion of sustainable development has repeatedly been described in the national and international literature and UN and EU documents. Its principles and methods, as well as measurement techniques and tools have been elaborated. When speaking of sustainable development attention is paid to the fact that it constitutes proposal of “a qualitatively new form of conscious and responsible individual and social life based on the development together with the environment - social and natural taking into account environmental restrictions and social expectations” (Płaczek 2012, p. 80). In the United Nations Conference Declaration it was defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:

1. The concept of “needs”, in particular the essential needs of the world’s poor, to which overriding priority should be given; and
2. The idea of limitations imposed by the state of technology and social organization on the environment ability to meet present and future needs” (Stappen 2006, p. 19). Officially the concept was adopted at the second "Earth Summit" in 1992 and since then the sustainable development has been treated as a new, environmentally optimal and socially rewarding vision of the development of the human civilisation (Piontek 2002, p. 11).

Together with the dissemination of the concept it began to be perceived as a global reference to corporate social responsibility used in management at the microeconomic level (Zieliński 2014, p. 654; Zutek 2012, p. 202). The issues concerning the role of enterprises and their employees in its developments started to be widely studied and described.

Various challenges enterprises are facing nowadays and will face in the future are mentioned as reasons for which they take initiatives connected with the realisation of the idea of sustainable development. They include: the necessity to build the market position by means of focusing on innovativeness, constantly advancing process of internationalisation, the emergence of new technologies and changes in employment connected with them, changes on the labour market resulting from starting the period of professional activity of the so called "millennials" (Moczydłowska 2015, p. 32, Turner and others 2018, p. 6).

These factors, among others, caused that a strategic approach to sustainable development, for companies operating in specific countries and on the international market, has become a key factor in building a competitive advantage and new principles of cooperation with stakeholders, who also include employees (Rodriguez and others 2002, p. 139; Cui and others 2018, p. 551).

In research on the impact of sustainable development on the operation of enterprises and their employees a new trend also appeared. It connected this concept with the theory and practice of human resources management - sustainable human resource management (Ehnert 2009; Pabian 2011, p. 10; Poczowski 2016, p. 303). It consists in conducting all the parts of the human resources process in such a way that the employees could realise company's economic, environmental and social objectives, flexibly adapting it to turbulent changes in the surrounding environment and functioning in the conditions of chaos and crisis (Grudzewski and others 2010, p. 300), simultaneously contributing to "balancing intergenerational needs" (Pabian 2015, p. 9).

In the SHMR implementation employees' needs cannot be forgotten. They include employee-centred treatment of people on the working process, development of effective systems of work, enhancing confidence as the base for shaping social relations in the working environment, creating and developing programs allowing for reconciling work and private life (Robak 2015, p. 284), building healthy work organisation and also learning employees how to take care of their health (Poczowski and others 2011). Such an understanding of HMR activities results from the changes in the attitude to the management of people over the last few decades. In the effect of these changes people started to be treated as a key factor of the capital regarded as a demanding collective partner and a co-responsible stakeholder and at the same time the main source of diversity in enterprises.

A significant emphasis, in case of sustainable approach to HRM, is also placed on taking natural environment initiatives and workers' participation in these initiatives by shaping attitudes and behaviours of workers referred to as "green". Some people even talk about the introduction of the green human resources management (Jackson and others, 2011, pp. 99-116; Renwick and others, 2013, pp. 101-112), or building green leadership for green teams allowing for the creation of the organizational culture facilitating workers' engagement in environment protection issues and inclusion of environmental issues in traditional HRM areas (Rajasshrie P., Brijesh 2014).

If it is assumed that conducting a business activity in compliance with binding and recognised ethical principles, policy of managing diversity, environmental requirements and stakeholders' expectations (Turner and others 2018, p. 2) and needs constitutes a practical reflection of the adoption of the aides if sustainable development in the company and human resources management, then the search for principles, methods and ways of implementation of these assumptions should be conducted through the analysis of company internal documents, and especially their development strategies, missions and documents with formal principles, that is ethical codes. Such a research procedure was realised in order to gather the information needed to perform empirical analysis the results of which will be presented in the further part of this elaboration. Information achieved in this way was complemented by CSR reports (Nazari 2017, p. 169), reports of good practices and surveys based on typical tools used in case of structured interviews allowing the use of the first stage of the Delphi method. Interviews were conducted among executives and HR experts.

Results and Discussion

The research covered WIG20 companies. (The WIG20 is a capitalization-weighted stock market index of the twenty largest companies on the Warsaw Stock Exchange.) They were divided into three categories: industry (JSW, KGHM, LOTOS, PGNiG, PKN Orlen), trade and services (LPP, Eurocash, CCC, CDProjekt, Cyfrowy Polsat, Orange Polska, ENERGA, PGE, TAURON) and finance (Alior, PKO BP, PKAO SA, BZ WBK, mBank; PZU).

Most of the surveyed companies does not separate the activities in the area of CSR and sustainable development. It can also be believed that the implementation of the idea of sustainable development is not of great significance for them. Only companies of fuel and power sector pay attention to the realisation of this concept and to reporting practices connected with it. It should be stressed, however, that the area of corporate social responsibility and sustainable development they combine into logical whole and report jointly.

On the basis of the information presented by the companies on their web pages (table 1) it is difficult to judge to what extent principles of sustainability are reflected in HR policy and in HRM and even more if any actions supporting sustainable HRM are taken. Only a few provide information concerning diversity policy or anti-discrimination codes - LPP, Cyfrowy Polsat, BZ WBH and PKO SA. It is clear that some of them do not attach any importance to informing about their attitude to the implementation of sustainable development principles and CSR, it is particularly visible when searching for information on the websites of CDProjekt and Eurocash.

Two of the largest listed companies, namely PGNiG and KGHM deserve special attention. Analysing the information available on their websites and comparing it with the data of Responsible Business Forum, it can be concluded that both companies meet the standards expected by the European Union. In the case of KGHM the fact that this company has been in GC since 2014 deserves special attention and PGNiG as the only company informs about the implementation of standard AA1000.

In the case of other companies of WIG20, no information indicating the fact that the implementation within the area of CSR or sustainable development is in progress or planned, the more that the principles of this development introduce HRM into practice. However, attention should be paid to some activities taken up by companies of power sector, as well as Cyfrowy Polsat and Orange. Analysing the activities of power sector companies in detail very similar categories of activities are noticeable. They are connected with their participation in campaigns promoting the development of renewable sources of energy and energy efficiency. Similar programs are signalled by two other companies, however in their case it is a campaign promoting clean natural environment and not dumping electronic waste together with household waste.

The activities of LPP, in turn, arise a lot of controversy, as it is a company that moved to Bangladesh most of its production.

Table 1. Sustainable development reflected in the information on company websites

Company	A tab on the homepage	Distinguishing activities	Ethical codes	RI membership
JSW	Responsible business	Academy of Talents [<i>Akademia Talentów</i>]	yes	yes
KGHM	yes	KGHM Foundation; Global Compact Membership	yes	yes
PGNIG	no, access through ABOUT PGNIG tab	CSR reports on the basis of GRI; standard AA1000; PGNIG Foundation	yes	yes
PKN Orlen	yes	Orlen Dar Serca Foundation	yes	yes
LOTOS	Responsible LOTOS	Złota Karta Lidera Bezpiecznej Pracy [<i>A golden card of safe work leader</i>]	yes	yes, no confirmation on WSE website
LPP	Responsibility	Support, among others, for: Fundacji Hospicyjnej w Gdańsku Caritas Polska	yes, Anti-corruption Code	no
Eurocash	no	Support, among others, for: PCK Przemysł, Enigma Foundation	Lack of data on the website	no
Cyfrowy Polsat	no, access through Relations with Investors tab	Polsat Foundation	Principles of Good Practices; Diversity Policy	no

Orange PL	no, access through About us tab	Orange Foundation	yes; Good Practices Code	yes
CCC	No, access through Aout comoany, Relations with investors tabs	Support for foundations: „A kogo”, „Mimo wszystko”, TVN „Nie jesteś sam”	Good Practices	no
CD Projekt	No tabs	Lack of information	Lack of data on the website	no
Enea	yes	ENEA Foundation	yes	yes
Energa SA	yes	„ENERGA for Environment” Program	yes	yes
PGE SA	yes	PGE „Energia z serca” Foundation	yes	yes
Tauron SA	yes	TAURON Foundation,	yes	yes
Alior Bank	No tabs	Lack of data	Lack of data on the website	no
BZ WBK SA	No, access through Information about bank tab	Stefan Bryła’s Bank Zachodni WBK Foundation	General Code of Proceedings; Anti-corruption Program	yes
mBank	No tabs	mBanku Foundation	Lack of data on the website	yes
Pekao SA	No, access through About bank, Social responsibility tab	Marian Kanton’s PEKAO S.A. BANK Foundation	Code of Banking Ethics of the Association of Polish Banks; Good Practices in Financial Market Canon; UniCredit Group Charter of Good Conduct Rules; Declaration of Equal Opportunities and Anti-Discrimination	no
PKO BP	Lack of information	PKO Bank Polski Foundation	Code of Banking Ethics of the Association of Polish Banks; Good practices of WSE companies	no
PZU SA	No, Social responsibility	PZU Foundation	Principles of Good Insurance Practices, Good PZU Practices	yes

Source: author’s own elaboration on the basis of information from company websites

Until recently the company was accused of not having an ethical code binding in all its factories. It was only in 2016 that such a code was adopted.

Analysis of information material presented on the internet does not give the opportunity to assess the real commitment to the implementation of the principles of sustainable development, therefore it was assumed that the managers at all levels of management and HR specialists employed in those companies will serve as another source of information.

Unfortunately, at the time of preparation of the research material, only 11 people were managed to be examined (6 workers of HR departments and 5 line managers), so their responses can be considered only as individual’s opinions, without indicating any regularity resulting from them and formulating conclusions.

To achieve the objective set at the beginning, the researched people were asked what their expectations from current and future employees are and what are the company initiatives connected with the idea of sustainable recruitment and development of human resources.

Unfortunately, it turns out that what the researched persons appreciate most in the assessment of candidates usefulness for a given job are their hard formal qualifications and professional experience. Their readiness to work in non-standard time and overtime was also attached lot of importance to. Assessing suitability for a job of already employed workers more often (7 persons) attention was paid to harmonious personality of workers, their ability to cooperate with other colleagues as well as the ability of bearing responsibility for themselves and other colleagues For more than half of the respondents (6 researched persons) the engagement in one’s own development and demonstration of innovativeness and creativity when troubleshooting were very important. The same respondents also recognised the role their employees acting in such a way so that their work contributed to a positive evaluation of the company in the eyes of customers and partners. Only two claimed that they attach importance to the absence of pathological behaviours such as violations of discipline and unethical behaviours towards colleagues.

As it appears from the literature, SHRM is not only connected with the creation of formal relationship in an organization but it also requires the implementation of specific principles in the form of codes, rules or regulations. The policy of diversity including anti-discrimination programs belongs to them. All the respondents claimed that in their companies programs preventing discrimination and fighting with mobbing and harassment are implemented. However only one person among respondents was aware of the existence of a comprehensive document on diversity policy and indicated additional activities carried out by this company within the framework of this policy: adequate facilities for disabled persons, flexible working hours in case of some job positions, and adequate facilities for people with children.

The last issue to which the attention was paid is the inclusion of ecological issues in HRM practices. In case of all the answers given by respondents no issues concerning the expectations of pro ecological behaviours from workers and taking up activities connected with creating such types of behaviours by the management appeared. It leads to the suggestion that the respondents do not recognise the role of natural environment protection issues that can be initiated and realised within the working process. As it is indicated by scientific reports such an attitude is popular not only among Polish but among foreign management representatives as well.

Conclusion

Despite a very limited in number sample, which took part in the research it can be concluded that the executives managing the largest Polish companies are acquainted with principles of sustainable development. They are also aware of their impact on realisation of the personnel function and HRM that take into account the guidelines of this development. What is more, their views on SHRM realisation are similar to the ones presented by foreign corporations representatives and take into account national and international scientific achievements.

But for a more detailed examination of this issue it is necessary to deepen the research conducted by the author and to carry out other analyses covering these issues. Although, due to the scant research sample the statement that the aim of this paper was achieved is highly uncertain. However, it is possible to make a preliminary statement that WIG20 companies implement principles of sustainable development and take efforts to promote employees' participation in its realisation.

The changes in the attitude to HRM can also be noticed and positively assessed. By means of them the companies prepare to compete for achieving the market advantage by cooperating with employees who are stakeholders and who contribute to the creation of relations with the environment and not only constitute an element of resources inevitable in the realisation of aims.

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STRATEGIC CHOICES FOR CREATION OF SUSTAINABILITY-ORIENTED INNOVATION IN THE ENTERPRISE

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Abstract: Among many factors of innovation, the concept of sustainable development is becoming more and more important, which is aimed at incorporating the ecological and social dimension into traditional business management. In this respect, the companies' ability to innovate based on the principle of sustainable development known as the Sustainability-Oriented Innovation (SOI) comes to the fore. The aim of this paper is to determine the processes underlying the strategic choices made by enterprises from the perspective of SOI, which together fulfil the content of its innovation strategy and the identification of the place of SOI in strategic management. I also disentangle the role of risk perceptions and dependence in explaining innovation decision by taking account of the innovative strategy based on sustainable development and the level of strategic management, at which SOI should be placed. The article is of a theoretical and review nature. The basis of the research method is analysis and criticism of the literature.

Keywords: innovation strategy, strategic management, sustainability-oriented innovation

Introduction

Modern enterprises are increasingly aware of their growing influence not only on the economy, but on life in general. In this context, making strategic decisions in innovation management becomes the basis for shaping the future development of enterprises, as well as the economy and society. Companies recognize that their competitiveness on the market will depend to a large extent on whether they choose the path of sustainable development. Those who want to build a competitive advantage based on sustainable development must adapt innovative products and business models to the strategic requirements of Triple Bottom Line - Planet, Profit, People (Elkington 2012). In this regard, at the foreground comes the company's ability to create innovations based on the principle of sustainable development called as Sustainability-oriented innovation (SOI), is aimed at improving or introducing completely new products or services whose main assumption is to take into account economic, social and environmental factors (Zajkowska 2017, p. 54). According to Paech (2007, pp.121-139) SOI is linked to "directional risk", as the direction of (environmental and social) sustainability impacts of innovations are highly uncertain, particularly in the long term. Therefore, the question arises, what strategic choices are the content of an innovative strategy based on sustainable development and at which level of strategic management it should be located? Despite the high research intensity on the concept of sustainable development and innovation management, the positioning of SOI in the business strategy from the perspective of strategic choices has not been clarified, which is a theoretical and empirical scientific gap. Attempting to fulfill it, the purpose of the article was set to determine of the processes underlying strategic choices made by enterprises from the perspective of SOI, which together fulfil the content of its innovation strategy and the identification of the place of SOI in strategic management. I also disentangle the role of risk perceptions and dependence in explaining innovation decision taking into account an innovative strategy based on sustainable development and level of strategic management, at which SOI should be placed.

Using the method of analysis and criticism of the literature (Apanowicz 2003, pp. 86-88), the first part of the article discusses the essence of strategic choices in the field of SOI, the second part presents the place of SOI in the strategic management structure, the third is the approximation of the choice of SOI implementation strategy between the application of the new technological solution and the introduction of the new business model. The summary contains the most important observations from the considerations and directions for further research and development.

Strategic choices for SOI

Strategic choices are characterized by one-off, new, ambiguous and complex decision contexts; they require resource commitment (or the decision not to commit), and they are not easily reversible (Bansal 2005; Eisenhardt and Zbaracki 1992, pp. 17-37; Mintzberg et al. 1976, pp. 246-275).

Strategic choice is understood broadly as a result of the strategic approach used (Urbanowska-Sojkin 2011, p. 40) and in a narrow perspective as a strategic decision characterized by complexity, the need for an integrated approach and the type of goal being pursued (Urbanowska-Sojkin 2011, p. 25).

One of the key challenges facing companies is to develop ecological, social and economic balance in their innovative activities. The key is to make the right strategic choices that will allow SOI to be systemically applied and put into everyday business practices. Strategic choices are based on managerial decisions arising from reference points, such as clear visions, strategies and executive capabilities that enable the use of a sustainable megatrend. In the context of SOI, the company should make strategic choices by answering the following questions:

1. What is the expected result of the SOI taking into account the level of strategic management of the company?
2. How to ensure the company's participation in the value generated by SOI, what complementary assets, abilities, products or services could prevent customers from choosing their rivals' offer?
3. To what extent should the company's efforts focus on technological development in SOI, and in what extent on innovations concerning the business model?

Unstable management decisions neglecting social and environmental issues make it difficult for the entire corporate organization to improve the conditions for sustainable development. Each innovation is a step into the unknown and involves risks. In order to move forward, modern enterprises should accept this property and face it. In this aspect, the need to choose between risk and benefits is of particular importance. To reduce the risk and unintended consequences associated with innovation, companies should learn to make prudent choices when it comes to new products and services.

Contemporary markets of consumer goods and services as well as factors of production create a strong pressure on providing solutions that are both innovative and safe for the natural environment and health of users. Increasingly, these types of parameters constitute a determinant of quality that is a kind of barrier to entering a given market. The aim of the new strategy is to indicate the role of SOI, which is considered in the context of development of technologies contributing to sustainable development, and thus allow them to save raw materials, increase production efficiency, and take into account system and organizational solutions, including methods, methods, techniques or procedures. The new concept aims to show the role of managing sustainable innovations in order to achieve a competitive position on the market. Nowadays, companies more often establish their competitive position against the background of competitors through the prism of sustainable development. This leads to minimizing the negative impact on the environment through the introduction of new technological solutions. Achieving such a competitive advantage is possible only through long-term planning towards product and process innovations that simultaneously implement the principles of sustainable development.

SOI in the strategic management structure

A company that plans to develop innovation must be ready to generate new solutions on almost every level of its operation. Therefore, when talking about the potential of SOI, one must mean all the company's attributes necessary to generate changes in the company's products and processes as well as the technologies used. In this regard, management of innovation based on sustainable development does not differ from innovation management. The term sustainability, however, introduces an additional condition. The implemented solutions are to be not only new but also environmentally friendly and human friendly. In this context, managerial choices should relate to determining the place of managing the SOI at the strategic management level of the enterprise. It should be decided whether the SOI should be treated as an action at the level of the organization as a whole or as a functional strategy supporting the implementation of the company's basic developmental goals. The target dimension at the level of the entire company directly refers to the durability of the enterprise, starting from a narrow financial perspective, i.e. the company's profit for a wider approach integrating the financial, environmental and social aspects. These three zones create strong relationships between each other.

It is essential not only to optimize one single element in a separate manner, but also to consider the subsequent impact on other systems. The economy is part of the social system, which in turn is embedded in the natural environment system. Companies that want to succeed on the wave of sustainable development must outperform their competitors thanks to the transformation of their strategy into stages. The fact that companies are founded and run for economic purposes requires

management to develop most of its societal engagement in relations to the economic goals of the corporation. Corporate sustainability strategies are therefore challenged to recognize both, market sustainability as well as social and environmental sustainability equally (Parnell 2008, pp. 35-35).

