

PROBLEMS OF MANAGEMENT IN CONTEMPORARY ORGANIZATIONS

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INTRODUCTION

For growing enterprises, which want to compete on the free market, modern management has always been an important aspect of the functioning. Modern management means using all available and, at the same time, the latest scientific discoveries, not only technical and technological ones, but also (and perhaps first of all) in the field of humanities.

Nowadays, in the era of broad access to the financial resources and numerous concessions and facilities during setting up a business (eg preferential loans for business development, non-returnable loans for setting up new businesses, legal assistance, industrial zones - government agencies, business incubators) and limited natural resources, the key resource of a company becomes a man, an employee together with his creativity, qualifications, skills, motivation and personality.

The significant importance of human resources imposes the need to seek more effective management style than the traditional one focusing on the centralization of power. New management, and in particular New Leadership, draws the attention of managers to the positive effects of including employees in the management process (participation) and to the empowerment of employees, or appropriate management of their potential

The new way of managing human resources does not set increasing the economic value of the company as the main goal, but first of all it is directed at the sustainable development of the company. High competition, instability of consumer preferences, limited human and natural resources focus the management of companies on the quality of their products or services. Managers turn to an employee, stimulate his innovativeness, motivate him appropriately, knowing that it is mainly in the staff where lies the strength of the enterprise. The people, employees are the ones who become the guarantee of sustainable development of the organization.

Researchers in the social and economic sciences are constantly looking for new theories which most accurately describe the motivations, ambitions, needs, etc. of subsequent generations (X, Y, Z), living in different conditions in every respect. Only the accurate characteristics of future generations of employees can lay the foundation for using their potential, by choosing the right methods, techniques and tools to shape behaviors desired by employers.

However, it should be kept in mind that economic development is influenced not only by supply but also by the demand for goods or services (a principle broadly described by A. Smith regarded as the father of free market economy). Therefore, in the considerations on modern enterprise management, it is necessary to take into account not only the employee's perspective, but also the consumer's perspective. For this purpose, demographic analyzes related to appropriate marketing methods and strategies become useful. Managers of modern enterprises not only have to read the needs of their potential consumers, but also their task is to shape these needs, create fashions or trends.

Furthermore, a significant challenge for the managers of modern enterprises became progressive globalization. The world of the twenty-first century "shrinks" in terms of the speed of information transmitted, as well as the movement of people and goods. Multicultural and multilingual international enterprises, the beginnings of emancipation of women in developing countries, sharing knowledge for application as well as scientific and development purposes (the opportunity to study in a foreign country, e-learning, internships, scholarships, etc.), the opportunity to live and find attractive work outside of your home country, economic, scientific, military, epidemiological and sanitary partnerships - these are only a few selected examples of positive aspects of globalization.

This monograph consists of numerous scientific research on the most significant modern problems and issues concerning management of contemporary organizations. The scope of many research is international, researches include single countries analysis but also several countries comparisons of developed and developing countries all around the world. The problems mentioned concern numerous aspects of management: economic, social, strategic, marketing, human resources both theoretical as well as practical in nature.

The first part of the monograph revolves around different economic and social aspects of modern management such as finances, financial performance, competitiveness or consumer attitudes. The opening article concerns the methods of company's solvency assessment, both simple as well as more complex ones. Another article focuses on the subject of entropy in portfolio management aiming at optimizing the financial decision-making processes and showing how rational decisions can be made in an irrational, changing environment. The third article analyzes the impact of environmental dimension in strengthening the competitiveness and improving financial performance of companies in the field of industry. Next article highlights social and economic impact of the expansion of Polish casinos in the years 2010-2014 resulting from the introduction of Polish Gaming Law, including its effect on the wages, unemployment or formation of new companies. Two following articles take up the subject of oil market and more specifically oil price change. The first one analyzes factors which influence crude oil price changes and the other one the backgrounds of oil price changes. Moreover, they discuss the demand, supply and consumption of oil in some OPEC and non-OPEC countries. The last article elaborates on the attitude of young European consumers in the field of tourism adopting multinational approach, particularly focusing on the demands and criteria of decision-making of the consumers in the touristic field in chosen countries.

The second part of the monograph takes up the subject of modern methods and strategies implemented in the fields of marketing and management. The first article proposes a theoretical model of marketing in capital market, identifying the relationship between marketing activities and company's performance. The second one analyzes the management aspects of system of school catering on an example of Kenya. Next article focuses on marketing logistics analyzed as a sustainable competitive advantage, showing the logistic centre as an efficient system which can have a positive impact on product affordability. Another article in this chapter presents the integrity

factors of Halal food factors, its traceability and certification, in terms of supply chain management in this kind of food industry. The final two articles concern the idea of Corporate Social Responsibility and its different contexts. The first one reviews selected Polish practices in terms of health and safety at work as a part of Corporate Social Responsibility in company's activity. And the article closing this part of monograph shows examples of Polish organizations and their CSR practices directed to the development of communication, integration as well as commitment of the employees.

The third part of the monograph contains the articles on the topic of various problems of functioning an organization in a modern, globalized world, including among others the issues of entrepreneurship, labour market or unemployment. The first article of this part compares female entrepreneurship in developed and developing countries, discussing among others qualifications and characteristics of female entrepreneurs and problems which women encounter in the entrepreneur activity. Next article analyzes the problem of unemployment by educational attainment, educational opportunities and unemployment issues in the European Union as well as the minimal wage, its impact on the economy and its legal regulations in the EU. Another one focuses on the role of public-private partnerships and public expenditures in the field of education, presenting public-private partnerships in different countries as an example of collaboration between the public and the private sector aimed at more innovative and efficient educational system. The last article in the third part of monograph explores the issues of diagnosing and improving health safety culture in the Polish context.

The miscellaneous issues of international significance taken up in the scientific papers of this monograph depict modern management as a complex and interesting field of research, especially in the contemporary globalization era.