In order to compete effectively with the use of the sustainable development strategy, it is worth adopting a system approach, isolating and adjusting all necessary dimensions. Companies that are pioneers in the activities to maintain the balance of the planet, profit, people, often focus first on the reduction of risk and costs, and only after some time develop strategies for the growth of created value, which ultimately include such intangible factors as the brand and organizational culture. Lubin and Esty (2012, pp. 102-103) identify 4 stages of value creation that can be applied to systemic transformations related to the introduction of the concept of sustainable development into the management of a strategic enterprise:

1. Performing previous tasks in a new way.
2. Performing new tasks in a new way.
3. Transformation of the basic activity.
4. Creation and distinction of a new business model.

To create and implement SOI requires strategic management to identify, create and strengthen the links between social and environmental activities and business success. In order to achieve that the formulation and implementation of corporate strategies have to change. Effective implementation of the principles of sustainable development requires taking action also in the area of leadership, methods, strategy, management and reporting. In each of these areas, the company must change the approach of a tactical, ad hoc nature to a strategic, systematic and integrated approach. It is certainly necessary to pay attention to the market sphere and the way the company communicates with the market. Among clients with high social and environmental awareness it is necessary to build a proper company image not only by means of delivered products, but also by appropriate changes in the company's mission, proper PR policy and full information about the positive effects of implemented SOI solutions and other enterprises affecting the way the company operates .

In addition to the overall system dimension, decision-makers may choose a narrower dimension limited to the inclusion of the principles of equilibrium in the product life cycle. Traditionally, the development of products and services focuses more on immediate needs and thus on optimizing the main functions or specifications of the product. SOI takes into account these basic product attributes, eg through product safety, energy efficiency or durability. SOI management must go beyond the product use phase to focus on the entire physical life cycle from raw materials to the end of life ("cradle to grave"). In the context of sustainable development, the whole value chain is of key importance to innovation, to identify the main problems associated with sustainable development and to solve these problems at the source in which they arise (Maxwell and Van der Vorst 2003, 883-895). All stages of the product life cycle can always be considered with the same level of detail of the efforts undertaken to create innovation. Often, the analysis of innovative solutions leads to focusing on the most important stages, e.g. the phase of use of goods or the supply chain.

Towards new technological solution or new business model

Another strategic choice in the field of creating SOI in an enterprise is the selection of activities in terms of the concentration of efforts on technological innovations or innovations regarding the business model. The company must decide whether a potential innovation matches its current business model and its technological capabilities. In this context, incremental, disruptive and radical innovations are distinguished.

The answer to above question is important because we will not be able to effectively manage innovation if we do not capture its true character. If you choose an gradual path, incremental innovations are used that utilize the company's technological competences and match the current business model, and thus - to its current customer base and existing markets. Incremental innovations helps firms to stay competitive in the short-term. Most often they develop or improve existing products, services or processes. This applies to situations where, within the existing solutions, the principles of sustainable development are introduced into the area of the supply chain, production, packaging, use or at the stage of product withdrawal. Their common denominator is that they improve the efficiency of existing products measured by the size of parameters that have traditionally been valued by major clients in large markets (Christensen 2010, p. 21). Obtaining a competitive advantage

in the case of introducing SOI in this way is possible due to the increased market share. The development of routine innovations occurs most often thanks to the use of traditional market research, during which information from customers about their preferences and expectations is obtained. Many studies indicate that it is users of products and processes that are co-creators of this type of innovation sold on the market (Show 1985; Freeman 1968, pp. 29-57). Their source may be both internal own R&D works and skilful capture of signals coming from the market.

The decision to choose a disruptive innovation path is related to the need for a new business model, but not necessarily a technological revolution. The dissemination of this kind of innovation means undermining or distorting competitors' business models. The selection of breakthrough innovations for the implementation of SOI will help the company shift from its target market to the neighboring segments expanding new markets. It may happen that a smaller and less wealthy company can threaten companies with an established position. At a time when recognized companies focus on improving products and services for the most demanding and often the most profitable customers, they overestimate the needs of some segments of buyers and ignore the needs of others. This allows you to open the way to other players who turn out to be breakthrough innovators, starting from successfully reaching the omitted segments. Disruptive innovations are created on two outposts: in the lower segment of the current market or in completely new niches. When recognized companies are focused on achieving higher profitability in more demanding segments, they usually do not react quickly to the actions of new rivals who focus initially on supplying clients from the lower market segment. Later, innovators are moving towards the higher segments of the market, offering the utility value demanded by the basic customers of recognized companies. Enterprises trying to develop breakthrough innovations of products or services face a much greater challenge than is the case in routine innovations. In addition, it takes time for consumers to understand the benefits of breakthrough products and gain significant sales increases.

While disruptive innovation is inextricably linked to variations of business models and low-end market encroachment, radical innovation is reliant on organizational capabilities and individual and organizational human capital.

If we decide on more radical changes that require new technological competence, we are talking about radical innovation when the novelty is only about technology. Radical innovation is characterized by the development of new products and services for markets that do not yet exist (Goffin and Mitchell 2017, p. 13). They are the rarest because they create a new business and major new categories or completely redefine the competitive environment. Penc defines radical innovation as changes that trigger profound transformations within a given organization or market and bring about fundamental changes to the competitive forces in the industry. They break the existing structure of the organization so that it is able to respond to new demands of the environment or internal needs, for the satisfaction of which the gradual adaptation is insufficient (Penc 1999, p. 181). The concept of radical innovations was defined by Christensen (2010), who described it as innovations that have a significant impact on the market and its operating entities - both businesses and consumers.

For disruptive innovation, the key to organizational renewal may lie in the needs of the customers, whereas for radical innovation, it may lie within the capabilities of the incumbent firm itself. To mistake one for the other may in fact do more harm than good (Hopp et al. 2018). Radical innovation focuses on long-term impact and may involve displacing current products, altering the relationship between customers and suppliers and creating completely new product categories. Radical innovations completely transform the way firms engage with the marketplace and they require completely new technical skills and organizational competencies by firms pursuing this path.

The choice of an innovative strategy should concern the indication of how particular types of innovation fit into its business strategy and specify the resources that these innovations must be allocated. Contemporary reflection on innovation often presents radical and breakthrough innovations as engines of growth and diminishes the importance of routine innovations, treating them as a short-sighted one. This approach may be wrong, because a significant part of the company's profits are generated by routine innovations. There is no single preferred type of innovation that is dedicated to SOI, but rather different types of innovation can be complementary rather than substitute over time. With each selection, managers should anticipate the opportunities and threats that accompany them. In the perspective of the whole, the mix of different types of innovations, their proper balancing and selection should be indicated more. Enterprises operating on the market, where technologies change very fast, will have to bet on radical technological innovations. However, a company whose main area of activity enters the phase of maturity will look for new opportunities using innovations in the area of

the business model. As part of the innovation strategy, managers also face the choice of distributing resources for particular types of innovation. In this respect, decision-makers should take into account the specificity of the company, the strengths of the organization, the pace of technological change, the size of the technological opportunity, the intensity of competition, the growth rate in the core markets, the degree of meeting the needs of customers.

Conclusion

Currently, many managers and business owners are becoming more and more aware of the growing role of the concept of sustainable development, which in the future may be the basis for achieving a competitive advantage. The choice of this direction requires taking many managerial decisions towards the creation and implementation of Sustainability-oriented Innovation. In spite of this, many decision-makers are throwing themselves into the turnstone of initiatives without a holistic vision or thought-out action plan. Creating SOI and appropriating the value from its implementation becomes the goal of the company's innovative strategy and one of the basic problems of modern strategic management. Executives must make a strategic choice in value creation with the choice of the value chain logic, according to which the values from the creation and implementation of SOI bring benefits to the company and value logic for the client who draws from innovations created on the principles of sustainable development. SOI can create value for the client in many ways. It can improve the product's performance, make it easier to use, more convenient, more reliable, more durable or cheaper. The choice of the type of value that innovation will make and adherence to this choice is of great importance, because the abilities required to create particular types of values are quite different, and their collection requires time.

Understanding what strategic choices they face may help to create innovation strategies and systems necessary to gain a competitive advantage based on the principles of sustainable development. Managers should be aware that each innovation strategy needs to be evaluated and verified by the changing market realities, technologies, regulations and competitors. On this way to such a future, the companies that will make the right strategic choices will be at the forefront, otherwise they will be pushed to the side track.

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WHEN IS A CHANGE COMMUNICATED? – RESEARCH OUTCOMES FROM POLISH COMPANIES

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Abstract: Changes to the current business environment are inevitable. Preparing for change becomes an everyday duty, not a ‘Christmas’ style event. The importance of informing about organizational change before introducing changes is emphasized. This information advance should serve as preparation for change. Communication should be pre-emptive in anticipation of the anticipated changes and it should also contain full and explicit information before changes are made. The aim of the study is to diagnose when communication causes of changes in communication in the Polish profit-making enterprises. CATI and CAVI surveys were the methods applied. The research sample concerned medium and large enterprises and was representative. According to the findings, only 9.9% are informed about a change long before it happens, while 51.6% find out about a change while it is happening.

Keywords: communication, change, organization, organization behaviour

Introduction

Organizational change has become an area of focus in organization change and internal communication literature. The importance of communication during intended change has been empirically demonstrated and commonly agreed among practitioners. Moreover, communication is considered to be vital for the effective implementation of organizational change, great uncertainty and active rumors arise in cases of organizational change that were communicated badly (DiFonzo, Bordia 1998 p. 301).

Some research, like that of Michael Beer and Nitin Nohria (2000, p. 88-95) indicates a failure rate of one third to two-thirds of major change initiatives and even more pessimistic results were noticed by Bernard Burnes (2004) and Jason Cope (2003; 2011) with a failure rate of up to 80 to 90 percent. Researchers have also found that at least half of all the organizational change programs do not achieve the results which they intended to produce (Bennebroek *et al.* 1999 in Husain 2013, p. 43).

Communication during intended change

The organizational change and communication process are inextricably related processes (Lewis, 1999). To communicate the change in advance seems to be important as far as managing employees are concerned, in order to prepare people to forthcoming change (Kotter, 2007, p. 8).

Failures in change introduction happen either because of its inadequate preparation, improper change communication – insufficient information, improper communication channel, misinformation of employees, poor information, or an incomplete message (Lorenzi, Riley, 2003).

Research method

This study used primary sources. For the purpose this research the questionnaire was put together in the Polish Language. There was consultation in academic society by representatives of the discipline and revised by six competent judges – professors, who are considered in the country as best in the discipline. They introduced some modification to enhance clarity. The question was of close type with three cafeteria answers. It was then pilot-tested on different employees samples and then officially during final examination. The survey was conducted in April 2015 – January 2016 *via* phone by workers trained to facilitate data collection. The cohort of employees was then drawn. The companies taken to the survey were randomly drawn proportionally to the number of certain business branches in the country (Statistic Polish Yearbook).

The questionnaire was divided into two parts. In the first part, employees were requested to respond to general and demographic questions about their gender, age, seniority and position in the company. Only middle (50-249 people) and large (more than 250 people) companies were under investigation.

The second part provided specific questions on the types of communication employees use. Three issues were of interest to the survey – the sender of the message, who initialized the communication process; what is the information content of the message, and finally which method is the most frequently used to communicate in the company.

After collecting data the statistician was engaged to ensure proper data processing. Data were coded and processed into SPSS, a statistical package system. Results were analyzed and summarized, in order to draw conclusions and make recommendations.

Research results

A total of 2274 people participated in the survey on communicate patterns as organizational behavior out of 297 companies (production, service and trade). In terms of gender, the sample population comprised 64, 17 percent male and 35, and 83 percent female. The 76, 04% of questioned employees do not manage people at all (directly or indirectly). The age of respondents differed significantly – there were 6 age groups: below 25 years old, 25-34, 35-44, 45-54, 55-64 years old and 65 and more. Each group respectively consisted of: 5.68% respondents, 36.43%, 32.19%, 15.20%, 9.98% and 0.52%, respectively. The seniority break-down at work (seniority in the company in which currently employee works) was 11.24% works shorter than one year, 31.67% works 1 to below 5 years, 25.62% works 5 to below 10 years, and 31.48% works longer than 10 years. As far as departmentalisation is concerned, the 7 typical departments were recognized, repeated in almost every company - like the Selling & Promotion Department, Law, HR, Finance & Accounting, Administration, Production and Customer Service Departments. The 8th category, named 'Other Specialists' gather specialists in narrow fields connected with that branch represented by organization.

In investigating significant difference, the Pearson Chi-square test of independence was used. If the Chi-square results are significant, post-hoc analysis is then conducted for identifying significant differences at the 0.05 level. The outcomes of the research are presented on the illustrations below.

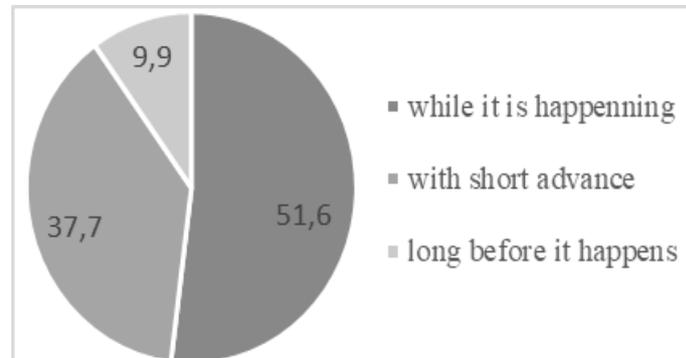


Figure 1. Time when employees learn about changes introduced into organization

Source: own research

Most of the employees – 51.6% are informed about the organizational change while it is happening (Figure 1). Only 9.9% declare that they know about the change long before it happens. Unfortunately, less than half of the employees know about the change 48.4% – no matter whether the advance of communicating the change is long or short.



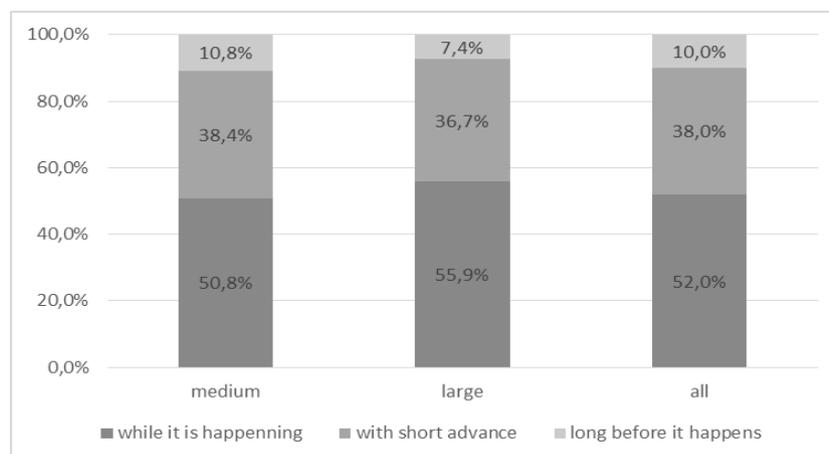
$p = 0.117$; Pearson's chi-square = 0.000; Cramér's $V = 0.082$

Figure 2. Time dimension versus company's branch

Source: own research

In figure 2 above, the time of employee change communication is shown versus branch. Although this parameter turned out to be statistically insignificant, it may be noticed that employees from the service organization tend to answer that they knew about the introduced organization change in 14.7% which is almost twice as much as occurs in case of employees from production companies – 7.5%. Employees of trade companies say that in half of the cases they learn about change while it happens, but 41.0% of them know about a change with a short advance – and this is the highest score out of the three branches researched. The question arises if the trade branch itself imposes such behavior.

The time of change communication aspect versus a company's size is shown on the figure 3 below. If only calculation was only carried out with accuracy to two decimal places, the outcome might seem significant. That was the reason the third decimal place was employed. Nevertheless, it is significant that it can be noticed – no surprise though – that medium companies inform their employees about change more frequently than the large enterprises.

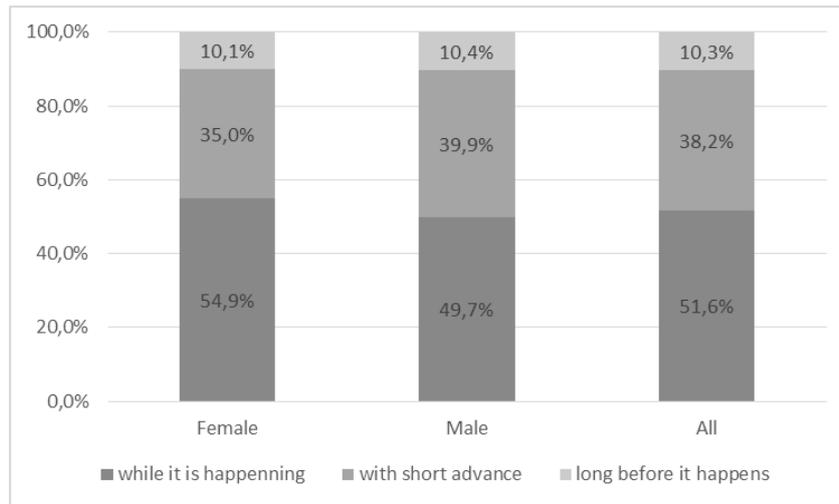


$p = 0.055$; Pearson's chi-square = 0.033; Cramér's $V = 0.055$

Figure 3. Time dimension versus company's size

Source: own research

The relationship of the change time versus employee gender, shown in figure 4 below, is statistically insignificant. Males more frequently answer that they learn about change with short advance than females – 39.9% male to 35.0% female but in the case of learning about the change at the very time of change it is that other way round – 49.7% male to 59.9% female. Unfortunately, there is a lack, as far as the strength of this dependence is concerned.

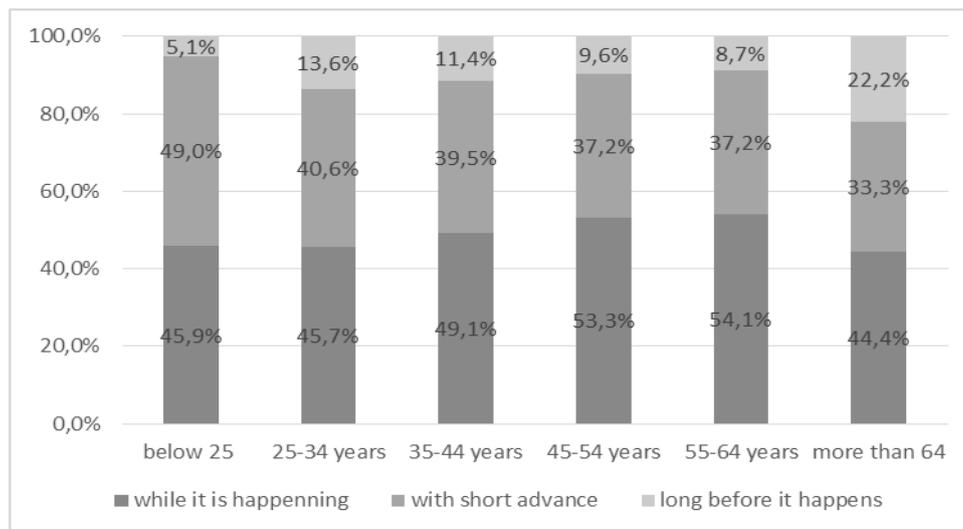


p = 0.050; Pearson’s chi-square = 0.059; Cramér’s V= 0.050

Figure 4. Time dimension versus company’s employee gender

Source: own research

Time relationship of the time of change introduction to the company versus employee age is shown on the figure 5, below. The age feature may be considered as a scale in order. However, the influence of the age on answers is again insignificant.