The presented monograph is a collection of selected compilations which main thesis were conferred during the 8th International Conference of Management: Leadership, Innovativeness and Entrepreneurship in Sustainable Economies (ICOM 2018), which took place in Faculty of Management, Czestochowa University of Technology, 7-8th June 2018. This conference as well as materials published within its framework have been co-financed by the Ministry of Science of High Education in the frame of the found for Activity Disseminating Science No 805-/P/-DUN/2018.

Csaba Bálint Illés, Anna Karczewska, Łukasz Skiba

Part 1

Economic and social aspects of modern management

COMPANY'S SOLVENCY ASSESSMENT METHODS: FROM SIMPLE TO COMPLEX ASSESSMENT MODELS AND BACK AGAIN

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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 nonparametric 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 applied simple models 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 the Kralicek's Quick Test.

Key words: 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. The

company must be sure and substantiate its solvency for the next year, so it is important to know which methods and models to use.

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 simple 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 simple 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. This fact can also be considered an argument for conducting a study on the application of this test to assess the solvency of small and medium-sized enterprises in Latvia.

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 and thereby maintaining the principle of business continuity.

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: simple, discriminant, logit and probit.

The first representative of simple 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. Tamari warned against the possibility of making wrong conclusions using only individual 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. After Tamari appropriated the weights in a rather elementary way, he concluded that his index allowed distinguishing companies that subsequently failed and the ones which did not. 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 simple 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, 1999, 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). For example, on the data of 1504 Czech companies, the model showed 71.43 % accuracy of distress prediction (Kuběnka, 2016, pp. 16–19).

Active research in the area of creating simple models is observed among Russian and Belarusian researchers. For example, Professor G.V. Savickaya proposed her credit scoring model for assessing the financial position of the enterprise (Savickaya 2002, pp. 678–680). In contrast to the model of Doncova-Nikiforova (FIB), in the model proposed by Savickaya the classification of the company takes place by five classes and for this purpose three financial indicators are used. An interesting approach to the creation of three models was used by A.V. Kolyshkin (Kolyshkin 2003, pp. 21–23), who selected the most frequently used indicators in bankruptcy risk prediction models and assigned them weights based on the frequency of their occurrence, and then the critical values of the models were determined. In the model by Masenko (Masenko 2009, pp.10–12), seven parameters are used, the assessment of which is carried out on the basis of a rating scale from +2 to -2 for obtaining a rating score. Despite a variety of the proposed Russian models of this class, they are characterised by a lack of verification of models, which results in the lack of objective substantiation of practical use for assessing the solvency of enterprises. Another interesting approach in distress prediction is proposed by D. Šķiltere and R. Žuka. The research is based upon statistical rating of enterprises and includes 8 financial indicators. For every indicator a standard as well as a weight ratio is set and after standardisation, every result is directed to the one of five groups that assigns a score. Finally, the sum of the score directs to which of four groups the company belongs (Šķiltere, Žuka 2007, pp. 249–251).

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 simple 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 simple 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 simple 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.

To create the Solvency Model Scale, the following steps were taken:

1. 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.
2. For each of the 10 indicators the average value, standard deviation, minimum and maximum value, 20, 40, 60, and 80 percentiles were calculated.
3. Average and standard deviation were defined by dividing each of the ten indicators into two groups in solvent and insolvent enterprises.
4. Outliers were excluded from the estimated 10 financial indicator results.

5. After the outlier exclusion, the statistics were calculated without and within splitting into two groups as indicated in Steps 2 and 3.
6. In all 10 options, scales were created for the evaluation of all financial indicators.
7. In each of the 10 options for all 10 indicators, each company was assessed according to the scale.

Table 1. Financial Indicators Included in BONTEST

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)

8. 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.
9. The best classification option was specified for each indicator.
10. 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.
11. 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.
12. The best option was selected according to the highest value of the area under ROC.
13. 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.
14. Tests of possible excluding of some indicators were performed.
15. 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.

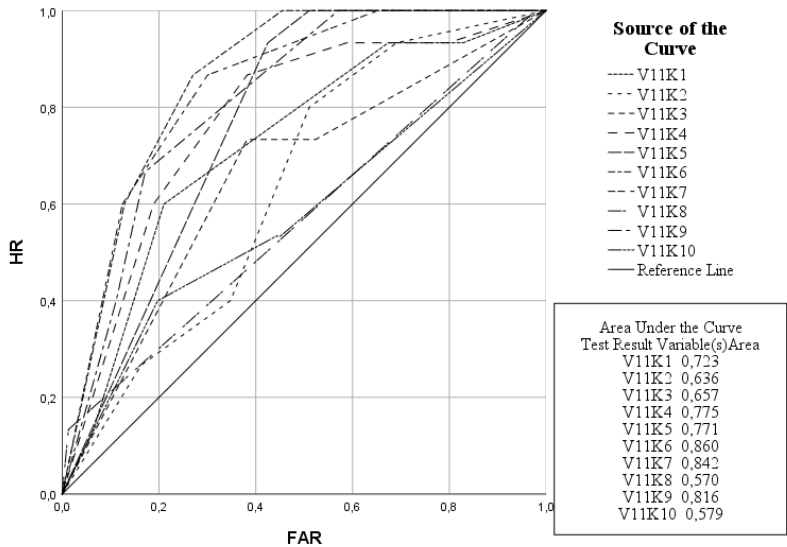


Figure 1. ROC curves for the best option in all financial indicators

Source: Created by the authors

The best option results can be seen in Fig. 1, where HR represents correctly classified insolvent companies, and FAR – incorrectly classified solvent companies. In Fig. 1, the classification is acceptable, and 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 BNITEST-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.

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 model operates in three stages (Keglević Kozjak, Šestanji-Perić 2016, p. 16). The first step is to collect and summarise data from the company's annual report. 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:

- The worst position – there is a high probability of bankruptcy. It is necessary to guard against business relations with this company.
- Weak position – there is a possibility of bankruptcy. Transactions should be secured: pledge, owner or manager's guarantees.
- In-between position – the company is located between a good and a bad state. Business relations should be secured through financial guarantee instruments.
- Average position – the company operates well, but external negative trends can cause serious business and solvency disruptions. It is necessary to insure transactions against insolvency.
- Very good position – the company operates well; the probability of insolvency is low.
- Ideal position – the company operates perfectly, the risk of insolvency is very low.

The authors of the research suggest the following scale for a company financial position: less than 1.7 – the worst position, under 2.4 – a weak position, under 3.1 – an in-between position, under 3.8 – an average position, under 4.5 – a very good position, 4.5 and above – an ideal position.

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.

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
N_T	113	123	130	147	141	121	120	126	126	117
N_S	105	114	123	136	134	111	111	115	116	111
N_I	8	9	7	11	7	10	9	11	10	6
M_T	19%	23%	22%	20%	18%	26%	32%	37%	33%	26%
M_S	13%	19%	18%	20%	19%	23%	30%	33%	34%	26%
M_I	88%	67%	86%	27%	14%	60%	56%	73%	20%	17%
P_T	81%	77%	78%	80%	82%	74%	68%	63%	67%	74%
P_S	87%	81%	82%	80%	81%	77%	70%	67%	66%	74%
P_I	13%	33%	14%	73%	86%	40%	44%	27%	80%	83%
N – number of companies; M – error; P – accuracy; index: T – total; S – solvent; I – insolvent										

Source: Created by the authors

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.

Conclusions

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 simple 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 simple models is the model developed by Meir Tamari (1966) followed by models by Moses and Liao (1987), Kralicek quick test. Furthermore, there are models by Savickaya (2001), Dontsova-Nikiforova (1999), Masenko (2009) and Skiltere – Zuka (2007). 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 simple 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 ROC curves are suitable to make the required tests to evaluate and determine the best one of the proposed options. The classification abilities for BONITEST 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.

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ENTROPY IN PORTFOLIO MANAGEMENT

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Abstract: An interdisciplinary, self-developed model – M&M model – was put into the focus of the research and the present paper, which model prescribes the dispersion of portfolio from achievements of system theory and chaos theory. The model and the procedures would like to show interdisciplinary ways in the field of portfolio management, 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. But most interestingly, as a result of the research, it has emerged that there is such a (ir)rational distribution that can be more profitable and recoverable without human (automatic) ordered distributions or even restructurings. 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, 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 would like to carry the self-developed, heuristic M&M model, as optimization aid and based on it the Rolling Nuts Method, 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, pp. 77–91) was criticized because his theory considers only rational investors. This theory was applied by Sharpe and Lintner (1965, pp. 13–37), 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, Tversky 1979, pp. 263–292). 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).

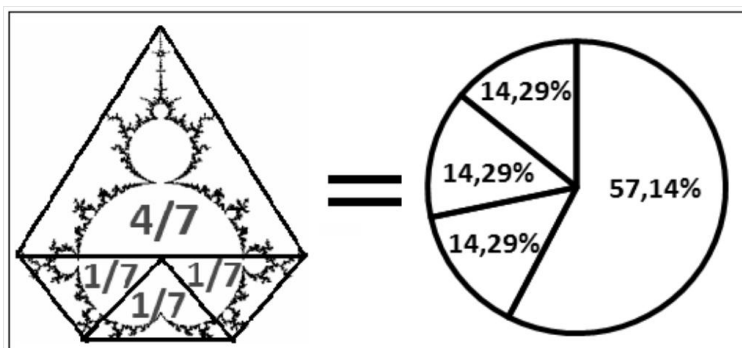


Figure 1. The M&M model and its distribution

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, pp. 8–12). 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, Thaler 1995, pp 73–92).

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 permanent portfolio theory (PP) 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).

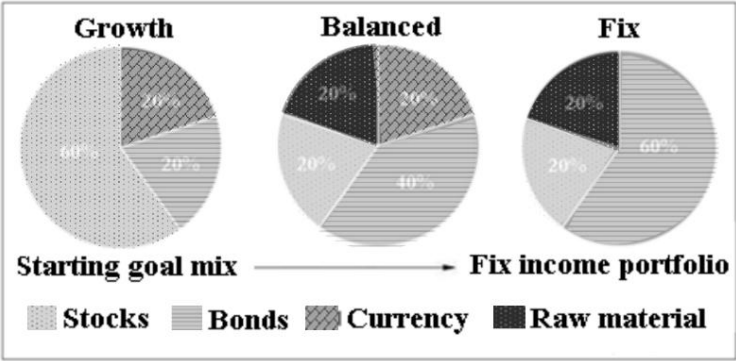


Figure 2. The portfolio lifecycle model

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.

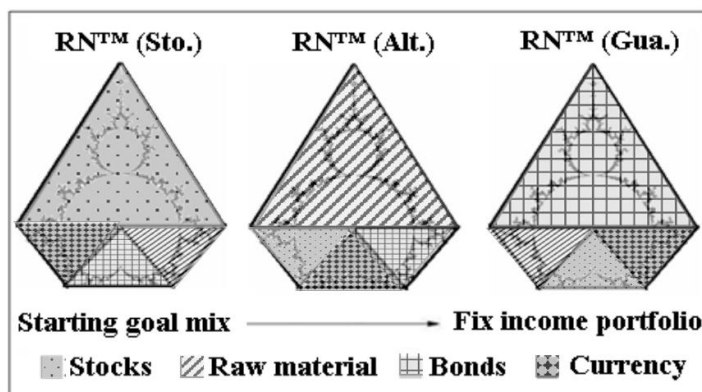


Figure 3. The Rolling Nuts Method

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™) method, where the lifecycle is substituted by different RN™ distributions (Stock, Alternative and Guaranteed), thus, three decision-making processes were created based on the M&M model (*Figure 4*).