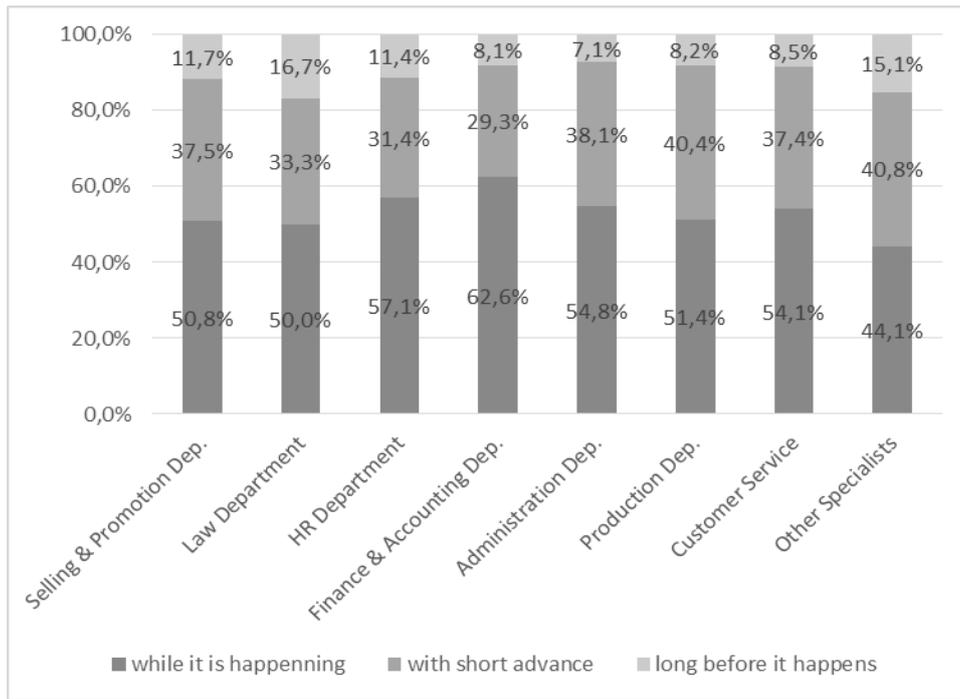


p = 0.095; Pearson’s chi-square = 0.117; Cramér’s V= 0.067

Figure 5. Time dimension versus company’s employee age

Source: own research

One must not fail to notice though, that seniors (over 64 years old) 22.2% declare that they know about the change long before it happens compared to the 5.1% of answers of employees below 25 years old. The second group of employees informed of the change in advance are people 25 to 34 years old – 13.6%. The cohort of “the less” informed are people 45-54 years old – they declare that they know about the change while it happens - 53.3% that is the highest score of all research results shown above.

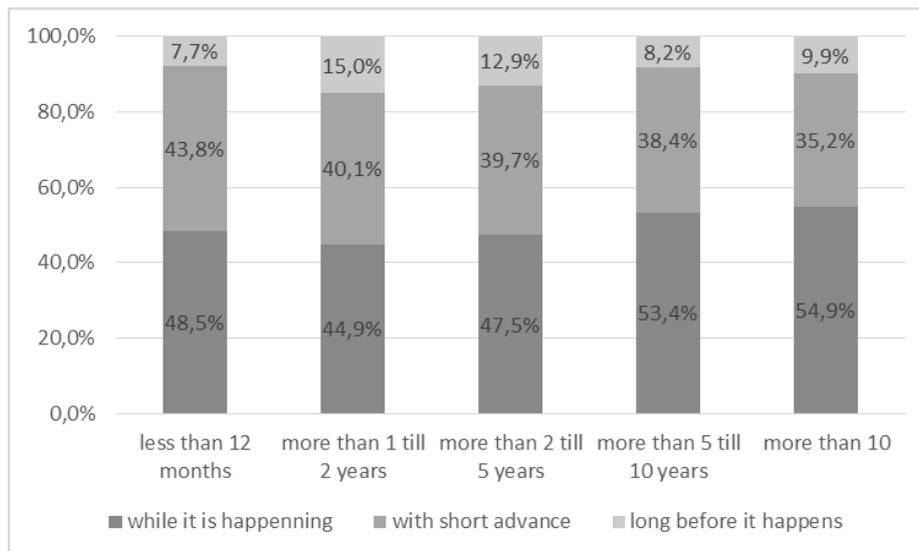


p = 0.122; Pearson's chi-square = 0.009; Cramér's V= 0.086

Figure 6. Time dimension versus company's departmentalisation

Source: own research

According to the research the best informed group are lawyers – they are informed of the changes in long advance in 16.7% of cases – shown in figure 6 above. Moreover half of this department's employees know about change in advance – long or short altogether. The Department of Finance and Accounting knows about the change while it happens in 62.6% of cases. It is also worth noticing that the group of specialists (Other Specialists) is also quite well informed – the lowest percentage of answers on learning about the change while it happens – 44.1%, the rest 55.9% indicates that they know about the forthcoming change in advance (short or long). The Administrative department declares that the lowest frequency of all departments in knowing about the change well in advance – 7.1%. Unfortunately the outcomes are statistically insignificant.



p = 0.099; Pearson's chi-square = 0.009; Cramér's V= 0.070

Figure 7. Time dimension versus company's employee seniority

Source: own research

The time aspect versus seniority of the company's employees is also statistically insignificant. The best informed are employees working more than one to two years – 55.1% with long and short advance: 15. % and 40.1% respectively. Those who work more than 10 years show that in 54.9% of cases they learn about change while it happens.

Discussion

The undertaken problem of informing employees about changes introduced in organizations is an important issue for organization management. The main objective of the study was to diagnose when communication about the planned change is made in Polish enterprises. This paper presents the results of research regarding only the time in which employees are informed about the changes being made.

On the basis of this research it is impossible to comment on causes of the outcome in a responsible manner – communicating a change while it is happening to 51.6% of employees, only the state may be presented. But of course it is a contribution for further research – eg. how many employees are invited to participate in change design.

Conclusion

As the conducted research has indicated a small part of Polish companies are informed in advance about upcoming changes. It is interesting to establish the cause. Not informing about the upcoming changes was usually considered in the literature as not preparing employees for change as well as the main cause of failures related to the introduction of changes.

Meanwhile, in this era of constant change, the warning about a change seems to be unnecessary and ineffective. It looks like it has become unnecessary, because it is known that changes must occur, ineffective, because the change information provided in advance becomes quickly out of date, which can cause frustration and the necessity for constant updating the change data and information with subsequent messages on a regular basis.

A question for further research arises: is such constant organizational change as well as the state of permanent change ubiquitous and therefore no special preparation for a change is needed, since the changes take place every day.

On the other hand 'It is a rare CEO who knows in advance the fine-grained details of organizational change (...)' (Beer, Eisenstat, Spector 2006, p. 113).

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THE USAGE OF OPTIMIZATION MODELS IN FARM MANAGEMENT

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Abstract: The purpose of this article is to indicate the possibility of using optimization models in farm management. Farm management requires making difficult decisions that mainly result from the stochastic nature of production. In addition, the sustainable development of a farm has to realize three objectives: productive, economic and ecological, and maintain a balance between them. Production tasks involve manufacturing agricultural products with qualities required by the consumers or the processing industry. Economic actions are focused on the development of agricultural income that ensures the fair life of a farmer and his family and allows for farm development. Ecological goals aim at guaranteeing agroecosystem stability and prevention of the degradation of the natural environment. The tool for supporting farm management with sustainable development may be multicriteria optimization models. On the basis of the data about farms in Zachodniopomorskie Province, a multicriteria linear-dynamic optimization model was built, whose goal is the maximization of agricultural income and agricultural production and the minimization of losses of organic matter in soil. The optimal solution yielded a production structure allowing for the highest agricultural income under the given conditions, while also high quality production and no degradation of the natural environment.

Keywords: agricultural income, agricultural production, multicriteria optimization model, sustainable development

Introduction

Agricultural production is closely related to the natural environment. It is shaped by the weather, soil, agronomic or economic factors. The stochastic nature of these factors makes it so that management of an agricultural farm requires making decisions in unstable conditions. What's more, such decisions in a sustainable development farm are connected with realization of the production, economic and ecological goals, as well as with maintaining balance between them. Production goals encompass making agricultural products with properties required by the consumer or the processing industry. High quality of agricultural products on a sustainable development farm is acquired by using: certified seed, artificial fertilizers in limited quantities, integrated plant protection and adherence to the rules of proper agrotechnics and zootechnics. These rules are contained in the Code of Good Agricultural Practice (Duer, Fotyma, Madej 2004, p. 1–93), and their utilization facilitates rational organization of work and skillful farm management.

The economic effect of a farm depends on the quantity and quality of manufactured agricultural products. That is because economic action is focused on working out agricultural income that would assure a decent living for the farmer and his family, as well as allow for the farm's development.

In turn, ecological assumptions aim for guaranteeing stability of the agrosystem and prevention of natural environment's degradation (Watson et al. 2002, p. 239–247). This assumption is promoted by preservation of biodiversity, high index of soil coverage by vegetation, and a sustainable balance of organic substance in the soil.

Multi-criteria optimization models can be a tool supporting the management of a sustainable development farm. These models have found a wide range of applications in agricultural production as described by literature of the subject. Among others, Riesgo and Gomez-Limon (2006, p. 1–28) planned to use them to irrigate fields located in the Duero river valley in Spain. The model developed by Manos B. et al. (2013, p. 410–415) allowed for an increase in profitability of farms in the region of Thessaly (Greece), as well as a decrease in their fertilization and irrigation. In turn, Parlińska and Pietrych (2013, p. 321–326) created a multi-criteria model for choosing an agri-environmental package on a farm.

The aim of the article is to indicate possible utilization of optimization models for management of an agricultural farm. The optimal solution of this model will establish a production plan which will yield the highest, in given conditions, agricultural income, high quality production and will not degrade the natural environment.

Research method

The main research method of the work are optimization models. Mathematical model of a dynamic, multi-criteria optimization model, adopted for the needs of a farm with a plant profile, takes a form of (Krawiec 1991, p. 122):

$$ax(t) \leq b(t) \text{ limiting conditions} \quad (1)$$

$$x(t+1) \leq x(t) + f_t [x(t), u(t)] \text{ dynamics equations} \quad (2)$$

$$F = \max \{F_1, F_2, F_3\} \text{ control criterion} \quad (3)$$

$$x(t) \geq 0, u(t) \geq 0 \text{ boundary conditions} \quad (4)$$

where: t – states (consecutive years of farming), $t = 0, 1, 2, \dots, k$,

a – technical and economic parameters' vector,

$b(t)$ – subsequent states' limits vector,

$x(t)$ – state vector,

$u(t)$ – control vector,

The F_1 goal criterion regards gross agricultural income and is expressed with equation:

$$F_1 = \sum_t [m(t)^T u(t) + w(t+1)^T x(t+1)] \rightarrow \max \quad (5)$$

where: $m(t)$, $w(t+1)$ – individual income vector for variables control and state denoting commodity activity or individual outlays incurred by farms involved in non-commodity activity.

F_2 is a control criterion maximizing production volume, it takes the form of:

$$F_2 = \sum_t [g(t)^T u(t) + k(t+1)^T x(t+1)] \rightarrow \max \quad (6)$$

where: $g(t)$, $k(t+1)$ – individual efficiency vector of variable control and state in subsequent years;

The F_3 function maximizes the soil organic substance's amount:

$$F_3 = \sum_t [o(t)^T u(t) + p(t+1)^T x(t+1)] \rightarrow \max \quad (7)$$

where: $o(t)$, $p(t+1)$ – vector of individual reproduction rates or soil degradation for state and control variables.

The multicriteria optimization model could be solved with goal programming. Its creators are Charnes and Cooper (Charnes, Cooper 1961, p. 359–365). This approach incorporates solving a constructed model separately due to each criterion. After acquiring optimal results, each goal function is treated as the model's separate limiting condition in the form of:

$$m(t)^T u(t) + w(t+1)^T x(t+1) = dr \quad (8)$$

$$g(t)^T u(t) + k(t+1)^T x(t+1) = pr \quad (9)$$

$$o(t)^T u(t) + p(t+1)^T x(t+1) = so \quad (10)$$

where: dr – the greatest agricultural income value acquired from a single-criterion model's solution.

pr – optimal agricultural production volume acquired from a single-criterion model's solution.

so – the amount of organic substance retained in the soil, acquired from a single-criterion model's optimal solution.

All of these conditions include a restrictive limitation of equality type that should be weakened. A complete equality's weakening is called transformation which includes variables of deficiency (u^-) or excess (u^+) expressing the achieved values' non-fulfillment volume in single-criterion models. After transformation, the added limiting conditions will take on the form of:

$$m(t)^T u(t) + w(t+1)^T x(t+1) - u_1^+ + u_2^- = dr \quad (15)$$

$$g(t)^T u(t) + k(t+1)^T x(t+1) - u_3^+ + u_4^- = pr \quad (16)$$

$$o(t)^T u(t) + p(t+1)^T x(t+1) - u_5^+ + u_6^- = so \quad (17)$$

Next, many criteria are replaced with a single distance function describing the costs (penalties) of deviations from the target values. This functions includes both variables regarding agricultural income and agricultural production deficiency or excess, as there are no specific recommendations on how to achieve them. However, the soil organic substance deficiency must be minimized so as not to degrade the natural environment. The distance function will take on the form of:

$$F = u_1^+ + u_2^- + u_3^+ + u_4^- + u_6^- \rightarrow \min \quad (18)$$

Research material

The research mainly uses the data from CSO (Central Statistical Office) (GUS 2016b), related to agricultural farms of the Zachodniopomorskie voivodship in the years 2013–2016. The research does not account for husbandry farms. The number of husbandry farms in the Zachodniopomorskie voivodship has been going down year by year, and in 2016 only about 11,5% of farms bred cattle and about 7% bred pigs. Table 1 contains selected data on agriculture in the analyzed voivodship.

Table 1. Basic characteristics of the average farm Zachodniopomorskie voivodship

Specification	Statistics in years			
	2013	2014	2015	2016
Number of farms	29062	31551	30454	29646
Area of the farm (ha)	30,67	28,27	28,78	28,97
Sown area (ha)	26,07	26,80	27,40	27,15
Structure of sown (%) of which:	100,00	100,00	100,00	100,00
cereals	63,40	61,70	59,60	61,30
pulses for grain	3,00	4,30	7,00	5,00
rape	19,00	20,30	19,60	17,00
root plants	13,00	12,00	12,10	11,80
other crops	1,60	1,70	1,70	4,90
Yields (dt/ha): cereals	44,30	50,20	47,60	43,50
pulses for grain	21,10	18,10	18,50	18,20
rape	32,50	37,50	30,10	24,50
potatoes	243,00	309,00	306,00	340,00
sugar beets	630,00	726,00	578,00	798,00
Procurement prices (zł/dt): cereals	68,38	63,97	60,52	57,58
pulses for grain	90,00	89,00	77,00	75,00
rape	154,48	130,21	149,86	162,56
potatoes	37,39	31,22	28,77	27,88
sugar beets	16,84	12,25	11,98	11,85
Mineral or chemical fertilizers (kg/ha)	136,80	117,30	110,40	131,90

Source: own study based on data from CSO

The average employment on an agricultural farm of the Zachodniopomorskie voivodship with an area of 20–30 ha in 2016 amounted to 2,35 people contributing their work to the farm.

The acquired data constituted or enabled calculation of technical and economical parameters, second terms and coefficients of the objective function (unit production and income volumes) of a multi-criteria optimization model.

Construction of a multi-criteria, linear-dynamic model of an agricultural farm

For an average agricultural farm of the Zachodniopomorskie voivodship with a plant profile in the years 2013–2016, a multi-criteria model with 48 state and control variables, 55 limiting and dynamic conditions, as well as 3 goal functions was constructed. Limiting conditions of the model in each researched year made up a linear programming model. These models were connected by plant rotation, that is by means of dynamics equations known also as binding conditions. Crop rotation (field I: sugar beets, potatoes, oats; field II: wheat, barley; field III: triticale, rape; field IV: rye, yellow lupine, other crops) guarantees good plant coverage of the land and timely performance of agricultural procedures. After the harvest of rye, sowing of winter crops was planned.

In order to reflect the processes occurring on an agricultural farm as accurately as possible, the models were equipped with a series of conditions ensuring internal consistency (crop structure balances, plant rotation, fertilization, using the existing employment).

Parameters of the first goal function, unit agricultural income were all calculated as the difference between production value (price \times crop) and production cost (Augustyńska-Grzymek 2012, p. 20–52). The acquired income was increased by direct grants (uniform area payments, payments: for greening, for growing legumes and sugar beets).

Coefficients of the second goal criterion constituted the yields of individual crops.

In order to determine the parameters of the third goal function, the coefficients of reproduction and soil degradation of organic substance according to Eich and Kindler were used (Duer, Fotyma, Madej 2004, p.88). The coefficients of degradation and reproduction describe the level of complexity or enrichment of soil with organic substance (with tha-1) when growing a given species of plants or using a specific dose of organic fertilizers.

Optimal solution of an agricultural farm's multi-criteria model

The solution to the constructed multi-criteria model of an agricultural farm was preceded by a solution to 3 single-criterion models (1st stage of purposeful programming). Model I maximized the agricultural profit, while model II maximized the scope of production, and model III minimized the losses of organic substance in the soil. Table 2 contains these models' solution results.