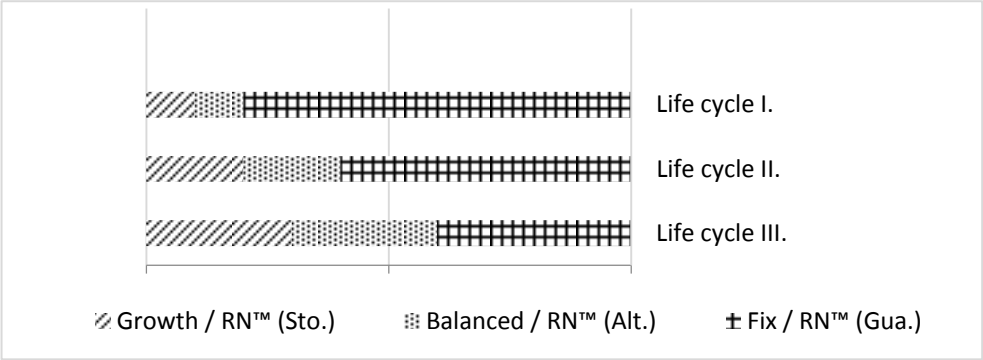


Figure 4. The lifecycle portfolios, in years

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.

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*).

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).

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
PP	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 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 then 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, then 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.

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. 5, significant differences may be detected in the yields (returns) of assets.

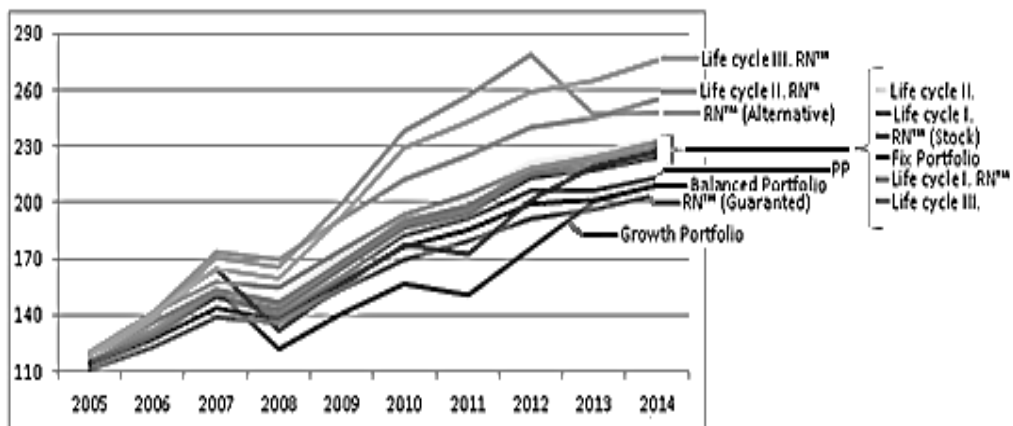


Figure 5. 10 years asset growth of analysed portfolios, in %

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 RNTM 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.

The amount of assets available is not negligible either during the term. If the investor decides to realize his or her profit and not invest it again, then it does not matter how much new money he can make. The Fig. 5 clearly shows that the three best portfolios were in the third year (2007) close to 170% in wealth, and this result – despite the crisis – continued to be well and exceeded. This proves that the investor continuously had more money in the investment period than in the other distributions. These three best portfolios had their payback point already in the 5th year (2009), while other portfolios had to wait for another 2–3 years. We can see that it is not witchcraft to gain pure profit from capital markets from the 6th year, even with passive investments, and this works with or without rearrangement. Considering merely diversification as a decision, the Rolling Nuts distribution seems to be optimal. We would like to improve this and correct it, so we can assign rearrangements (lifecycle planning) as a further choice for the model. The study has shown that – in long-term view – rearranged portfolios produce better results for non-transformed distributions.

The question of return on investment requires a shorter term thinking. If one is interested only in when his investment will return, it will determine his decision. The Figure 6 shows the profitability of the analysed portfolios, not forgetting that all portfolios were affected by the 2008 crisis year. In all cases it talks about profitable investment decisions within 10 years, but the spectrum spread from 5,02 to 9,47 years.

It matters a lot if you get all your assets back at the beginning of your 5th year ergo you start to earn money, or you have to spend several more years till your investment will generate profit. Earlier profit can be invested earlier, or of course – as a decision – it can also be used for other purposes.

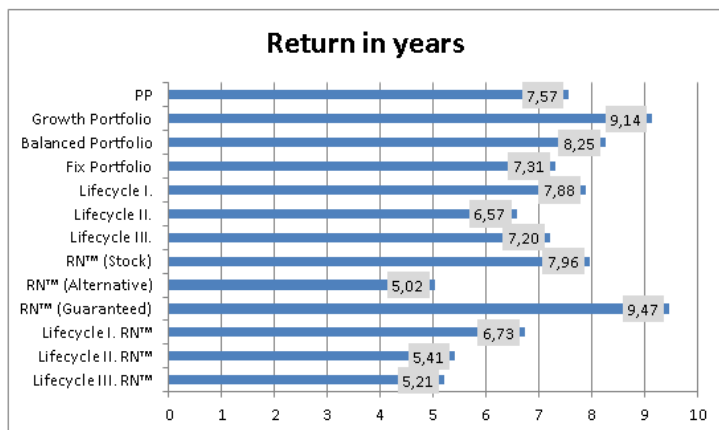


Figure 6. Profitability (return) of analysed portfolios, in years

Source: own editing

In all cases, the same investment types and the same life-cycle decision-making processes were used in the analysis, in order to obtain relevant results. 13 portfolios were analysed, with the best return on investment – 5,02 years – the *RN™ (Alternative)* portfolio. Interesting observation that here we are dealing with a non-restructured portfolio, but right after the leader 5 lifecycle portfolios follow which are already making profit. At the bottom of the rankings are the non-restructured distributions again, proving once again that restructuring as a decision-making process generates better profitability than pure (rational) diversification. Our exception, the recorder *RN™ (Alt.)* portfolio proves, that there can also be such distribution that can be profitable even within 5 years. According to the chaos theory, the initial conditions determine the later development space (bounded rationality), but if they are well – optimally chosen – they can be the best decision.