Table 2. Optimal solutions for single-criterion models

Variables	2013	2014	2015	2016
Model I				
Sown area (ha))	27,10	27,10	27,10	27,10
wheat (ha)	3,93	4,37	4,23	4,13
barley (ha)	8,27	0,78	0,38	1,02
rye (ha)	3,25	3,52	9,76	2,44
oats (ha)	1,63	1,35	1,90	8,94
triticale (ha)	-	6,78	-	0,00
rape (ha)	5,15	5,42	5,15	4,61
potatoes (ha)	0,54	0,54	0,54	0,45
sugar beets (ha)	2,98	2,71	2,71	2,80
yellow lupine (ha)	0,81	1,08	1,90	1,30
other crops (ha)	0,54	0,55	0,54	1,41
aftercrop (ha)	3,25	3,52	3,25	2,44
Agricultural income (PLN)	277651,49			
Model II				
Sown area (ha)	27,10	27,10	27,10	27,10
wheat (ha)	3,93	4,37	4,23	4,13
barley (ha)	8,27	0,78	0,38	1,02
rye (ha)	3,25	3,52	9,76	2,44
oats (ha)	1,63	1,35	1,90	8,94
triticale (ha)	-	6,78	-	0,00
rape (ha)	5,15	5,42	5,15	4,61
potatoes (ha)	0,54	0,54	0,54	0,45
sugar beets (ha)	2,98	2,71	2,71	2,80
yellow lupine (ha)	1,35	1,63	2,44	2,71
other crops (ha)	-	-	-	-
aftercrop (ha)	3,25	3,52	3,25	2,44
Agricultural production (dt)	11982,86			
Model III				
Sown area (ha))	27,10	27,10	27,10	27,10
wheat (ha)	3,93	4,37	-	4,13
barley (ha)	8,27	0,78	4,61	1,02
rye (ha)	3,25	3,52	9,76	2,44
oats (ha)	1,63	1,35	1,90	8,94
triticale (ha)	0,00	6,77	-	0,00
rape (ha)	5,15	5,42	5,15	4,61
potatoes (ha)	3,52	0,54	0,54	3,25
sugar beets (ha)	0,00	2,71	2,71	-
yellow lupine (ha)	0,81	1,63	2,44	1,41
other crops (ha)	0,55	-	-	1,30
aftercrop (ha)	3,25	3,52	3,36	2,44
Organic substance amount (t)	27,14			

Source: own calculations using the MATLAB program

Optimal solutions to single-criterion models of an agricultural farm differ slightly in terms of crop structure. Their goal functions were written into the multi-criteria model as additional limiting conditions. The second terms of the limits are the income, agricultural production volume and the amount of organic substance in the soil as obtained in solutions to the single-criterion models (values from table 2). Table 3 contains the multi-criteria model's solution results.

Table 3. The optimal solution of the multi-criteria model

Variables	2013	2014	2015	2016
Sown area (ha)	27,10	27,10	27,10	27,10
Wheat (ha)	3,93	4,37	1,65	-
Barley (ha)	8,26	0,78	2,95	5,15
Rye (ha)	3,25	3,52	9,76	2,44
Oats (ha)	1,63	1,36	1,90	8,94
Triticale (ha)	-	6,77	-	-
Rape (ha)	5,15	5,42	5,15	4,61
Potatoes (ha)	0,54	0,54	2,11	0,45
Sugar beets (ha)	2,98	2,71	1,14	2,80
Other crops (ha)	0,10	0,55	0,54	1,30
Yellow lupine (ha)	1,26	1,08	1,90	1,41
Aftercrop (ha)	3,25	3,52	3,50	2,44
Agricultural income (PLN)	274071,05			
Agricultural production (dt)	11450,01			
Organic substance amount (t)	26,00			

Source: own calculations using the MATLAB program

The area of some crops in the multi-criteria model's solution differs from the area occupied by these plants in the single criterion models' solutions. Whereas the goal criteria were only slightly reduced. Agricultural income in the analyzed period decreased by 1,29%, agricultural production by 4,45%, and the amount of organic substance in the soil by 4,19%. Moreover, the solution shows that the researched farm had significant reserves of workforce, even during a period of increased demand. During harvest, the farm had 319,6 working hours (17days × 8h × 2,35 people) at its disposal, and during harvest of root crops - 470 working hours (25days × 8h × 2,35 people). Performing field work during those periods, e.g. in 2016, required utilization of 209,16 and 309,62 working hours respectively.

Conclusion

Review of the literature indicates that the rules of sustainable development in farming were the subject of many authors' analyses (Kostov, Lingard 2004, p 565–579, Davidova et al. 2009, p. 733–744, Matuszczak 2013, p.101–119, González-Sánchez 2016, p.387–408, Žmija 2017, p. 149–151). In this work, an attempt was made to use a multi-criteria, linear-dynamic optimization model for management of an agricultural farm with sustainable development in the Zachodniopomorskie voivodship. This management is closely related to realization of the economic, production and ecological goals. The mean, annual agricultural income obtained in the solution was 68517,76 PLN (274071,05/4) which is 5709,81 PLN monthly per 2,35 people. EU subsidies had a significant impact on the amount of this income. The mean monthly net salary (measure comparable to agricultural income) in the Zachodniopomorskie voivodship in the enterprise sector (GUS 2016a) in 2016 was 2815,55 PLN, about 400 PLN higher than that on an agricultural farm. Moreover, it is possible to acquire subsidies from agri-environmental programs for the development and modernization of agricultural farms.

Plant rotation had a significant influence on the production structure obtained in optimal solutions. The assumed plant rotation allowed for timely performance of agrotechnical procedures and good coverage of soils with vegetation, even during winter thanks to winter crops (rapeseed, rye, triticale, winter barley, stubble crop). The amount of crops in each year (9–10) testifies to maintaining biodiversity on the farm. The plants acquired nutrients crucial for development mainly from plowed straw and stubble crop (Pikuła 2015, p. 85–96). Moreover, stubble aftercrop performed a phytosanitary role, that is it replaced chemical plant protection products. Thus acquired agricultural produce is characterized by high quality (Brand, Molgaard 2001, p.924–931).

A positive balance of organic substance in the soils was obtained in the solution to the agricultural farm's multi-criteria model. Providing an excessive amount of organic substance to the soil is not recommended, either, as it may cause pollution of groundwater and surface water with biogens (Watson et al. 2002, p. 243). The model's solution indicates that, on average, 0,24 t/ha (26t/4/27,1) of organic matter, mainly originating from straw of cereal and rapeseed, and catch crop, was annually transferred into the soil. This amount will not cause water pollution.

The acquired results indicate that multi-criteria optimization models can be a useful tool to support the management of a sustainable development agricultural farm.

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STORYTELLING AND ITS IMPACT ON EFFECTIVENESS OF ADVERTISING

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Abstract: Nowadays, it is recognized that consumers expect brands not only to have basic functions, but also emotions, experiences and values which they can identify with. For this reason, interesting stories can be noticed in commercials, referred to as storytelling. The aim of the article is to analyze the possibilities of using storytelling as an activity increasing the effectiveness of an advertising message based on the available results of research related to its perception. In the article the cognitive-critical method of analyzing the subject-related literature has been applied. The authors outline the basic conditions for applying storytelling and trends related to the structure of advertising stories, and present selected research results related to the assessment of its impact on the recipients of the message. These results show the high performance of advertisements using storytelling.

Keywords: advertising, advertising message, advertising effectiveness, storytelling

Introduction

With the development of competitive phenomena in modern markets, the need to look for more and more effective marketing communication tools is increasing. On the one hand, they evolve towards the use of more and more technically advanced communication channels, and on the other one towards making the content of the messages more attractive (Wiażewicz, Zatwarnicka-Madura 2016, Zatwarnicka-Madura 2017, Witek 2016). One of such solutions is storytelling which is identified with narrative advertising. Its significance increases especially in times of widespread crisis of trust in advertising - thanks to its authenticity it influences the realignment of the transmitted content.

The term storytelling was formulated in 2003 by Henry Jenkins. Jenkins referred to the definition of a new way of telling stories using different types of media, methods and viewpoints. It is a form focusing on the message contained in many communication channels where there are various but mutually complementing contents ultimately outlining an extensive message composed of several interacting elements. In the understanding of Jenkins, transmedia storytelling is also a skillful reference to other stories, motifs or characters and their location in the stories they create. In this context storytelling is a way of communicating a particular idea with the use of narrative, focused primarily on stimulating the attention of the recipient in the multitude of messages reaching him, increasing practically from day to day (Mistewicz 2011, p. 16; Czarniawska 1997, p.17-23). The content can change, mainly thanks to the audience inspired by it, who add new threads, thus influence the development of the story.

The aim of the article is to analyze the possibilities of using storytelling as an activity increasing the effectiveness of an advertising message based on the available results of research related to its perception. The authors outline the basic conditions for applying storytelling and trends related to the construction of advertising stories, and present selected research results related to the assessment of its impact on the recipients of the message.

Storytelling – a story structure and trends

Storytelling has been part of human culture for thousands of years. It is a powerful and an enduring means of communication (Alterio 2003). Signs of storytelling were found in the Pyrenees Mountains, in the Lascaux Caves dating 15,000 to 13,000 BC (Lockett 2007). Signs of storytelling can be found in all primitive and ancient cultures. In the absence of written language, older cultures used animal skins, cave walls, stones, wood and even sand to draw, communicate and preserve their stories with pictures and symbols. Some of the earliest stories focused on epic events as can be found in the early civilizations of Greece and India.

Green et al. (2015, p. 112) define storytelling as "oral communication, structured around a logical sequence of events, utilizing human and/or animal characters, with personalities and emotional qualities, presented with voice, gesture and facial expression". Storytelling or the narrative approach is increasingly becoming a core element in influence processes such as education, teaching, leadership, culture, history, marketing and its facets and a whole range of other functionalities across the multitudes of human activities (Kadembo 2012, p. 221). Yang (2013, p. 146) found that by triggering emotional reactions, "storytelling is more persuasive than statements or quantitative information". Storytelling in a logical and coherent way presents and organizes consecutive facts, beginning with the introduction of the events (stories), through orientation, complication to the end solving the existing problem (Labov 1997, p. 207-215). Interactions between the characters of a story build its attractiveness in the eyes of recipients. The story itself is the basic way to convey its own perspective and perceived values. It enables the transfer of complex emotions thanks to its structure. The narrated stories focus on the emotional aspect, not the rational one. The emotional aspect of the story is effective due to the characteristics of consumers (Byun 2016). Most of the content stored in human consciousness is associated with a series of short stories, and is not fragmentary (Hong Kun, Byueong-hyun, Jae Young 2017, p. 288). At the same time, as Stafford and Day write (1995, p. 57) "Whether the message is categorized as emotional versus rational, thinking versus feeling, or transformational versus informational, its effectiveness is believed to depend on whether brand choice within a product class is logical and rational or based largely on affect". Hence, developing adequate typologies of message appeals has been viewed as important for devising product advertising strategy (Padgett, Allen 1997, p. 54).

Nowadays storytelling can be considered as one of the strategic tools of market communication allowing harmonious and consistent in essence transferring the idea in such a way as to stand out from other similar products or services, while building a positive image of the brand (Fog et al. 2013, p. 43) referring to emotions (Stopczyńska 2016, p. 322). For this purpose, various archetypes of myths associated with brands are used (Kosson 2014, p. 176-206).

Storytelling is used in ads around the world, but to different degrees. The research company (Kantar Millward Brown 2017) conducted research in 14 countries on mainstream TV. Overall, 42% were 'story' ads; but this varied widely by country. In Brazil, Kenya, Poland, the UK, and the US stories were used in over 50% of ads. In Australia, China, and South Korea stories were used in under 30% of ads. On both Facebook and YouTube the proportions were similar with 39% being story ads.

Story is an oral or written performance involving two or more people interpreting past or anticipated experience (Boje 1991, p. 111). In this definition, stories do not require beginnings, middles, or endings, as they do in more formal and restrictive definitions (Bruner 1990, pp. 43-59; Gepbart 1991, p. 35, Boje 1995, p. 1000).

Narratives make things easier to remember and understand (Baddeley 1999; *Storytelling...*). Words can trigger memories and emotions. Just verbally describing an intense situation is enough to activate areas of the brain that deal with emotional responses (Wallentin et al. 2011). Listening to a story activates the brain areas involved in imagining scenarios (Abdul Sabar et al. 2014).

Quesenberry and Coolsen (2014, p. 437-454) conducted a two-year analysis of 108 Super Bowl commercials to investigate what makes an ad successful. They realized that the success of 30-second commercials is the result of using the scheme of five-act Shakespeare plays. Already in 335 B.C., Aristoteles began to develop dramatic theory, and his theories were expanded by German novelist and play writer Gustav Freytag, into what is known as Freytag's Pyramid used by Shakespeare and others. This Pyramid consists of 5 acts: exposition, complication (rising action), climax, reversal (falling action), and a dénouement (moment of release). Analysing the Super Bowl commercials, Quesenberry and Coolsen found that ads with more acts (a more complete story with a plot) achieved higher ratings.

According to Znanewitz, Gilch (2016, p. 32), there are the following criteria for effective storytelling in marketing:

- The right story (true core) - The story must represent the core of the organization. Best based on the history of the organization, or from experiences of its members or other stakeholders;
- Entertainment and excitement - Aligned with up-to-date trends that are relevant to the target group;
- Uniqueness - Different from the marketing stories of other organizations;
- Conciseness - Can be summarized in a few sentences;
- Simplicity - The story is simple, not too complex. Stringent plot, sparse details, letting the recipient be a co-creator;

- Connectivity - Gaps, open ends, incomplete background information, so as to let the recipient become a co-creator;
- Brand persona - Use archetypes for quick and easy connection with the audience. An archetype has to fit the brand personality.

From video to VR, social media and beyond, there is a host of mediums through which a brand can tell their story - and many ways to do so. One can distinguish 6 storytelling trends marketing leaders should know about (www1):

- Data-driven storytelling. It is predicted that by 2020, 1.7 megabytes of data will be created every second, for each person on earth. Digital data will create sophisticated stories, and it will be extremely efficient. The data to create visually stunning stories will be able to process information much faster, and brands will be able to grab attention;
- Mini-ads. To be competitive in today's digital landscape, companies are considering innovative ways to connect with consumers and deliver their message as part of their digital strategy. A visual medium keeps on growing amongst marketing teams as a way to tell the tale of a brand or product. Companies actively using video benefit from 41% more web traffic than non-users;
- Customer-led storytelling. Consumers have various platforms to share their thoughts and opinions. 92% of people admitting to trust them in traditional advertising claim that the brand should provide customers with an opportunity to tell their stories. This will help to increase engagement, build trust and hugely expand the reach;
- Philanthropic storytelling. Customers require transparency and want to know more about companies, how they run business, how they treat their employees, how handle their products. Therefore, brand storytelling needs to be clear, concise and honest;
- Immersive storytelling. According to over 200 million virtual reality headsets will be sold by 2020. Augmented reality is becoming an interesting tool for brands to convey their message and get people invested;
- Dark social. It's this type of social sharing that can't be tracked accurately, for example, the data that isn't registered up by web analytics platforms.

Research on the effectiveness of storytelling in advertising - review-of-Literature

Numerous studies on narrative advertising and storytelling show their effectiveness in influencing the recipient. Ads that tell stories are able to involve and entertain consumers and, more important, are able to communicate and model how products may be used to create meaning (Escalas 2004). A variety of research has been done related to this issue, among others: drama ads (Deighton, Romer, McQueen 1989), narrative processing (Escalas 2004; Adaval, Wyer 1998), narratives vs. self (Escalas, Bettman 2000; Polkinghorne 1988).

Research on the effectiveness of storytelling shows that its use has a positive effect on selected communication and behavioral effects, in particular on (Hajdas 2011, pp. 121; Smith 1995; Tun 1989; Polyorat, Alden, Kim 2007; Adaval, Wyer 1998; Matilla 2000):

- awareness of the advertisement - a narrative advertisement, i.e. the one that gives information about the product in the form of a story, generates higher indicators of the awareness of the advertisement than a physical advertisement, that is, providing facts or direct descriptions of product features and benefits;
- perception of quality - narrative advertising builds a more positive perception of the quality of services and products than physical advertising;
- attitude towards advertising - narrative advertising builds more positive attitudes than physical advertising;
- shopping intentions - narrative advertising builds higher purchase intentions of services than physical advertising and higher purchase intentions of products;
- engagement in the content of advertising - narrative advertising builds a higher commitment to its content than in-kind advertising.

Based on the results of research, M. Górska claims that "advertisements containing the form of a story in the visual layer were better evaluated and remembered by the respondents. Therefore, the best degree of agreement between the level of verbal and pictorial narrative is the best" (Szewczyk 2010). Other research outcomes showed that even a short brand story included on FMCG packaging had a

positive impact on consumers' affective, attitudinal, product value, and behavioral intention responses to the brand (Solja, Liljander, Söderlund 2018; Cholewa-Wójcik, Kawecka 2015).

The results presented by Simanjuntak, Napitupulu i Situmeang (2016) showed that differences in brand attitude between conditions exist. High involved consumers who have time available are more positive towards the brand after reading the story than consumers that lack motivation and/or time. For the latter, factual information about the brand is equally effective. Furthermore, the level of involvement moderates the effect of time on brand attitude. The more involved the consumer is, the more important it is that they have time to elaborate on the brand story.

The research conducted by West (2015) showed that 55% of people would consider buying from a brand in the future if they really loved a story. This was particularly true for participants aged 18-24, 35-44, 45-54 and 55+. West found also that "sequencing ads together in a way that tells a brand story leads to better outcomes than a sustained message focused solely on driving an action".

Discussion

Storytelling can mean different things to different people, which creates opportunities and needs for conducting a wide variety of research on this topic. The presented results of the source research show, first and foremost, the high effectiveness of storytelling in influencing the recipients. It is mainly about higher purchasing intentions, positive attitudes towards advertising and higher commitment to the content of advertising.

It is worth noting, however, that advertisers do not fully appreciate the advantages of storytelling. Research conducted among Polish enterprises indicate that they prefer displaying typically rational arguments in advertisements, most often associated with product attributes or price, the most motivating to purchase. At the same time, they are aware that the emotional arguments are more popular with the recipients, which is also confirmed by the consumers themselves (Nowacki, Strużycki 2011, pp. 133-177). Advertisers are also not flexible in terms of shaping the content and form of advertising messages - less than 5% declare their propensity for pro-innovative activities in this area (Nowacki 2015, p. 125), which may pose barriers to the development of storytelling in the Polish advertising reality.

Conclusion

The considerations presented do not exhaust the problem of the effectiveness of storytelling as an advertising tool. They are rather a foundation for further research on this issue, especially that in the Polish market conditions the problem is still relatively poorly recognized. Considering the diversity of forms and possibilities of using storytelling, research challenges should be taken to determine future directions of storytelling usage in advertising.

The first research area may be to test the value of different story categories among different audience segments. Another potential area is an identification of the scale of different kinds of advertising stories involving different types of consumers. It would also be reasonable to recognize the perception of storytelling in a visual and linguistic context. It is also worth paying attention to the varied possibilities of presenting advertising stories in various media. An interesting issue would also be to compare their reception. An important factor differentiating the perception of storytelling can also be the characteristics of recipients considered not only in the context of objective demographic variables, but above all the significance of more subjective psychological, cultural or behavioral variables.

The results of such research may be a kind of a signpost for business practice, how to use storytelling as an alternative to traditional formats of advertising messages, while maximizing the effectiveness of its impact.

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EMPLOYEES AS THE STAKEHOLDERS OF THE BANKING SECTOR IN POLAND

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Abstract: The article discusses activities in the area of corporate social responsibility undertaken in the banking sector. The analysis was performed from the perspective of the stakeholder theory. One of the most important groups of stakeholders are employees. Employees are usually interested in the implementation of CSR standards. The hypothesis of the article is a claim that companies operating in the Polish banking sector include expectations of employees as the stakeholders in their strategies. The article is based on the analysis of data published on the websites of eleven banks listed on the Warsaw Stock Exchange (WSE). With the aim of the initial determination of the scale of CSR activities undertaken by the examined banks, a morphological table was prepared to determine what type of information is published on the website. The analysis of data published by listed companies belonging to the banking sector in Poland allows for the confirmation of the research hypothesis of the article, yet it fails to provide an answer to the question about the degree in which declarations are reflected in the actual activities of banks.

Keywords: sector, CSR, employee satisfaction, stakeholder theory

Introduction

The concept of corporate social responsibility (CSR) indicates the necessity of incorporating social and ecological objectives in the strategy of a company apart from economic objectives. From the perspective of featuring CSR activities in the practice of business operation, the stakeholder theory is often used to show the necessity of identifying and taking into account expectations of all shareholders in the company's strategy. Undertaking such activities should contribute to the improvement of the company's competitive position and, in a long-term perspective, increase the company's value. One of the basic groups of stakeholders are employees. Their significance depends on the qualifications and the requirements that are set before them. In the case of banking activities which perform specific economic functions requiring social trust, the employees, apart from high human capital (knowledge, experience, motivation, etc.) also have to bear features of proper human capital (which determines maintenance of proper relations with clients and colleagues).

The objective of the article is to analyse the CSR activities undertaken for the benefit of employees in the banking sector from the perspective of the stakeholder theory. The hypothesis is the statement that companies operating in the Polish banking sector include expectations of employees as the stakeholders in their strategies. The article relies on the analysis of data published on the websites of eleven banks listed on the Warsaw Stock Exchange.

CSR and Stakeholder Theory in Banking Sector

The concept of corporate social responsibility (CSR) is a relatively new concept and continues to evolve (Carroll 1999; Madsen & Bingham 2014; Blair 2015). The majority of authors adopt a broad meaning of the CSR, emphasising that apart from economic responsibility (ensuring profitability of operation), a company is also charged with legal, ethical and environmental obligations (Maignan & Ferrell 2001; Gössling & Vocht 2007; Pollach 2011; Glavas & Kelley 2014). The strategy of a company implementing CSR activities should take into account expectations of persons and institutions interested in its successful operation (Hubbard 2009; Whelan 2013), along with the impact of such operation on the natural environment and general social welfare (e.g. creation and maintenance of work places) (Matten & Crane 2005; Prior & Argandoña 2009; Chan & Cheung 2012).

Companies that introduce CSR elements into their strategies often use the stakeholder theory. Identifying and taking into account expectations of all stakeholders in a company's strategy should facilitate its stable and continuous development (Gössling & Vocht, 2007; Hubbard, 2009; Smith, 2011; Zachra & Wright, 2016). Better cooperation with stakeholders improves the company's repute, increases the clients' satisfaction and loyalty and also contributes to reduced costs and risk (Hsueh, 2014; Saeidi et al., 2015; Yuel & Pae, 2016). In consequence, in a long-term perspective, the company's competitive position improves and its market value grows (Maignan & Ferrell, 2001; Servaes & Tamayo, 2013; Bhattacharya & Sen, 2014).

Companies guided by CSR principles try to take heed of expectations of all stakeholders, yet due to the fact that their expectations are varying and often divergent, companies should start with identifying the main groups of stakeholders and their expectations for the purpose of building a hierarchy of their significance. From the economic perspective, a company should, in the first place, take into account expectations of stakeholders incurring a part of the company's risk (capital risk, employee risk, financial risk, trade risk) and contributing important resources to the company (Rok, 2012).

In practice, implementation of the CSR concepts should take place in a manner that does not contradict the company's basic objective (accomplishing an economic surplus). A significant portion of activities undertaken as part of the CSR bears traces of long-term investments in the relations with the company's stakeholders. Such activities generate costs in a short-term period and some of them may be recovered only in a long-term perspective. In relation to the above, the companies that did not take into account the CSR principles in their activities so far and intend to undertake such activities in the future should initially be guided by the economic perspective (profitability of individual activities). The suggested sequence of undertaking CSR activities by a company complies with Carroll's pyramid differentiating four areas of a company's responsibilities, i.e. (Carroll, 1991): economic responsibilities (a company should generate profit and maintain or increase the level of employment), legal responsibilities (a company should observe binding legal regulations), ethical responsibilities (a company should adopt relevant ethical standards and proceed in line with them), philanthropic responsibilities (a company should support local communities, help solve social problems). As part of economic responsibilities, taking into account the CSR principles, the company should initially put its business strategy in order in a manner not threatening its profitability. Accomplishing an economic surplus is a condition for financing other CSR areas (where the implementation of CSR activities requires initial investment).

The most important stakeholders division of a company from the perspective of the subject matter of the article is the division into primary stakeholders (customer, employees, shareholders, suppliers) and secondary stakeholders (community, environment, government, and society in general) (Maignan et al., 1999; Glavas & Kelley, 2014). On account of the probability of recovering expenditure on CSR activities (stimulated behaviour of stakeholders and expected effects related to it), the companies largely focus on the primary stakeholders (Maignan & Ferrell, 2004; Green & Pelozo, 2011; Pollach, 2011; Rasche et al., 2013; Dawkins, 2015). In contacts with clients, the company should make use of honest information and advertisement. With the aim of ensuring stable supplies (resources, materials, equipment and capital), a company should ethically collaborate with suppliers, recipients and creditors (maintain reliable financial settlements, pay debt when due, etc.) (Smith, 2011).

Employees are one of the most important groups of the company's stakeholders. Among objectives forming corporate social responsibility of a company in the HR area, the following activities are listed most often: striving to maintain the existing jobs and creation of new ones, offering possibilities of promotion and development for the employees supported by a relevant incentive scheme, employees activation conducive for accomplishment of their individual objectives, support for collaboration, involvement, teamwork and employee participation, support for employees in potential de-recruitment processes. Satisfaction and involvement in work depends on the work conditions created for the employees, proposal of an acceptable incentive scheme, creation of proper relations at the work place and making use of an acceptable style of management (Czop & Leszczyńska, 2012). Employees are usually interested in implementing CSR principles (Brammer et al., 2005; Janssen & Steyaert, 2009; Snape & Redman, 2010; Kolk et al., 2016), as they emphasise the necessity of efficient, just and ethical conduct of the entire HR process (planning human resources, recruitment and selection, development, evaluation and incentive scheme, reduction criteria and support for dismissed employees, as well as maintaining work-life balance) (Smith, 2011). In practice, it is necessary to prepare and to implement relevant HR procedures pertaining to the following areas: personnel recruitment, personnel management inside the company, professional development and personnel dismissal (Zieliński, 2015).

Such recommendations comply with the employees' objectives because they are conducive to their development, career, higher wages, good work conditions and improved situation in the company's environment (Glavas & Kelley, 2014; Young et al., 2015). A company implementing the CSR principles in reference to the employees may expect a return of the expenditures incurred on such activities due to increased loyalty of the current employees, their satisfaction, motivation, productivity and higher interest in the company on the part of potential employees (which facilitates procurement of new employees) (Brammer et al., 2005; Madsen & Bingham, 2014; Yuel & Pae, 2016; Kolk et al., 2016).

The banking sector, on account of the specific economic and social functions that it performs, also bears specific social responsibility. Apart from economic objectives, guaranteeing survival on the market (efficiency, social and private value creation), it is possible to indicate organisational challenges that the banking sector faces (the responsibilities arising from the organisation's goals, its structure, its incentives and control system, etc.), and moral requirements (the moral and legal responsibility for the performed activities and their consequences) (Prior & Argandoña, 2009). The division presented above makes reference to the responsibility towards shareholders, employees and clients. It has to be remembered that the activities in the realm of CSR declared by a company are not always implemented. An example may be provided by some banks in the USA which, in spite of declarations pertaining to observance of the CSR principles, were deemed guilty of discrimination in employment and offered financial instruments without proper clarification of risks related to them and conduct of non-transparent financial reporting, etc. (Grougiou et al., 2014).

Research Method

Verification of the research hypothesis claiming that companies operating in the Polish banking sector include expectations of employees as the stakeholders in their strategies relies on the analysis of the content of information published on websites of eleven banks (Table 1) listed on the Warsaw Stock Exchange (WSE). These companies were selected out of fifteen banks making up the WIG Bank index (all the banks listed on the WSE). The analysis does not include foreign banks (Banco Santander and Unicredit), as well as two banks with capital taken-over by other bank groups, constituting a part of eleven banks selected for analysis (BPH is a part of Alior Bank, whereas Idea Bank belongs to Getin Holding Group).

The meaning and scope of CSR activities addressed to employees in the Polish banking sector was analyzed on the basis of information published on the main websites of banks. Firstly the following sections of websites were analyzed: CSR, careers, work place, benefits, job offers, stakeholders and investor relations. CSR reports were also used. Unfortunately, only four of analyzed banks have published such reports.

The article uses a morphological table as a tool for initial determination of the scope of CSR activities addressed to employees on the part of the analysed banks. Based on information published on the banks' websites, seven parameters characterising the approach of banks to their personnel were selected. After identifying declarations pertaining to the CSR activities addressed to employees, an in-depth analysis of the scope of information is presented, determining the range and the type of data published by the banks.

Significance of CSR in the Banks' Activities in Poland

For the purpose of an initial analysis of the area of CSR activities undertaken by the examined banks, a morphological table was prepared, taking into account seven parameters appearing on the banks' websites in relation to activities for the benefit of the employees (E). The selected parameters include: E1 – publication of the number of employees; E2 – ensuring good work conditions; E3 – competitive wages; E4 – benefits; E5 – support for personnel's development; E6 – support for ethical conduct, support for diversity (no discrimination); E7 – presentation of current work offers. These seven parameters appeared in all or most websites of the analyzed banks. Fewer than 50% of the analyzed banks pointed to other activities directed at employees.

Table 1. Areas of CSR activities addressed to employees, declared by the banks in Poland

Bank	E1	E2	E3	E4	E5	E6	E7
Alior Bank	1	1	1	0	1	0	1
Bank Millennium	1	1	1	1	1	1	1
BOS Bank	0	1	1	1	1	1	1
BZ WBK	1	1	1	1	1	1	1
Getin Holding	1	1	1	1	1	1	1
Getin Noble	0	0	1	1	1	1	1
Handlowy	1	1	1	1	1	1	1
ING BSK	1	1	1	1	1	1	1
mBank	1	1	1	1	1	1	1
Pekao	0	1	1	0	1	1	1
PKO BP	1	1	1	1	1	1	1

Source: www.aliorbank.pl; www.bankmillennium.pl; www.bosbank.pl; www.bzwbk.pl; www.getin.pl; www.gnb.pl; www.citibank.pl; www.ingbank.pl; www.mbank.pl; www.bankpekao.pl; www.pkobp.pl.

The analysis of the content of Table 1 confirms that the discussed banks determine the priority areas of CSR strategy in relation to the personnel in a similar manner. Three groups of activities for the benefit of the personnel which are listed by all the analysed banks include: competitive wages, support for the personnel's development and presentation of current job offers. This may indicate that the Polish banks find it important to keep the image of a good employer. Current job offers, supported by a declaration about competitive wages and possibilities of professional development are aimed at encouraging job seekers to submit their applications. It has to be noted that the labour market in Poland is currently approaching the level of equilibrium and in large centres, where banking activities are conducted most frequently, the employee market is emerging (excess of work supply over work demand).

Looking from the perspective of the number of indications, subsequent directions of activities as part of the CSR in terms of importance include ensuring good work conditions, support for ethical conduct and diversity (no discrimination) (10 indications each), as well as providing employees with extra benefits (9 indications). No information pertaining to the parameters above in case of individual banks does not mean that they offer no additional benefits to their employees; however, they do not deem it worth mentioning on their websites. Three out of eleven analysed banks do not inform about the current level of employment.

The accuracy of data published by individual banks with respect to the CSR activities is varied. More information in this respect may be obtained on the websites of banks belonging to the RESPECT index (Bank Millennium, BZ WBK, Handlowy, ING BSK and Pekao), i.e. companies listed on the Warsaw Stock Exchange, declaring involvement in implementation of the CSR concepts. The RESPECT index currently includes 25 companies and companies belonging to the banking sector are the most numerous group (subsequent positions are taken up by the energy industry – four companies in the index, fuel and raw materials industry – three companies in the index from each industry). mBank also offers quite a lot of data about its CSR policy, declaring its desire to form a part of the RESPECT index.

When analysing the parameters set out in Table 1, attention should be drawn to the accuracy of published data. In reference to the level of employment, apart from three banks that did not reveal it, the majority of other banks only provide the number of employees. Only three of the analysed banks present employment structure according to basic criteria (sex, age, education, position, etc.) as part of the corporate social responsibility report. The banks emphasise that they offer attractive (best, inspiring) work places, whereas such declarations remain pretty general. The banks declare that they offer a competitive level of wages, whereas wages offered in the banking sector exceed the national average wage only slightly. Taking into account the fact that operation of the banking sector concentrates in large cities, the wage advantage of the banking sector as the employer on numerous local markets is slight. An element encouraging people to start working in the banking industry is an extensive programme of benefits for the employees. Benefits offered by the banks include managerial options, bank products, discounts for business partners' products, etc. As far as benefits for the employees are concerned, the banks offer, e.g., additional insurance, medical care, sports and recreation activities, severance pay. Additional incentives for the applicants are development possibilities offered in the banking sector. All banks declare that they treat the personnel as the basic resource on which implementation of their strategy relies. In relation to this, development of personnel is considered an investment. Banks assure about relevant procedures for introducing employees to tasks at a work position and inform about extensive training programmes. When referring to ethics, banks most often indicate support for ethical conduct, support for open communication with the employees and application of relevant HR procedures. The banks also declare support for diversity (no discrimination) related to creation of equal opportunities (avoiding discrimination in any respect), as well as counteracting mobbing.

All analysed banks present current job offers informing about the place (city) where a work place is located and present a brief description of the position. The offer is often accompanied by a description of the recruitment procedure and encouragement to file an application. Extensive use of the Internet in the personnel recruitment procedure is related to its advantages with respect to low costs and possibilities of ongoing updates of the offer. The fact that the majority of banks publish several dozen job offers indicate that the Polish banking system is experiencing problems with procuring adequately qualified personnel.

Individual banks also present declarations of activities for the benefit of employees other than seven parameters listed in Table 1. Examples include care for the employees' families and healthy lifestyle (including work-life balance programmes) and the employees' co-decisions with respect to the professional career path.

Discussion and Conclusion

Analysis of materials published on the websites of listed companies from the banking sector in Poland allows for confirming the article's hypothesis that such companies include expectations of employees as the stakeholders in their strategies. All of the analysed banks declare that they offer competitive wages, support development of personnel and present current job offers. Other priority activities for the personnel (according to the number of indications) include: ensuring good work conditions, supporting ethical conduct, supporting diversity (no discrimination) and providing the employees with additional benefits. The analysed banks publish data pertaining to the above activities with varied accuracy and sometimes they only make declarations. Even in the case of banks publishing corporate social responsibility reports it is impossible to answer the question whether the declarations that are made are reflected in the actual activities undertaken by the analysed banks. To find an answer to the question above, it is necessary to perform a study among the employees of the banking sector with respect to the degree of their satisfaction with activities undertaken for their benefit by their employers.

Priority directions of activities addressed to the employees show that the Polish banking sector is experiencing problems with procuring adequately qualified personnel. The labour market in Poland in large centres is transforming into the employee market; in addition, due to demographic reasons, this trend will deepen. In relation to the above, one should expect an increase in the degree of implementation of declarations made for the employees (implementation of the company's strategy in reference to employees) and appearance of new CSR elements addressed to the employees. Such activities will be necessary to procure new employees and to stabilise employment of the current ones (limiting employee fluctuation).

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THE MANAGEMENT OF IT SOLUTIONS SECURITY OFFERED IN PUBLIC CLOUD COMPUTING

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Abstract: Cloud computing technology is currently a well-established solution applied in the everyday business activity of organizations and enterprises. The deployment models of cloud computing such as private, public and hybrid solutions bring multiple benefits for organizations which decided on its implementation or application. The services offered in the cloud model may be exposed to different threats and vulnerabilities, which is why the issue of cloud computing security is a very significant and current problem. The aim of this paper is to underline the importance of cloud computing security solutions and their management in the contemporary business organization while taking into consideration such security aspects as cloud confidentiality, cloud integrity, availability, accountability, as well as ensuring privacy.

Keywords: cloud computing security, public cloud, management of cloud computing, grid computing, software as a service, infrastructure as a service

Introduction

Over the last few years, the number of enterprises supporting their operations with solutions available in the Cloud Computing model has been increasing. The growing popularity of cloud computing among the diverse industries as well as the size of enterprises results from the positive effects of its application in business practice. In general, Cloud Computing solutions by having the potential for better cost control, high quality services and flexible access to almost unlimited computing power - can affect the competitiveness of enterprises and help them react dynamically to changes in the environment. The implementation of cloud computing, which changes the model of IT resource management in an enterprise, involves some challenges and drawbacks which generate risks in the area of IT security. Before making decisions concerning using the Cloud Computing model, the enterprises should conduct a thorough analysis of the security of data and services.

The aim of the article is to present the process of data security management and services that can be implemented by a company which is considering or using a service in the public cloud computing. In order to achieve this goal, the Cloud Computing model was briefly described, and the issues of data security and services for processing in the public cloud were discussed. The paper also presents the results of research on international organizations addressing security issues in the Cloud Computing model.

The outline of cloud computing model

Generally, Cloud Computing is a technology model which any and all resources-application software, processing power, data storage, backup facilities, development tools, etc. - are delivered as a set of services via the Internet (Haag, Cummings 2010, p.205). One of the most complex definition is provided by the National Institute of Standards and Technology: cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.

According to NIST the most important characteristics, describing Cloud Computing are: on-demand self-service, broad network access, resource pooling, rapid elasticity, measured service, it also generates the profits for all users and its services are available at all levels of the enterprise technology stack (Mell, Grance 2011). In principle, computational cloud due to the specificity of recipients and the location of IT solutions can be divided into (Dziembek 2016 p.730): Private Cloud; Public Cloud; Partner Cloud; Community Cloud; Hybrid Cloud; Dedicated Cloud. There can be distinguished the basic models of cloud services such as: IaaS - Infrastructure as a Service, PaaS - Platform as a Service and SaaS - Software as a Service. The characteristic feature of data security and services problem in Cloud Computing may be the fact of its perception by some users as an advantage and by others as a

threat. Various viewpoints are presented in the literature, e.g. A. Mishra et al. state that „the movement to the cloud could mean an improvement in security to many organisations (Mishra et al. 2016, pp. 36-39)”. O. Harfoushi et al. claim that „the main drawback of the existing cloud service implementations is their inability to provide an accredited high security level” (Harfoushi et al. 2014, pp. 15-21). S. Ramgovind et al. state that „cloud computing has the potential to become a frontrunner in promoting a secure, virtual and economically viable IT solution (Ramgovind et al. 2010)”. S. Carlin and K. Curran claim that „one of the biggest security worries with the cloud computing model is the sharing of resources (multitenancy)” (Carlin, Curran 2011, pp. 14-19). There should also be remembered the weakest link of computer security is always a user.