The research has made it clear that betting on diversification is a successful strategy, but in long-term restructuring should be incorporated into the system as a further, refined optimization method, in order to be able to make portfolio management strategic decisions. The study also demonstrated that the optimal distribution alone – as a diversification factor without trading policy – has such core potential that it should be taken into consideration in the decision-making processes. The strength of the diversification lies in the interrelated ratios of the investment objects, which in the case of Permanent Portfolio is in the ratio of 1:1:1:1, in the case of the Balanced Portfolio is 1:1:1:2 and in the Rolling Nuts method is 1:1:1:4. From these investigated distributions, the M&M model based method has proven to be the best. Not only because its total return is higher, but also because it has better

profitability than the analysed methods. Return on investment is always a cardinal issue, but in our research we have learned that even world-wide institutional investors could be proud of the returns that we have demonstrated – just – by using the natural distribution (entropy).

Conclusions

Diversification is a security measure, as we have known for decades, yet the biggest investors in our world are still hard hit by economic crises. My model is based on the distribution of nature, because nature also reflects the risks and the opportunities at the same time and thus forms their components. The Rolling Nuts method presented in the study is based on the limited rationality of human trade and provides a system-theoretical optimization method as a solution for portfolio management decisions. To capitalize on this interdisciplinary approach in the area of portfolio management, the M&M model was formed and has now been tested even in the years of crisis. The results show that the 1:1:1:4 distribution – entropy of nature – provides better yields in long-term than other famous or often recommended conditions. It has been confirmed that apart from whether a portfolio is diversified, it may still be focused (dominance). The focus of the M&M model can also be used for strategic decision-making, namely the form of the distribution allows the adjustment of the portfolio, depending on preferences or environmental changes. In strategic management, you can use the model-based optimization method of Rolling Nuts to plan the lifecycle of portfolios. However, restructuring does not always yield better results than pure distribution, this study confirms that such a natural distribution exists, that can produce better profitability and higher asset growth without touch. The heuristic RNTM method – as a rational decision – aims to serve an investor, which as an interdisciplinary approach combines the chaos theory with organizational development and with the help of general system theory provides a playing field (action space) where one can make further strategic decisions.

It is important to emphasize that research into entropy in portfolio management is not carried out on a perfect capital market but an analysis carried out directly during the period of global economic crisis and falling interest rates. Of course, strategic decisions can not always be made optimally, and a simultaneously crisis-proof and profitable optimization method should at least serve the Rolling Nuts method based on self-developed model for strategic investment decisions. Lifecycle planning and adjustment of the model are already such bifurcations – amplification mechanisms, feedbacks – which open up even wider range of decisions before an investor. The recent Nobel laureate economist, Thaler has indicated that the sooner an investor reviews his portfolio, the more his expectations will increase. This short term thinking will be avoided if we try to optimize decision processes through heuristics as stated in the study, which will be a strategic and behaviour-oriented behaviour at the same time.

Investments continue to be governed by the rule of profitability, which is the aspect that is most appealing to all investors. If the profitability meets with risk exclusion, one can probably talk about crisis-proof strategies. Of course, all strategies are

individual and inimitable, asset classes used in this study should not be taken as an offer. According to the chaos theory, all systems are sensitive to initial conditions, so when designing a portfolio you should always rely on the individual case to case basis. The M&M model is intended to provide aid for investment decisions, even in crisis years and also in everyday investments. Caring for one's self is no longer a possibility, but the more an expectation at institutional as well as at private level. To do this, our research wants to admit a part, proving that the distribution is such a force that you can use it 'optimally'. This study marks a milestone in entropy research, with other research tasks including practical model testing, benchmarking the real and other benchmark portfolios, developing portfolio lifecycles, and detected the entropy of a portfolio. In final conclusion, the M&M model presented in the study is therefore an optimization method for decision-making processes, as it saves the relentless decision-making and at the same time paves the way for further rational or irrational decisions in the field of strategic portfolio management to make it profitable and to expand ever growing, sustainable – optimal – portfolio. The deductible and self-development of system nature can be compiled into the language portfolio management as self-care, on which the man of the future has a great need in the rapidly growing earth population and vulnerable pension system.

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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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 environmental dimension as one of the contemporary strategic tools in evaluating firms' performance, and explores the application of environmental dimension and its impact on competitive advantage and financial performance in industrial firms. This research is a review based on analysis of previous studies. The most important findings indicate that there is a positive relationship between environmental protection, and competitive advantage and financial performance. 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; and Firms that develop innovative and effective solutions to new requirements related environmental protection have greater advantages pertaining to competitiveness and financial performance.

Key words: 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.

Background

Carroll and Turpin (2002) specified that due to increased environmental pollution and then the magnitude of environmental commitments, which constitute a significant portion of the total commitments of the facilities, and the increasing lawsuits won by the owners against a lot of facilities that its operations cause damage to the environment, in addition to the persistence of environmental awareness among members of the community, it seems that interested community and stakeholders oversee the facility's financial and non-financial performance , so that they can assess the environmental responsibility of the facility in an objective manner, which in turn affects the decisions of investors. Also, the demand by the managements for this information is increased in order to reveal the extent of the entity's ability to achieve the objectives of the strategy which are to provide a high quality product at a reasonable price and without harming the environment - the production of environmentally friendly products (Andersen, 2007).