The process of data and services security management in the public cloud computing – theory synthesis and discussion

Essentially, the data and service security process considered from the point of view of the company (recipient) which is interested in using or is currently using the cloud computing solutions - consists of several related activities. Individual activities determining the process of data and services security management in the public cloud computing are highlighted in Figure 1, and its coordination should ensure efficient functionality of the company, reduce the risk and increase confidence in the use of technologies such as the Cloud Computing model.

The starting point is that the management of the company has clearly defined business objectives and strategies that determine the goals and strategy as well as the policy in the field of information security. Requirements resulting from the established information security policy should be referred to the specificity of public cloud computing, determining whether it is consistent with the strategic arrangements of the company or not. In the next stage, the company should identify possessed data and services which can be transferred to the cloud. It is advisable to determine its estimated value (e.g. as a result of losses caused by unavailability, disclosure or restoring cost) and to classify the role and importance for the functioning of the enterprise and the legal requirements to which they are subject.

When considering the application of a public cloud, it is necessary to precisely classify the data and services of the company which are/should be transferred to the cloud, and these which should stay in its own IT infrastructure. Contractual obligations defining guidelines in the scope of data security and the need to comply with specific legal regulations for specific types of data. Data collected in obsolete applications, usually also should not be migrated to the public cloud. For some enterprises, the public cloud will be unacceptable due to the lack of full control of data access, lack of certainty concerning the physical location of data and the use of an environment operating in the multitenancy model.

The issue of the purposefulness of considering the use of a public cloud should be thoroughly considered at the initial stage of identifying and characterizing all data and services which are subject to protection in an enterprise. In the next step, the identification of internal and external threats takes place, the activity of which may cause losses in the enterprise. At this stage there is also performed a risk analysis in which, after the identification of threats together with the possibility of its occurrence, the definition of vulnerability of individual data and services to threats is completed.

Public cloud computing as any technological solution generates many different risks whose identification and size is also dependent on the type of service (IaaS, PaaS or SaaS). The increase in the scale of IT solutions offered in the public cloud and the increasing amount of data available in a distributed environment in the on-line mode results in an increase in risk. In general, the risks to public cloud computing that the company should be considered as: failure and interference in the operation of services, unauthorized access to data, loss or leakage of data, lack of appropriate protections, lack of access to data and services, performance problems of the service, inappropriate management of credentials and access, unclear or unfavorable clauses in contracts, problems with technical support, lack of understanding of public cloud rules, lack of possibility to recover data quickly, occurrence of the phenomenon of IT solutions purchase by employees without IT department of the company (shadow IT), lack of qualified personnel at the supplier site, abrupt termination of services by operator, after the services are canceled by the companies, the supplier does not permanently delete its data.

In the CipherCloud research (CipherCloud 2015) cloud security challenges are constituted by such factors as audit/compliance/privacy (64%) in terms of nce (31%) and data residency not adhered (11%). The other security challenges violation of country data protection policy (58%), internal security policy adhere are „unprotected data for documents (32%), malware protection for documents (2%) and lack of secure collaboration and file sharing methods (2%).

Due to the fact that the issues of data and cloud services security concern the service provider, network operator and recipient (enterprise) - in this phase, the risk of using your own IT infrastructure should be precisely defined in the company as well as the risks associated with the Internet operator. The main risks of the network operator are related to the performance and stability of the Internet network, which may prevent effective usage of the public cloud. In the next stage, the company can perform two activities in parallel, i.e. analyze suppliers and their offers, as well as check the security methods used by providers and pre-test the services of suppliers in the cloud. Supplier analysis may concern: market share, the period of service provision in the public cloud, service usage costs, functional scope of the service, opinions on other recipients about the service's functioning and quality of technical support, number of recipients, integration of services with other IT solutions, certificates held and financial stability. A much more complicated task is the analysis of security methods applied by the supplier (provider), reducing the risk of negative consequences (losses) for the enterprise.

This may be due to difficulties in obtaining relevant data and its verification. Implementation of protections applied by the provider should guarantee the given enterprise obtaining such features as: confidentiality, authenticity, availability, integrity, accountability, reliability. Among the security methods used by the provider in the public cloud, the company may try to analyze and compare: 1) physical protections, 2) technical protections, 3) hardware and software protections.

Within this group of security systems, the company may recognize whether in data centers are also used: (Pałka, Zaskórski, and Zaskórski: 2013):a) firewalls and data packet filters as well as advanced authentication mechanisms, b) VPN networks, c) cryptographic techniques (e.g. SSL encryption protocols, disks encryption), d) organizational and administrative protections.

The methods of data and service security in the public cloud computing used by the providers, the company should refer to the protection methods which are used for its own IT infrastructure. As a rule, the level of security methods used by service providers in the public cloud is at a much higher level than in a small, medium or even large enterprise. Generally, IT solutions offered in the public cloud computing system are characterized by a significant degree of failure-free (e.g., many service providers in the public cloud declare service availability at the level of 99%) and a high level of data security. Initial testing of services together with conducting experiments are carried out to estimate the quality parameters of services in the public cloud. Conducting a purposefulness analysis of transferring data and services to the public cloud, identification of threats and risks as well as analysis of the provider and its offer, and security methods supported by a long and varied testing service - should facilitate making decisions regarding the use of services available in the public cloud.

The next step is signing a contract with a service provider offered in the public cloud. After signing the contract with the vendor, data migration activity usually takes place. In the last activity which is monitoring and improving the security methods of data and services in the cloud, the company should check the correctness of the service functionality and whether the data security methods and services used by the cloud provider are consistent with the company's goals and expectations. In case of defects or imperfections in the applied safeguards (e.g. log analysis, application of diagnostic applications), the set of existing protective methods should be extended by the provider with a new and better security measures.

The company should manage the range of services in the public cloud, user access to data and services, control the quality of services and internet connection, and check the status, configuration and protection of its own network devices (routers) and access devices (desktop computers, laptops, tablets, smartphones) and if there are any deviations, quickly make changes. An important element of improvement is the updating of company security documents (policies, instructions). It is also necessary to conduct continuous training and optimize the methods of user access to data using authentication and certification mechanisms and to improve logon mechanisms using special access keys, user authentication or improvement in the area of applying the appropriate cryptographic certificates for data shared and processed in the public cloud. In the situation when the enterprise plans to launch further services in the public cloud, it is necessary to move to the previous activity in which

data and services that can be transferred to the cloud are reidentified, what requires risk and supplier analysis and its offer along with security mechanisms and initial service testing. As far as threats to public cloud are concerned it is worth mentioning: unauthorized access, hijacking of accounts, services and network traffic, cybercrimes, lack of appropriate protections in API interfaces, denial of service attacks, injection of malicious code, service theft, losing mobile device (compare Computerworld 2017).

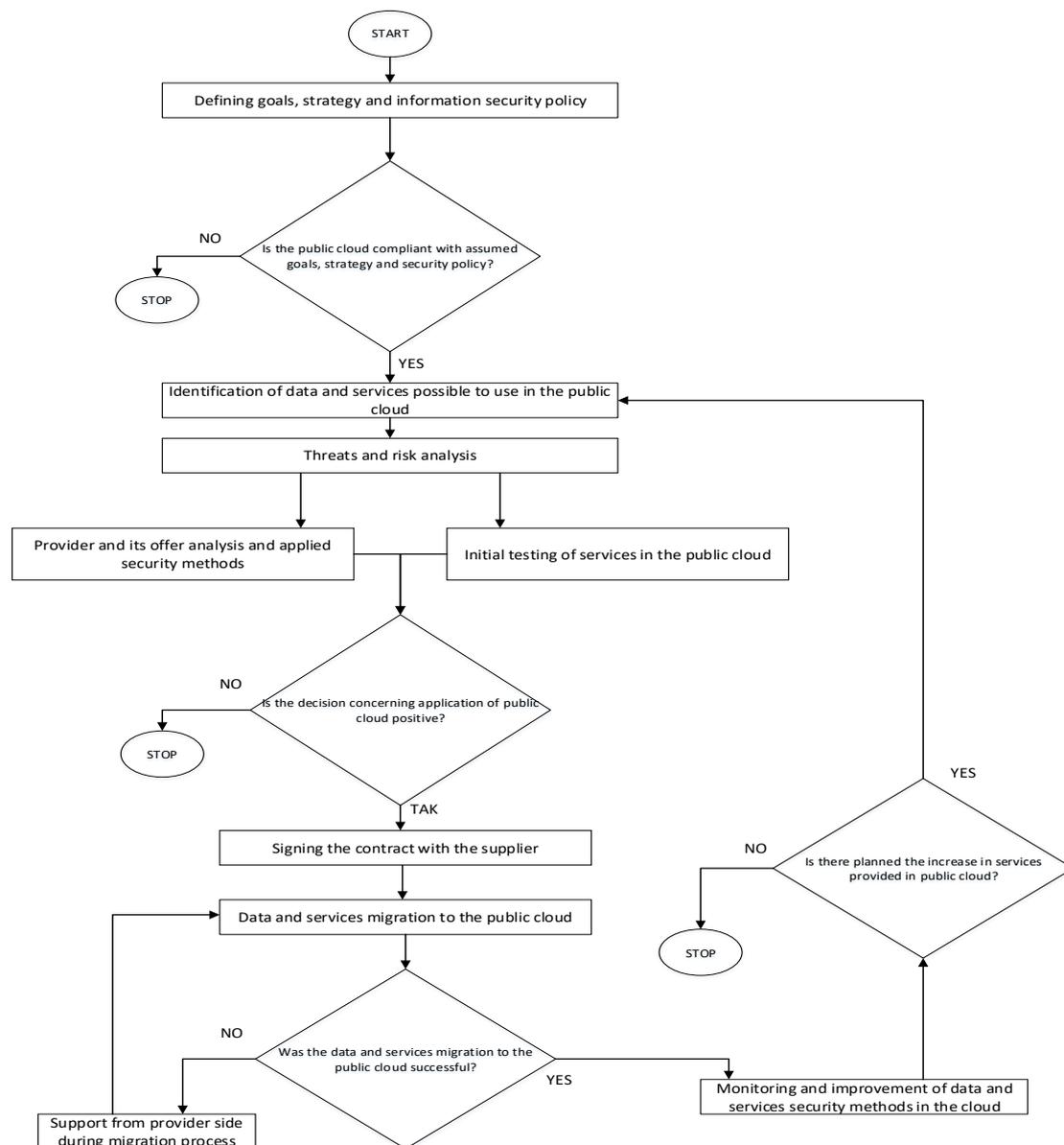


Figure. 1 The process of security management in relation to services offered in the public cloud

Source: Authors' own study

Review of selected research results

Cloud Standards Customer Council recommends ten steps for ensuring security for cloud computing of which the most important seems to be „ensuring effective governance, risk and compliance for existing processes; operational audit; proper management of people, roles and identities; ensuring proper protection of data and information; enforcing privacy policies; ensuring security of cloud networks, evaluation of security controls on physical infrastructure and facilities; managing security terms in the cloud service agreement, understanding the security requirements of the exit process (CSCC 2017)”

G. Ramachandra et al. mention the facts coming from Forbes 2017 report that cloud solutions will constitute „80% of all IT budgets and 49% of the businesses are delaying cloud deployment due to security skills gap and concerns”. (Ramachandra et al. 2017, pp. 465-472). Cloud Security 2016 Spotlight Report by CloudPassage state that security is the most significant barrier of cloud adaptation in organizations and the next barriers are constituted by legal and regulatory compliance concerns and data loss and leakage risks. Another key survey findings showed that „53% of organizations see unauthorized access through misuse of employee credentials and improper access controls as the single biggest threat to cloud security, and the other risks include accounts hijacking and insecure interfaces (APIs). The most important cloud security challenges were mentioned in the report as „Verifying security policies (51%), visibility into infrastructure security (49%) and compliance (37%)”. The further findings showed that „61% of organizations plan to train and certify current IT staff, 45% partner with a managed security services provider, and 42% deploy additional security software to protect data and applications in the cloud”. The report indicated that „the most effective security technologies to protect data in the cloud are encryption of data (65%) and in motion on networks (57%)” (Schulze 2016).

CipherCloud global cloud data security report provide the following findings: „encryption is the most significant data protection mechanism for enterprise, top barriers for cloud adoption are constituted by compliance and data protection, the main reason for cloud implementation in the enterprises is the opportunity to introduce new tools and capabilities into the organization, financial services and healthcare sectors lead in cloud data protection maturity”

Conclusion

As a conclusion it is worth noting the report by Cloud Standards Customer Council which provides number of security and privacy risks in relations to cloud computing. They enlisted such factors as: „loss of governance ownership, ambiguity of responsibility, authentication and authorization issue, isolation failure, compliance and legal risks, handling of security incidents, management interface vulnerability, application protection, data protection, personal data regulation, malicious behaviour of insiders, business failure of the provider, services unavailability, vendor lock-in, insecure or incomplete data deletion, visibility and audit (CSCC 2017)”. According to Gartner's forecasts from the beginning of 2017, the value of the global public cloud services market will increase by 18% this year and by 2020 by as much as 80%. In connection to it the significance of data and public cloud services security will grow as well.

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REAL WORLD DECISION MAKING

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Abstract: Decisions are a crucial part of life if we speak of individuals or of organisations. Just like people, organisations also make a great deal of choices every single day and by doing so, they not only select a particular course of action but, beyond that, they choose their future among diverse alternate paths which will shepherd them on too. The history of making decisions is ancient. It is a lot more antique than the algorithmic approach to the decision-making process that has become prevalent in management school thinking until the most recent of times. In my view, I make a humble attempt to amalgamate literature with my two-decade-long leadership practice and deploy some novel context on this pervasive task of our lives: judgement. Apart from being an algorithm, what else does decision making imply? Do we have some common human flaws that often spoil the quality of our judgments? What else impacts our choices? Are there certain approximations more successful than others?

Keywords: decision, bias, bounded rationality, ego depletion, agency

Introduction

The main goal of the paper is to highlight a few of the many reasons why purely objective decisions are rarely made in the business world. The article builds on literature sources and on my leadership experience.

Background

Bounded rationality

Traditional approaches had looked at decision making as a purely mathematical issue:

- firstly, you need a precisely defined goal,
- you collect all information the decision requires,
- you develop options based on the information,
- by using some mathematical algorithm, you select the optimal solution (the one that gives the highest possible score).

Simon pointed out that this model oversimplifies real life (Simon, 1972). When we make decisions we perpetually have to bear in mind: inconsistency, ambiguity, vagueness, unawareness and the failure of logical omniscience (Radner, 2000).

Emotions

The continuous presence of emotions heavily influences our decisions. Typical ones are: anxiety, excitement, anger, fear, shame, hope, envy. (So et al., 2015)

Stress

While a certain – limited - degree of stress may stimulate performance (Teigen, 1994), its exaggerated amount – chronic stress – has a detrimental blow on our apprehension. Excessive stress shortens our sight, makes us over-sensitive to punishment, reward and risk. It prohibits us from using strategy and impedes our trust in higher level systems. Acute stress – besides its lethal clinical effect - permanently changes our attitude and renders us incapable of producing fine-tuned decisions. This is clearly harmful to the quality of our decisions (Starcke and Brand, 2012).

Mental exhaustion

Overloading our mental decision subsystem will lead to its depletion. This is also called ego depletion (Baumeister et al., 1998) meaning the burn out of self-regulatory system.

Motivation

Besides our dark side of motivation, we also have more noble drives. Such forces are the motivation for belonging, for affection or for achievement (Locke and Latham, 2002).

Cognitive biases

Our brain has two distinct subsystems:

- System 1: operates automatically and quickly with little or no effort.
- System 2: effortful mental activities that require complete attention.

Mostly, we use System 1 that provides us with quick and easy – and every now and then entirely bad – solutions to simple challenges. Our brain keeps the capacity of System 2 standing by for novel, complex problems. This division of labour routinely works well, but on other occasions it predictably leads us astray (Kahneman, 2011; Paprika, 2002; Szántó et al., 2011).

Personality

There are lots of diverse methodologies to classify personalities. Locus of control, need for achievement, Myers-Briggs Type indicator, risk attitude, flexibility and many other gauges that measure the countless facets of personality differences among us. From the more angles we have a glance the bigger will be the difference among our personalities – thus among our approaches to decisions. Personal values are important contributors of the intellectual capital of organizations (Bahrami et al., 2016) and they also interact with social capital which is also an important asset of organizations (Hurta and Dunay, 2013).

Perception

Our perception depends on our personality and our momentary mental and emotional state. Kahneman therefore calls this very subjective picture of the world: What You See Is All There is - WYSIATI (Kahneman, 2011). By our perception, we retailer reality to our emotional needs. Such crucial factors like the passage of time and the presence of risk are also distorted by our subjective perception. (Droit-Volet and Meck, 2007)

Agency

Managers, naturally, have more information on the organisation than shareholders do. In these circumstances it is easy to comprehend that self-interest has an influence on decisions (Eisenhardt, 1989). Managers' motivation is frequently the cumulation of power. Thus, they are often interested in beefing up the organisation and centralize power into their own hands as much as applicable (Bakonyi, 2016, pp. 44–57).

The group

Typical group level biases are stereotyping, prejudice and discrimination (Haslam and Loughnan, 2014; Smith, 2016). These are regularly covert (implicit) but in acute cases they may become explicit. Enmity and rivalry among groups are frequent. This situation narrows cognitive abilities since groups will much more focus on defeating other groups at any cost, instead of constructively focussing on the solution of the real challenge. Intergroup rivalry tends to cause participants to see every situation as a zero-sum game – even if in fact, it is not one (Dovidio and Gaertner, 2010). Ingroup-outgroup bias occasionally leads to the dehumanization of outgroup individuals and to the superhumanization of one's own group.

Our national cultures determine how we approximate other people, decisions, power, and risk. Approaches that are remarkably distant from ours will seem strange to us (Weber and Hsee, 2000; Yates and de Oliveira, 2016).

Favourable company culture is a vital intangible asset which may produce strategic advantage that competition will be unable to clone (Moberly, 2014).

The environment

Algorithmic problem solving has very special demands against the environment (Sántáné-Tóth et al., 2008). It is not tremendously difficult to grasp that real-life environment can rarely be squeezed in this paradigm. The best solution to a given problem in uncertain environment is likely to be much different in nature from that in controlled environment (Radner, 2000). Decision making process is determined not only by the external environment (group behaviour, external values and ethics) but also by the internal environment which is affected by the individual behaviour and internal features (Skowron-Gabrowska et al., 2016).

Discussion

We have seen a few reasons that render rational decision making labyrinthine.

We are humans and our thinking is only partly rational. Our other half is emotional. In reality, goals are often poorly defined and multifaceted, information is unavailable (and its acquisition costs time and money) and to turn it all even more blurry: humans have their cognitive limits that the full complexity of problems commonly exceeds. More often than not, we have to make our decisions under unresolvable uncertainty. In these circumstances real life rationality is very different from the above simplified model. This will fundamentally change the rationality of our decisions: we will not seek the top solution but settle for an acceptably good one that is in easier reach.

Emotions are inseparable parts of our psyche. They make us humans. On the one hand they enhance our potential and give us admirable shine. On the other hand, they disturb our rationality.

Stress is an integral part of our modern world. It surrounds us everywhere. Acute stress causes the decrease of our confidence in our decisions and finally culminates in indecisiveness. Overloading our decision subsystem gradually results in the destruction of our ability to decide.

Nowadays competing on cost is predominant. This causes the overloading of employees. It is especially true of splendid managers who have become a scarce resource due to their rare capability of making sound decisions. In this fast-paced world, they must make more and more decisions within their limited time. Legions of HR books emphasize the unlimited nature of human resources. The truth is that our ability to decide is a valuable resource which has its own limits.

Motivated behaviour characterises all living creatures. Mankind is no exception. Whatever we do, our selfish motives will always play a part in our actions. In contrast, our societies expect us to be self-sacrificing. Therefore, people very soon in their lifespan learn how to appear to be unselfish while they covertly act in favour of their self-interest. This force has serious imprints on human decisions.

The dark side of human soul is sometimes dominant. This has been studied for many centuries by great thinkers like Machiavelli, Adam Smith, the evil triad (Fayol, Taylor, Weber), Fraud and plentiful others. The secret they discovered of us is that humans can be controlled by the use of their dark sides and are capable of anything for power, for sex or out of fear. Fortunately, humans also have bright sides where lie our more noble motivations.

We have two cognitive subsystems. The mental shortcuts provided by System 1 are also called heuristics. Their goal is effort reduction. These routines are constantly at work when we make decisions. There are hundreds of them that we already know of and scientists keep discovering new ones regularly.

To no surprise, our personalities exert enormous repercussions on our decisions. Our decision making has a heavy footing on what we perceive of the world. What we sense can sometimes be extremely different from what objective reality is, hence our such decisions are also likely to be off-trail.

Shareholders hire managers to act on their behalf – like agents – and they do so. However, there are innumerable diverse interests in every organisation. The interests of shareholders and those of top management may - to some extent – differ – with a sure impact on decision making.

Humans typically work in teams. There are plenty of biases that work on a group layer instead of the layer of the individual. Humans are built in a way that they identify themselves with groups. They favour their group members versus members of other groups. Members of other groups are treated as opponents and they are derogated. In other words, we value our comrades higher – whether they deserve it or not – and outgroup individuals lower – even if they would deserve our appreciation.

National culture is also an important element of decision making, since distinctly diverse cultures are likely to require completely contrasting approaches to decisions. Not only nations but also companies have their own cultures, meaning the “way we do things around here”. Various company cultures will require diverse interpretations of issues, thus different decisions.

Thus, our environment does not support precise, algorithmic decisions, either. The dizzying speed at which events unfold, their unpredictability, and complexity ask for other approximations.

Conclusion

While classical interpretation of rationality still prevails in numerous domains of life, we must bear in mind that we cannot be fully rational in this sense of the word. The reasons why we cannot be, are at least threefold: ourselves, our groups and the environment in which we must decide.

On the personal level, our judgement is ever blurred by our bounded rationality and cognitive limits, momentary emotions, stress, mental exhaustion, multi-layered motivations, covert cognitive biases, our diverse personalities, distorted perceptions and self-interest.

On the group level ingroup-outgroup biases, national and company culture play significant roles.

The complexity and changeability of our environment further distorts our already heavily biased judgements.



Figure 1: Decisions in the gravitation field of three forces (source: own)

Source: own study

To some extent, we can debias ourselves and by doing so, make our choices more objective. On the other hand, we must accept subjectivity – as an indispensable attribute of our humanity - and learn to live with it. Even better: take advantage of it. Whenever we must decide, we must constantly remember that our – and others’ - verdicts are certain to be subjectively loaded in all circumstances.

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CULTURAL AND ECONOMIC DETERMINANTS OF CONSUMPTION BEHAVIOURS AMONGST POLISH STUDENTS

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Abstract: Consumption is one of the fundamental activities in human life. Nowadays, in the world of hyperconsumption, it is particularly visible, being the subject of numerous studies and analyses by representatives of various scientific fields. Attempts are being made to understand the motives and purpose of consumption, as well as to determine the sources and consequences of potential consumerism. This paper presents fragments of research conducted, amongst others, on Polish students with a view to determining the level of their economic awareness. The attitude to consumption is one of the most important elements of this awareness, because it not only affects the lifestyle and economic situation, but also the level and quality of culture within a given society. An analysis of behaviours and attitudes towards consumption amongst the young generation constitutes an interesting element of the research exploring the socio-economical determinants of consumption. The research was completed in 2015 amongst students of three Silesian universities and represents a significant source of information about the level of economic awareness amongst the young generation.

Keywords: consumption, consumptionism, economic awareness, consumption behaviours

Introduction

Consumption as the object of research has been the subject of numerous analyses and studies aimed at determining not only its scale but also the consequences in both social and individual dimensions. In particular, emphasis is being placed on researching the so-called hyperconsumption, which may lead to the emergence of consumptionism. “It is no longer the desire for social recognition that motivates high-end consumption but the hedonistic and narcissistic delight to derive satisfaction from the independently conceived positive image of one's own consumer Self.” (Stanev 2017, p. 187). Consumption is an inherent part of human existence and, by its nature, should not be perceived as either negative or dangerous. However, problems might be caused by excessive consumption which has a significant impact on the life of individuals and the functioning of entire societies. “In the past, the goal of consumption used to be the biological survival, and when the basic needs were satisfied, further consumption made no sense and assumed negative characteristics – it was even referred to as gluttony.” (Zydorowicz 2009, p. 151). Living in a consumer society forces individuals to kind of adapt to the generally applicable rules, and – depending on how strong their resistance to such mainstream pressure is – they may be able (even though it is very difficult) to limit consumption without excessively multiplying their needs. “With respect to motivation to participate or consume certain goods, consumer behavior literature suggests that although consumers may be ideologically and ethically minded, their aspirations may not translate into sustainable behaviour” (Hamari, Sjöklint, Ukkonen 2016, p. 2052-2053). The research whose results will be presented in this paper is aimed at demonstrating the attitude of Polish students towards the consumption of goods and services as well as verifying what socio-economic factors create their consumer behaviours. An attempt will be made to address the question of to what extent Polish students are able to distinguish actual needs that must be satisfied from those artificially created by fashion and marketing.

The underlying drivers of consumption are always the needs that need to be satisfied. Generally speaking, a need should be understood as a conscious lack of something. This lack makes an individual experience a certain degree of discomfort that causes the urge to take actions in order to reduce it by consuming specific goods or services. “Many service providers offer consumers a wide variety of options, and hence, it is important to understand how they can influence consumer choices of a particular option from a given assortment.” (Choi, Mattila, Upneja 2018, p. 6). The nature of such needs indicates the particular dimension of consumption. Excessive multiplication of needs while striving to satisfy them may lead to the emergence of consumerism. “Literature provides enough evidence to show that consumers get into conspicuous consumption of status products to improve their social standings, with peer pressure and social comparisons being two key influencing factors.” (Thomas, Wilson 2012, p. 44). In the discourse and research on the level and style of consumption, the concept of ‘needs’ is increasingly being replaced by ‘desires’, which are oriented towards possession and/or use of specific goods and services. These include concrete objects and services

which are devoid of any randomness features. The possibility of satisfying one's desires makes consumers experience hedonistic and even strongly erotic feelings – this is a kind of hedonistic version of a “daydream” (Cf. Campbell 2008). Nowadays, being a consumer seems to be the fundamental role performed by humans ever since they are capable of making conscious decisions – humans basically function as *homo consumens* ever since they are born. In the case of the consumption culture, the purpose of consuming is to satisfy the needs which are not vital for survival, and “... the brutal, unquestionable fact is that one needs, above all, to be a consumer before one can think about becoming anything else.” (Bauman 2006, p. 59). Contemporary humans focus their activities on consumption in terms of both obligation and form of spending free time (Baudrillard 2006).

Consumption behaviours represent an interesting indicator of both the cultural and the economic level of a given society. “Consumer behaviours are activities and actions taken to acquire goods and services for the satisfaction of needs, in accordance with one's hierarchy of preferences, along with all the manners in which such goods and services are used (real consumption).” (Żelazna, Kowalczyk, Mikuta 2002, p. 80). Consumers' activities affect their lives in both the microscale (family functioning, professional activity, relationships with friends, socio-economic status) and the macroscale (the economic situation of the country, the government's policies, economic relations of international nature), because “... the act of satisfying one's needs is influenced not only by the presence of other individuals in a social group but also by the specific cultural environment which determines the situation, place and time of its occurrence, as well as by the economic situation.” (Bylok 2013, p. 11). In the case of the young generation, consumption concerns both material things (clothes, electronic equipment, etc.) and immaterial goods, to a large extent concentrated on the virtual, network activity of the young generation. The means of satisfying needs, and thus the style of consumption, are closely related to the consumer behaviours manifested.

The determinants of consumer behaviours may be divided into two basic groups: internal and external. The former include, amongst others, physiological and mental, demographic, socio-occupational and economic features. In the case of the latter determinants, we analyse the following factors: geographic (related to climate, topography), economic, socio-cultural and informational/educational (Żelazna, Kowalczyk, Mikuta 2002). We can talk about the cultural conditions of consumption that are related to the socio-personality issues of the individual: “Psychosocial determinants, such as personality, culture, social class, the significance of the purchase, have a considerable influence on the reception of a product or service that can be shaped by marketing-mix instruments, but are also the result of individual perception derived from the individual's personal sensitivity (...). Purchasing barriers are largely due to the economic conditions”. (PATRZAŁEK, 2002, p. 88-89). Also, economic conditions are important in the consumption process, and include the consumer's income and the economic situation of the country. The effects of the above-mentioned conditions largely determine the specificity of consumer behaviours and the nature of consumption. In the case of children and young people, their consumer behaviours are also related to those factors (Swadźba 2016). However, a greater role in this regard is played by internal factors, with external determinants having merely an indirect effect on them. Hence the consumer activity of the young generation can be boiled down to a few basic aspects, namely:

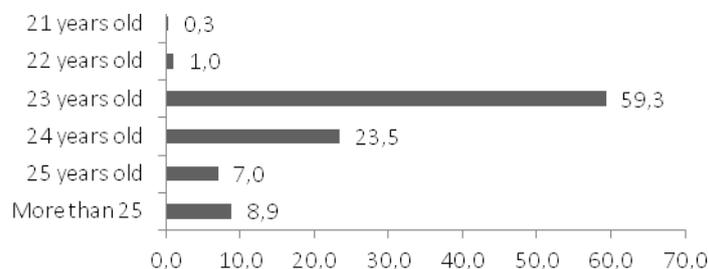
- purchasing (and consumption) of goods and services for personal use;
- purchasing (and potential consumption) for family needs;
- counselling in the field of purchasing goods and services which are not consumed;
- initiating, initiative activity in the purchasing of goods that can be consumed (Olejniczuk-Merta 2001).

Consumption and determinants of consumer behaviours – analysis of survey results

Methodology of research

The consumption behaviours of Polish students were analysed in 2015 as part of the Visegrad Standard Grant, entitled: “The economic awareness of the young generation of Visegrad Countries”. However, the present paper contains merely a small portion of all the analyses conducted and focuses on consumption amongst Polish students (as an element of economic awareness). The research was carried out using the auditorium questionnaire method amongst the students of the University of

Economics in Katowice, the University of Silesia and the Silesian University of Technology. The study group was selected in a purposeful manner, and the respondents represented not only humanities/arts and social faculties but also economic and technical faculties (with approx. 100 respondents from each faculty, resulting in 400 completed questionnaires for analysis). A total of 220 female (55%) and 180 male respondents (45%) were surveyed. The socio-demographic structure of the respondents is presented in Graph 1 as well as in Tables 1 and 2.



Graph 1. Age of respondents (%)

Source: Research: team; calculations: own

Table 1. Field of study (%)

Field of study	
Politechnic	24,7
Economics	26,8
Social	27,0
Humanistic	21,5
Total	100,0

Source: Research: team; calculation: own

Table 2. Place of residence (%)

Place of residence	
Village	13,7
Town to 20 thousand	6,8
Town 20-100 thousand	23,3
City 101-500 thousand	49,0
City 500 thousand and more	7,2
Total	100,0

Source: Research: team; calculation: own

Research results

The consumption amongst the young generation (and not only) is, to a large extent, determined by the financial resources available. In the case of students, money can be earned and/or received from family members or other sources (e.g. scholarships). The vast majority of the respondent students admitted that they received pocket money, yet with varying regularity and frequency (34% regularly; 14.8% often, but not regularly; 20.5% rarely), whereas 30.8% of the respondents receive no pocket money. The financial resources possessed may be a significant factor increasing or limiting the level of consumption as well as determining the nature of consumer behaviours (sensible, traditionalist or impulsive consumers). The level of financial resources determines the purchasing power and often translated into a specific style of consumption. At the same time, a very important role is played by the feeling of well-being and financial security, which does not always reflect the real and objective

indicators of income. In the case of the students surveyed, there is a poor relationship between the declared level of income per one family member of the respondents and their assessment of material conditions (Table 3). It can therefore be supposed that students either do not know the actual income in their families or have all their needs satisfied even with a small amount of financial resources. It is interesting to note, however, that many students declaring a monthly income of over € 1,000 per person in a household state that their families cannot afford extra expenditures and, in a few cases, they also declare the necessity for saving up.

The analyses concerning the level and nature of consumption take into account, above all, the consumers' real sense of their purchasing powers, which seems reasonable in the age of multiple credit opportunities. A customer who feels a specific compulsion to purchase a new product or service will take all necessary measures to acquire the funds for the purchase. hence the popularity of the so-called "payday loan", amongst other things.

Table 3. Income in the student's family versus the assessment of its financial conditions N=400

Assesment of household material condition	The income per person in student's household								
	Up to 150 €	151-180 €	181-360 €	361-480 €	481-750 €	751-1000 €	More than 1000 €	No response	Total
We have enough money for everything (e.g. expensive trips abroad, frequent changes of new cars...)	0	0	5	4	11	9	17	6	52
We do well, but cannot afford extra expenses	4	16	55	44	45	24	20	40	248
We do ok, we need to save	5	18	10	8	7	7	2	10	67
We live frugally, but we have enough to eat	4	4	6	3	2	0	1	2	22
We live very poorly, often short of money even for food	0	1	0	0	0	0	0	0	1
Another answer	0	0	0	0	1	1	0	1	3
No response	0	0	0	0	1	1	0	5	7
Total	13	39	76	59	67	42	40	64	400

Source: Research: team; calculation: own

The consumption behaviours of the young generation may both represent the reality and affect the socio-economic situation of a given society. On the one hand, certain cultural standards, lifestyles and value systems influence the nature and level of consumption. On the other, it is the level and manner of consuming that has an effect on socio-cultural phenomena. Young people find their role models in their surrounding environment and will pass them onto their children in the future. For this reason, an analysis of consumption trends in the young generation is an important and interesting instrument for describing a given community. The analysis of the material collected indicates that Polish students demonstrate the attitude of rational management of financial resources and, during their day-to-day purchases, they analyse both the cost and the quality of the goods as well as the financial resources possessed, and their purchasing decisions are determined by a favourable relationship between the price, quality and financial resources possessed. Detailed information concerning the students' attitude to their day-to-day purchases can be found in Graph 2.



Graph 2. Statements describing the way of making everyday purchases (%)

Source: Research: team; calculation: own

Representatives of the young generation find it important to spend only within their budgets, but they also prefer goods and services which they have known for a long time. It is therefore evident that many of them exhibit the traditionalist and, at the same time, rational attitude. There are surely impulsive consumers amongst them as well.

Table 4. Income in the student's family versus the attitude to purchasing well-known branded products

Statement regarding buying brands		The income per person in student's household								
		Up to 150 €	151-180 €	181-360 €	361-480 €	481-750 €	751-1000 €	More than 1000 €	No response	Total
I would like to buy things with a good brand and quality, but I can usually not afford it	Definitely yes	1	8	14	4	2	5	1	8	43
	Rather yes	7	11	31	16	31	10	11	18	135
	Rather no	1	13	23	31	29	17	15	23	152
	Definitely no	4	5	5	5	4	7	10	4	44
	No response	0	2	3	3	1	3	3	11	26
	Total	13	39	76	59	67	42	40	64	400
The quality and good brand is less important for me than buying at reasonable price	Definitely yes	3	11	23	18	13	4	3	8	83
	Rather yes	8	17	21	25	26	15	19	28	159
	Rather no	1	6	17	8	19	14	9	20	94
	Definitely no	0	2	4	2	4	3	2	1	18
	No response	1	3	11	6	5	6	7	7	46
	Total	13	39	76	59	67	42	40	64	400

Source: Research: team; calculation: own

The research on consumer behaviours of the young generation may be based on an overview of two basic issues, namely the attitude to day-to-day purchases and the opinion on purchasing well-known branded products. These two indicators demonstrate the type of consumers we are dealing with and to what extent they are affected by hyperconsumption. In this regard, Polish students exhibit rational attitudes to both the manner in which they make their day-to-day purchases and the tendency to purchase well-known branded products. They find it important to prudently manage their budget and, therefore, primarily purchase only those items which they need and have been chosen beforehand on the basis of a favourable price-quality ratio. The situation is no different in the case of purchasing well-known brands – here again, the respondents indicate that the brand is not the main determinant of purchasing decisions, but it is the good quality at a reasonable price that matters above all else. Detailed data are summarised in Table 4.

Conclusion

An analysis of consumer behaviours amongst the young generation may be an interesting complement to the studies on consumer attitudes in the entire society.

Cultural determinants of consumption include: system of value, lifestyle; culture and tradition, socialization. The economic determinants include: income, economic situation, the level of economic awareness; the supply of goods and services. “Consumer buying behaviour is a complex decision process and based on various choices and preferences. Consumer buying behaviour is dependent on various

factors like personal preferences, social factors, psychological factors, purchasing power, culture etc. It is also dependent on various sales promotion strategies like coupons, price discounts, free samples, buy one get one schemes etc.” (Nathwani 2017, p. 1).

Young people will imitate certain behavioural patterns in their adulthood, and this will have a considerable impact on the culture and economy of the country in which they function. “Classical economic theory explains individual consumption

behavior as a rational calculation based primarily on a cost–benefit analysis (...).” (Schrank, Running 2018, p. 187). Students primarily represent consumer behaviours and decisions that concern goods and services purchased for their personal use. They are definitely less likely to do so for other individuals (even for the closest family members). Polish students are headed primarily by economic determinants. Cultural determinants are definitely less important in their consumer behaviour. The development of proper consumption patterns is an educational task of parents and educational institutions and it primarily boils down to rational management of the financial resources possessed, which is undoubtedly an element of economic awareness.