So, researchers believe that another dimension should be added which is the environmental dimension, whereas this dimension answer the following question: how does the environmental community evaluate us? The importance of this dimension is the need for establishing the facility's responsibility towards the environment in which it operates. Perhaps, while producing products, facility generates some lost and harmful compounds to the environment, On the other hand it may be that the product itself has some harmful side effects to consumers, so the established behavior of firms will be influenced by the environmental sensitivity of those who live near the facility, or buy its products (Carroll & Turpin, 2002).

Recognizing the importance of the environmental dimension, needs the formation of environmental management systems, and to consider costs associated with environmental protection on budget, but many firms still unaware to the sustainability of enterprises as being in charge, in addition to a lack of tools established to manage and control efforts for environmental sustainability (Alsoboa & Aldehayyat, 2013; Roman et al , 2006).

The assessment of environmental performance is defined as a method to facilitate decision making by managements about the environmental performance by choosing specific indicators, data collection and analysis, evaluation of information in accordance with the standards of environmental performance, reporting, information

delivery and periodic inspection, and ultimately the development of this method or approach (Carroll & Turpin, 2002).

The importance of assessing the enterprise performance, from the environmental perspective based on the ground, that it has become a requirement under the laws to reduce costs, whether it is relevant to its activity or as a result of its environmental responsibility, and this is done by setting goals that lowers the cost of damaging the environment and prevent pollution in order to win customer satisfaction and to establish a good reputation in the community (Glasson, Therivel, & Chadwick, 2005; Bose, 2006).

The importance of the environmental dimension is to reduce the use of raw material, reduce the use of toxic substances, reduce the use of the energy needed for the production process, reduce waste and emissions and increase the chances of re-refining and recycling (Glasson et al., 2005, Savag & Jasch, 2005).

Based on the concept of environmental dimension, it would be better to incline to the concept of Environmental accounting which identifies resource use, measures and communicates costs of a firm's or economic impact on the environment. Expenditures – include operating and capital costs - to clean up or remediate polluted sites, environmental penalties and taxes, purchase of pollution prevention technologies and waste management costs (Owen, 2008; Schaltegger & Buritt, 2017).

This paper suggests that environmental performance should become a key element in the strategy established to achieve a balanced performance. A need to add an environmental dimension to the balanced performance measurement method. Therefore, it is necessary to stretch the concept of performance evaluation to consider the environmental performance as well. Consequently, in order to boast the firm's performance, an integration of environmental, economic and operational performance becomes a necessity.

Literature review

A number of empirical studies have investigated the relationship between environmental performance and different measures of economic and financial performance. 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, Martinez-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. Moreover, environmental factors were revealed as an excellent strategy to obtain competitive advantages in costs and in product differentiation. Thus, this study agrees with the researchers who affirm that environmental strategies positively affect firm's competitiveness while reducing environmental impact.

Furthermore, study was conducted by 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. 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. Such flexibility is not inherent in regulations focused on byproducts. Together, these factors are leading to greater variability in investment within industries, as well as greater advantages to firms that develop innovative and effective solutions to new requirements. 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. In addition, this study clarified a relevant point in the literature, namely that the effect of environmental protection on firm performance is not direct and can vary depending on the sector considered.

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. A survey of relevant industries was undertaken to identify specific companies from which comparisons of financial performance could be made. 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. Study analyzed whether complementary assets are required to gain cost advantage from implementing best practices. Results based on survey data from 88

chemical companies indicate 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. There are several implications from the acceptance of this theoretical model for organizations and accountants. First, at the general level, given the severity of the environmental problems which face us, it would seem prudent for managers and accountants to take immediate action to address these threats. Second, the traditional accounting paradigm with its narrow focus on accounting numbers does not capture the environmental consequences of organizational activity. Third, as part of innovation and experimentation there is a continued need to explore potential alternative monetary and non-monetary valuation systems.

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 İçerli, 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) councluded 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. Thus, sufficient information can be presented to the public about the events that may emerge from the non-financial environmental risks which may affect the business and its future as well as financial position of business. So that the public will be able to have enough knowledge about measurement and evaluation of current and future risks of the business.

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. The managers of the capital, as well as other parties concerned, to which the economic entity has a certain social responsibility, use accounting to obtain information on the consequences of the economic growth on opportunities and environmental costs. In the current practice, only a little part of the externalities has been internalized, either voluntarily, or by the coercion of some direct or indirect rules. Without such information related to the structure of the impact of the economic activities, the decisional system of the economic entity may not support coherent

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. 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.

Summery

Based on reviewing the previous literatures, it was concluded 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 committed with environmental issues doesn't have negative reflection on its financial performance, because it would increase the competitive advantage and market share.

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EVALUATING THE SOCIOECONOMIC IMPACTS OF POLISH CASINO EXPANSION USING DOUBLE-FUZZY REGRESSION DISCONTINUITY

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Abstract: This paper examines the socioeconomic impacts of the casino expansion in Poland that resulted from the passage of the 2009 Polish Gaming Law. The peculiarities of the law allow for a regression discontinuity approach to identify the causal link between casinos and socioeconomic outcomes. In particular, the gaming law allows one casino per town, plus one for each 250,000 residents, and one casino for each 650,000 residents per powiat. These create discontinuities that can be treated as exogenous variation in the supply of gambling casinos and allow for causal identification of socioeconomic impacts. Both of these discontinuities are “fuzzy” in the sense that observations that pass the population threshold do not receive the treatment variable (a casino) for certain. This paper uses a two-stage approach to identify the causal impact of casinos on economic variables. Regression discontinuity, panel regression and matching results all show that casinos have had a positive impact on local wages, but have not had an impact on other socioeconomic variables, including unemployment, housing starts, and new business formation.

Key words: 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 provides 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.

Material and methods

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.

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.

Data and Descriptive Statistics

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.

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

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.

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.

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

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

Three econometric strategies are employed in this paper. 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 on the number of casinos allowable under the law. The final approach uses a fuzzy regression discontinuity approach that takes advantage of the two population thresholds used to determine the eligibility of a town to open a casino.

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 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.

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.

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, Wrocław, Szczecin and Lublin. Białystok was included as a match for Katowice despite being eligible for the same number of casinos based on powiat population. Białystok is constrained at the voivodeship level and has only one casino despite being eligible for two based on its own population. If Białystok is excluded, there is no suitable match for Katowice. A similar situation holds for powiat poznański, 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. This effect is not just statistically significant but also economically large. In fact the magnitude of the effect is much larger than effects found in other studies, albeit of studies of casinos in the United States and not Europe (e.g., Wenz 2014, Williams et. al., 2011). This suggests a need for robustness checks.

The final econometric approach takes full advantage of the population thresholds in the gaming law using a regression discontinuity approach. Regression discontinuity begins with the assumption that observations on either side of a threshold are similar and drawn from a continuous distribution, and that focusing on observations around the threshold to measure the effects of treatment (in this case, opening a casino) allows for causal inference (Imbens and Lemieux 2007). An additional assumption is that the functional form around the threshold is stable in the population not receiving the treatment.

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.

Regression discontinuities may be sharp, where each observation below the threshold does not receive the treatment, and each observation above the threshold does not, or they may be fuzzy, where reaching the threshold affects the probability of receiving the treatment, but some observations below may receive the treatment, and some observations above may not. The case of Polish gaming is a fuzzy discontinuity, where some towns have not opened the maximum number of allowable casinos based on their town population, likely because they are constrained by the maximum number of casinos in the Powiat. In the case of a fuzzy regression discontinuity, a two-stage approach is suggested (Imbens and Lemieux 2007), where in the first stage, the source of the discontinuity is used as an instrument to account for the probability of selection into the treatment group.

The selection equation is given by

$$T_i = \alpha + \theta * \text{PowiatMax}_i + \gamma * \text{VoivodeshipShare}_i + \beta * \text{population}_i + \varepsilon_i \quad (3)$$

where T represents the probability of treatment in town i , PowiatMax is the maximum number of casino licenses possible based on the town population and VoivodeshipShare is the town's fraction of potential casinos, scaled by the maximum number of casinos in the voivodeship. In other words, each town has some potential number of casinos based on their own population and is given an entry for each potential casino in the drawing of actual casinos from the maximum allowable number in the voivodeship. Based on this regression, PowiatMax and population are significant predictors of casino locations, suggesting that there is instrumental validity in using these measures to predict casino locations.

The second stage regression involves replacing the actual treatment effect with fitted values of T calculated in the first stage. The results shown here are for the dependent variable of salary, as this was the only variable to appear with any casino impact in other specifications. The results for new dwellings, new business entities and unemployment did not generate statistically significant results with a regression discontinuity design and are suppressed. The second-stage regression equation is given by:

$$Y_0 = \alpha + \beta_1 \hat{T}_0 + \beta_2 * \text{population} + \varepsilon_i \quad (4)$$

where Y represents monthly salary, \hat{T} represents the first-stage fitted value for the probability of a casino in the powiat, and population is included as a regressor to capture the trend in salary around the discontinuity thresholds.

Results from the regression discontinuity model are presented in Table 5. Again, casinos have a statistically significant and positive effect on local wages, though this time the effect is much smaller. A casino opening is associated with a 45 zloty increase in monthly earnings in the powiat where the casino opens. This is a much more modest result than in the panel and matching specifications and is of a more plausible size than the alternative approaches.

Table 5. Regression Discontinuity Effects

Second-Stage Regression	
Dependent Variable:	Coefficient
Casino-hat (Treatment)	45.31 ** (26.07)
Population	0.099 (.054)
Intercept	495.06 *** (8.37)

*, **, ***: p-values > .9, .95, .99 respectively. Standard errors in parentheses.

Conclusions 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, matching methods and a regression discontinuity approach provide some evidence that casinos provided a boost to local wages in areas with casinos and areas that added gambling during the sample period. The regression discontinuity approach suggests that the increase in wages is caused by the opening of a casino, rather than simply correlated. 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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FACTORS INFLUANCING CRUDE OIL PRICE CHANGES

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Abstract: Energy is the prime mover of economic growth and 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. 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 demand and supply of oil in some OPEC and non-OPEC countries. In the end, we concluded that 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.

Key words: 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.

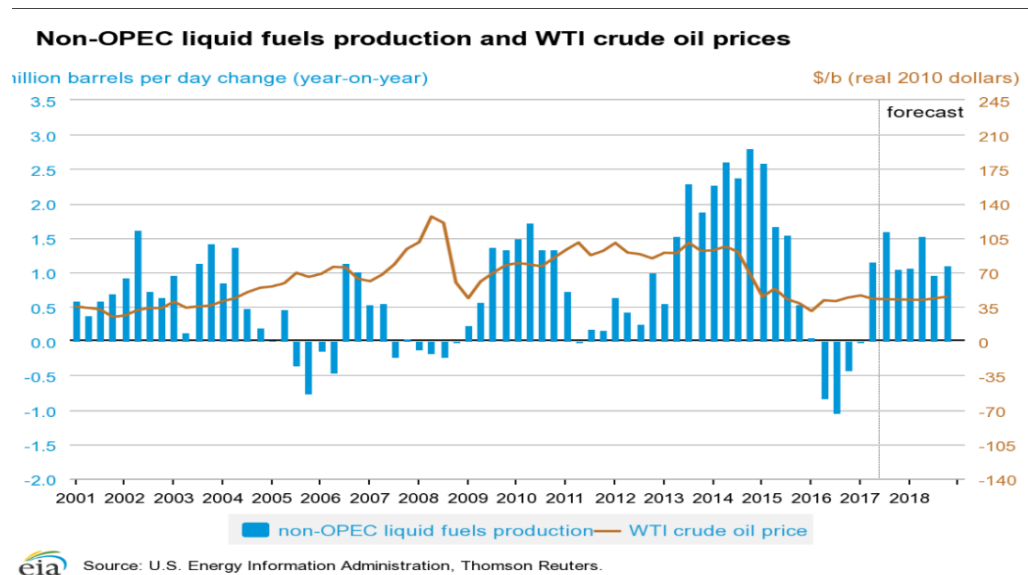


Figure 1 Changes in non-OPEC production can affect oil prices

Source: EIA, 2017

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.