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LATE SUBMISSION

TESTING TRANSVERSAL COMPETENCES IN THE PROCESS OF PRACTICAL TEACHING OF STUDENTS

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Abstract: In the present paper its Authors present and evaluate practical teaching methods, in this evaluations of student participation results in the tested models of transversal competences shaping. The analysis has been narrowed to the case study of the selected university (being a partner in the “ERASMUS+ project ”*The acceleration method of development of transversal competences in the students’ practical training process*”, and also represented by the Authors). In the paper the Authors attempt to present and justify the course of testing and verifying the accepted reference model of transversal competencies development in the selected student group. The measurable value of the paper is empirical verification of the accepted reference model in the context of selected, key transversal competencies growth, which were: entrepreneurship, creativity, communicativeness and groupwork.

Key words: transversal competencies, practical teaching methods, entrepreneurship, creativity, communicativeness, groupwork

Introduction

Generally, at higher education institutions there are three levels of training students that are complementary to one another: formal, non-formal and informal ones. All these levels are relevant as they complement one another. This concerns in particular practical training aimed at knowledge acceleration as well as development and improvement of students’ practical competencies – expected on heterogeneous labour markets, which are no longer constrained by territories (Poczmańska, Saryusz-Wolski, Stęchły, Tauber, Ziewiec-Skokowska 2015, Rostkowski 2004, Sidor-Rządkowska 2006, Stankiewicz 2005). For entrepreneurs apart from practical competencies it is also important to develop the social capital, in particular such its elements as social networks, organisational culture and trust (Bylok, Cichobłaziński 2016). Various methods are applied in formal training processes that facilitate acquisition of knowledge and particular skills and their future utilization in professional practice. Non-formal training in turn, at Polish universities is a formalized institutional form, similarly to formal training. However, it is carried out outside programmes that allow for gaining qualifications recognized in the legal system. The third level of training at Polish universities – informal training, is a form of training that functions outside the formal training system. Its nature is usually non-institutional, sometimes non-system. Informal training is dominated by non-formalized, horizontal relationships among the learners. Informal learning is chosen voluntarily, unlike the traditional educational system where it is compulsory. In the present paper the cognitive focus comprises most important transversal competences (Jędrzejczyk 2013, Oleksyn 2006), such as: entrepreneurship, creativity, communicativeness, groupwork and testing their growth in practical training processes (Komisja Europejska 2002, Parlament i Rada UE 2006). The portfolio of practical training methods in formal training includes: problem-solving methods, activating methods, demonstrating methods, programme methods and practical methods. The method that is also frequently applied in formal training is groupwork – in formalized groups of students. In formal practical training one can observe a dynamic growth in applying in laboratory classes programme methods with the use of simulation games MMOG - Massively Multiplayer Online Game). Frequently, informatic simulators that reflect heterogeneous systems/environments in business practice are designed by students in laboratory classes. Other methods used to supplement the aforementioned ones include: brainstorming, observation, panel discussion, problem lecture. In the analytic and empirical part of the present paper its Authors attempt to present and justify the course of testing and verifying the reference model of transversal competences development (Kiełtyka, Jędrzejczyk, Kucęba 2011) in the selected group of students. The measurable value of the paper is the empirical verification of the adopted reference model, in the growth context of the adopted and summarized above transversal competences. The summarized results reflect the research conducted by the Authors within the “ERASMUS+” project ”*The acceleration method of development of transversal competences in the students’ practical training process*”, comprising seven universities from four EU countries: Poland, Slovenia, Finland and Slovakia.

Description of basic activities within the project

Within the research procedure in the period from 01.10.2015 to 31.08.2018 employees of the Institute of Information Management System (the Faculty of Management of Czestochowa University of Technology) carried out an international research project *"The acceleration method of development of transversal competences in the students' practical training process"*. The underlying goal of the project is to develop and implement an innovative method that accelerates development of students' transversal competences through improved application of formal teaching.

One of the detailed goals of the project is developing a method that will effectively combine various elements of training (practical training and transversal competences development (Whiddett, Hollyforde (2003)) in order to accelerate preparation of social sciences students to start employment, considering the needs of employers, in particular in the scope of transversal competences. Therefore, it is relevant in the intention of project participants to develop a method to trigger creativity and innovativeness in the process of training. The project is carried out within the Erasmus+ programme – the key action: Cooperation for innovation and good practice. The financing entity is the Foundation for the Development of the Education System (FDES) – the National Agency of the Erasmus+ programme. The project leader is Poznan University of Technology and the partners include: Czestochowa University of Technology (represented, among others, by the Authors of the present paper), Wroclaw University of Economy, Western Chamber of Industry and Commerce, in Gorzow Wielkopolski, Centria - ammattikorkeakoulu (Finland), JEDU Jokilaaksojen koulutuskuntayhtymä (Finland), Univerza v Mariboru (Slovenia) and Univerzita Mateja Bela v Banskej Bystrici (Slovakia).

Research works according to the accepted schedule and determined beforehand project goals comprised the following actions – in chronological grasp (The project 2016):

1. Preparing a report on applied methods of transversal competences development and practical training methods at higher education level (primarily analysing secondary sources, benchmarking).
2. Recognizing the demand for transversal competences among entrepreneurs – agreeing on coherent terminology and research so as to consider the economic specificity of partner countries, preparing and evaluating research results ("Research methodology for recognizing the demand of employers for transversal competences in the project", "Questionnaire to test the demand for transversal competences among entrepreneurs").
3. Developing a matrix of practical training methods and transversal competences training dependencies – preparing proposals of practical training methods analysed as a tool for transversal competences training and their importance for employers, analysing data from partners in order to select data for the matrix, developing the final version of the matrix and its characteristics (Matrix of the dependencies between practical teaching methods and an increase in students' transversal competences).
4. Preparing papers and developing a monograph summarizing research results in partner countries (The monograph summarizing the research results and analysis form partner countries).
5. Developing models of transversal competences development processes within practical training – selecting the training processes to be tested, preparing the specification and map of the process reference model, developing the documentation of the reference model process ("Developing the selection principles of practical training methods for the reference models of processes (taking into account the developed matrix in IO3) and summarizing the consultation of principles introduced together with the partners", "Instruction for developing and testing models of transversal competences processes within practical training", "Selection of groups for testing process models").
6. Analysing and aggregating results of process models testing – designing the testing process, preparing guidelines concerning various test groups and selecting the groups, process testing, studying the pace of competences level change, aggregating the test results in the form of database, evaluations, publications („Instruction for analyzing the results of testing proces X", „Development of the results of testing process 5 (CUT), „Partial report concerning the results of testing processes in the ATC ERASMUS + project, Czestochowa University of Technology").
7. Selecting the most effective training processes – the review of obtained results and developing the characteristics of training processes, which being applied most effectively develop transversal competences among students, identifying and analysing the influence of cultural factors and considering their impact on training, preparing the final version of the method, ready to be implemented both in partner countries and in other countries, developing the documentation of

tested process reference models („Table to be filled in to evaluate factors that could have influenced the results of an increase in competences in the tested processes”, “Consolidated report with the results of process testing in the project ATC ERASMUS+”, „The most effective training processes”).

8. Developing the final documentation of the method for transversal competences training within practical training – developing additional instructions and guidelines for implementing entities, which will allow for implementing the method in any country, without the necessity of introducing significant modifications to the basic training process.

The tasks according to the adopted schedule were carried out simultaneously by all the partners participating in the project.

The following has been accomplished in the project *The acceleration method of development of transversal competences in the students' practical training process*: an overview of the existence and use of practical teaching methods in the students' training process in selected EU countries was performed and the issue of the degree of potential importance of transversal competences in enterprises was examined. The outcome of the work was summed up in two reports: *A report concerning methods used to teach transversal skills and practical teaching methods* (IO1) and *A report on the research into the demand for transversal skills among entrepreneurs* (IO2).

Influence of factors associated with training methodology applied at higher education institutions

Training processes results are highly influenced by applied training methodology. Project partners frequently pointed out the potential influence of the teaching methodology of subjects directly or indirectly associated with transversal competences on the results of testing the growth pace of transversal competences.

The group of experts of Czestochowa University of Technology evaluated the influence strength of this factor on the scale from 0 to 5, where 0 means no influence and 5 very strong influence. The evaluation has been presented in Figure 1 (Kieltyka, Kucęba, Jędrzejczyk, Kulej-Dudek 2018, Whiddett, Hollyforde 2003).

The highest ranks were given to the following factors: Applying innovative methods and forms of work with students and Active inclusion of students in the learning process) (both factors were given the rank 5). Effective training depends on the ways of managing training, that is methods and forms of work with students. On the basis of the programme of studies and appropriately selected curriculum the teacher should plan training methods, ways of learning, didactic tools and programme content, that is establish a strategy of actions. It should be remembered that each of the applied methods may be effective if it suits specific needs of the recipient. Methods based on student's active operation have impact on larger and better acquisition of knowledge than methods that do not inspire to activity or do it only to a small extent. Application of active methods in the training process may increase the effectiveness of training and learning, develop creativity and creative thinking and also the ability to cooperate and communicate within the group. Other important factors are also: Appropriate organization of classes, among others defining the purpose of the classes, Formulating and asking key questions during classes and Using feedback from students – 4 points each. Key questions should include the main issues of classes, be closely related to the goal of the classes, indicate a wider perspective of the discussed issue and result in student's interest in the carried-out task. These questions lead to discussions and receiving feedback in the scope of search for answers, justifying views and way of thinking, as a result making the students involved. Less important is Reference to already acquired knowledge and Being able to maintain concentration in a group of students – 3points. The Authors of the present paper believe that in case of university studies it is not a difficult thing. Concentration is the key to better memory, effective learning and work, and also achieving success in life. It is also an ability and as any other ability it can be developed through proper exercises.

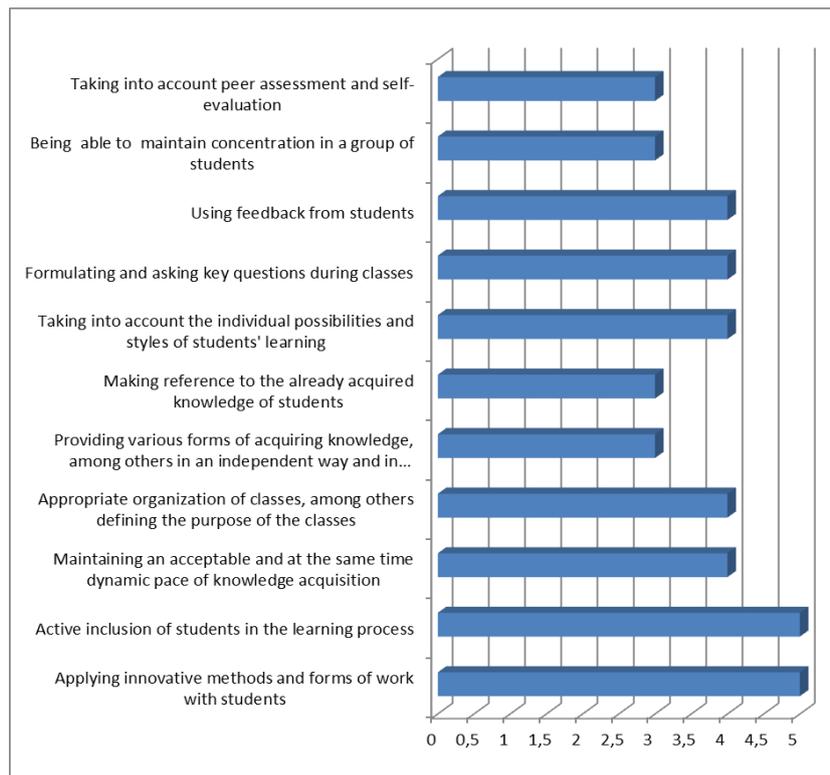


Figure 1. Evaluation of factors associated with the training methodology applied at universities on the results of transversal competences growth pace testing

Source: own elaboration

It needs to be mentioned that each of the partners also evaluated these factors and aggregated evaluations as to the strength of this influence presented by teams from particular universities have been summarized in Table 1.

Table 1 Factors associated with teaching methodology and assessments of their impact on the test results.

Factor	1	2	3	4	5
Applying innovative methods and forms of work with students				(4,0)	
Active inclusion of students in the learning proces					(4,8)
Maintaining an acceptable and at the same time dynamic pace of knowledge acquisition			(3,8)		
Appropriate organization of classes, among others defining the purpose of the classes				(4,0)	
Providing various forms of acquiring knowledge, among others in an independent way and in different size groups			(3,2)		
Making reference to the already acquired knowledge of students		(2,8)			
Taking into account the individual possibilities and styles of students' learning			(3,6)		
Formulating and asking key questions during classes				(4,0)	
Using feedback from students					(4,2)
Being able to maintain concentration in a group of students			(3,4)		
Taking into account peer assessment and self-evaluation		(2,8)			

Source: Report IO7 Dokumentation of Intellectual Output 7 under the name „The most effective training processes”

While summarizing the results presented in Table 1 it can be concluded that (The Project 2016, The Project 2018):

- all the analysed factors have an above-average (on average 2,5) influence on the testing results,
- close to “very strong influence” (4,8) impact has: active inclusion of students in the learning proces
- equal or close to „strong influence” impact on the testing results have: using feedback from students (4,2), formulating and asking key questions during classes(4,0), applying innovative methods and forms of work with students (4,0), appropriate organization of classes, among others defining the purpose of the classes (4,0).

The next sub-chapters of the present paper present the aggregated results of the measurement of competences pace growth results in the groups of tested students with the use of the tested model.

Evaluation of competences pace growth

The evaluations that were analyzed come from two questionnaires (The Project 2016, The Project 2018):

- the questionnaire, which allows to assess the rate of an increase in competences (the questionnaire filled in by students after each method used in the tested process);
- the questionnaire, allowing for students’ self-assessment in relation to 4 transversal competences before and after the testing process.

In the questionnaires, students had to answer one question for each skill. In view of the fact that each transversal competence consists of a different number of skills, a differentiated number of questions was asked in relation to transversal competences in accordance with the list of questions in the questionnaires. For subsequent competences the number of questions was:

- entrepreneurship - 6 skills (6 questions),
- creativity - 3 skills (3 questions),
- teamwork - 7 skills (7 questions),
- communicativeness - 8 skills (8 questions).

The total number of evaluations made by each student is:

- in the case of first questionnaire: 72 evaluations on a scale of 1-5 (24 evaluations after each of the three methods obtained from each tester),
- in the case of second questionnaire: 48 evaluations on a scale of 1-5 (24 evaluations before and after testing the process obtained from each tester).

The total number of evaluations obtained before and after testing by one student is therefore 120. The basic self-assessment results are presented below.

Evaluation of the rate of an increase in a competence - analysis of data from the questionnaire (the questionnaire filled in by students after each method used in the tested process)

The following results were developed on the basis of the data collected in the IO6 task during process 5 testing (CUT). The full scope of results is available in the report from the IO6 task entitled Development of the results of testing process 5 (CUT).

Table 2 summarizes all the results of students’ self-assessment. The analysis took into account the average evaluations of an increase in competences after each method for each of the students participating in the testing. The method of their calculation is presented in IO6 entitled Development of the results of testing process 5 (CUT).

The minimum (min)/maximum (max) value of the average of students’ evaluations of a given skill of a selected transversal competence before testing means that on the basis of the data the average value for the level of a competence was calculated before and after the entire process for each student. This value indicates the minimum/maximum average per student out of the entire group of students participating in testing.

Table 2. The average values of an increase in students' transversal competences for subsequent methods tested in process 5 (CUT).

Competences	Methods in process 5 (CUT)	ΔU_{\min}	ΔU_{\max}	ΔU_{Wed}
entrepreneurship	Brainstorming	3,88	4,13	3,99
	Grup work/ team work	3,63	4,13	3,95
	Problem lecture	3,56	3,88	3,75
creativity	Brainstorming	3,56	4,19	3,9
	Grup work/ team work	3,63	3,94	3,81
	Problem lecture	3,69	3,88	3,79
teamwork	Brainstorming	3,81	4,13	4,01
	Grup work/ team work	3,75	4,31	4,1
	Problem lecture	3,69	4,14	3,93
communicativeness	Brainstorming	3,56	4,25	3,95
	Grup work/ team work	3,94	4,31	4,08
	Problem lecture	3,56	4	3,88

Source: „Partial report concerning the results of testing processes in the ATC ERASMUS + project, Czestochowa University of Technology”.

Table 3 Average values of an increase in the level of students' transversal competences for subsequent transversal competences in process 5 (CUT).

Average values of an increase for the group testing the process for the selected competence	Method number in process 5 (CUT)	Minimum value (min) of the average of students' evaluations of a given skill of the selected transversal competence before testing	Maximum value (max) of the average of students' evaluations of a given skill of the selected transversal competence before testing	Average values of students' evaluations for a given competence
entrepreneurship	before	1,83	4,17	3
	after	3,17	5,00	4,09
creativity	before	1,67	4,33	3
	after	3,00	5,00	4,00
teamwork	before	2,43	4,29	3,36
	after	3,29	4,86	4,08
communicativeness	before	3,25	4,25	3,75
	after	3,88	4,88	4,38

Source: „Partial report concerning the results of testing processes in the ATC ERASMUS + project, Czestochowa University of Technology”.

Results

With reference to the obtained results summarized in the above tables, it can be stated that:

- The tested students (in the self-evaluation process) evaluated the level of possessed skills too highly.
- Students rated the level of their creativity as the lowest possessed competence and communicativeness as the highest.
- The students (in the self-evaluation process) evaluated degree of change of possessed skills after using tested teaching methods too highly.
- The highest dynamics of change was observed in the competence of teamwork and the smallest - in the creativity.
- Problem lecture is comparatively the least effective method.
- The students (in the self-evaluation process) evaluated degree of change of possessed abilities after using tested teaching methods highly.
- The highest increase of one of the component competences after using all the methods is 4,17.
- The lowest increase of one of the component competences after using all the methods is 3,67.
- The students evaluated the level of possessed skills after the entire testing process highly – average level of skills 4.25.
- Students rated the level of their communicativeness and teamwork as the highest possessed competences.
- The highest increase of the competence was observed in the creativity and the lowest - in the communicativeness.

Discussion

The study has some limitations. First of all, the study has been limited to a selected dean group in the indicted course of studies. The selection was purposeful, with some assumptions. Each Partner specified in the application tested at least 1 process covering at least 3 practical teaching methods selected for particular processes. The duration of the process had to be longer than one full day (24 h). Each process was tested on at least 3 test groups. Each group was contained at least 5 students, which means that the process was tested at a minimum of 15 students. Object of research was transversal competences, such as: entrepreneurship, creativity, communicativeness, teamwork.

Detailed discussion have been conducted that concerned the presented studies and obtained results. It has been concluded that in the years to come the most interesting direction of future studies will be carrying out the testing process at universities located in other regions of Poland.

Conclusion

The formulated conclusions, which are the result of the conducted research, confirm the underlying assumption in the project that considering the needs of European employers (particularly in the scope of transversal competences) it is vital to combine various forms of training (formal, non-formal, informal and practical ones) and heterogeneous training methods. This is important in the context of preparing the students of scientific studies to start employment as well as making effective and optimum decisions in real conditions of their future professional work. This also confirms the necessity to diversify practical training methods and adjust curriculums to the needs of “professional practice”, not only in the local territorial space but also European and even global one.

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