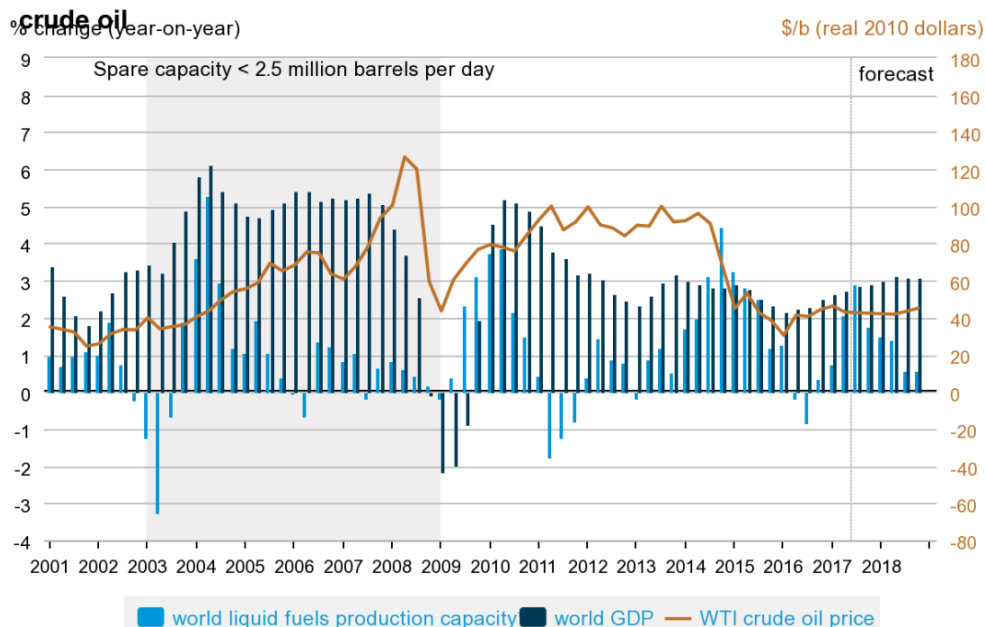
As it was mentioned earlier producers in non-OPEC countries are generally regarded as price takers, that is, they respond to market prices rather than attempt to influence prices by managing production. As a result, non-OPEC producers tend to produce at or near full capacity and so have little spare 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.

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.

Changes in world liquid fuels production capacity and GDP, price of WTI



*World capacity = OPEC capacity plus non-OPEC production



Source: U.S. Energy Information Administration, Thomson Reuters

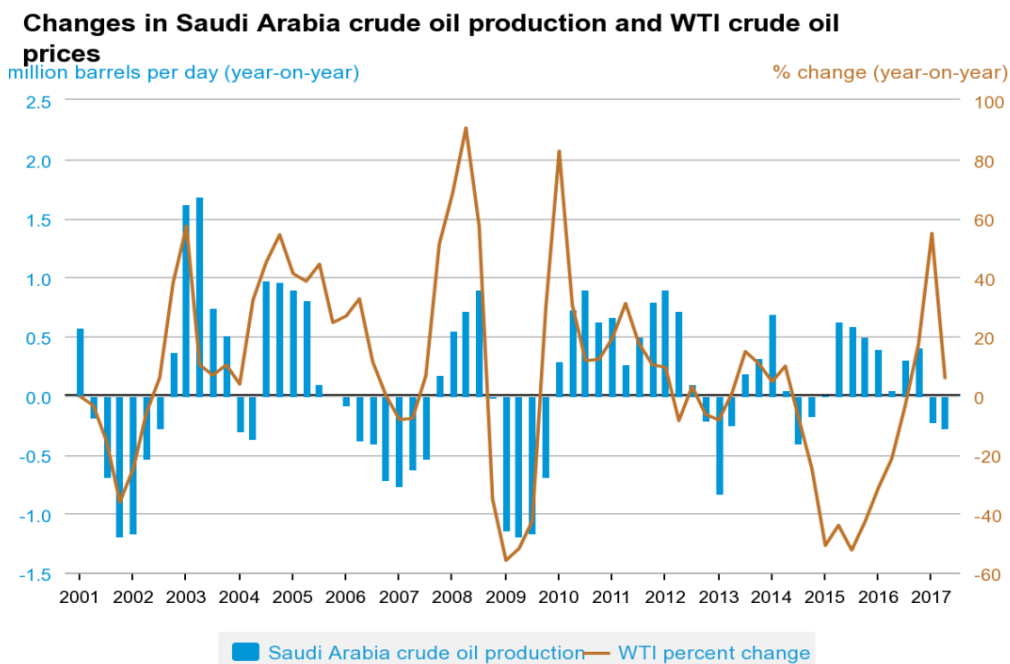
Figure 2. The years 2003-2008 experienced periods of very strong economic and oil demand growth, slow supply growth and tight spare capacity

Source: EIA, 2017

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.



eia Source: U.S. Energy Information Administration, Thomson Reuters

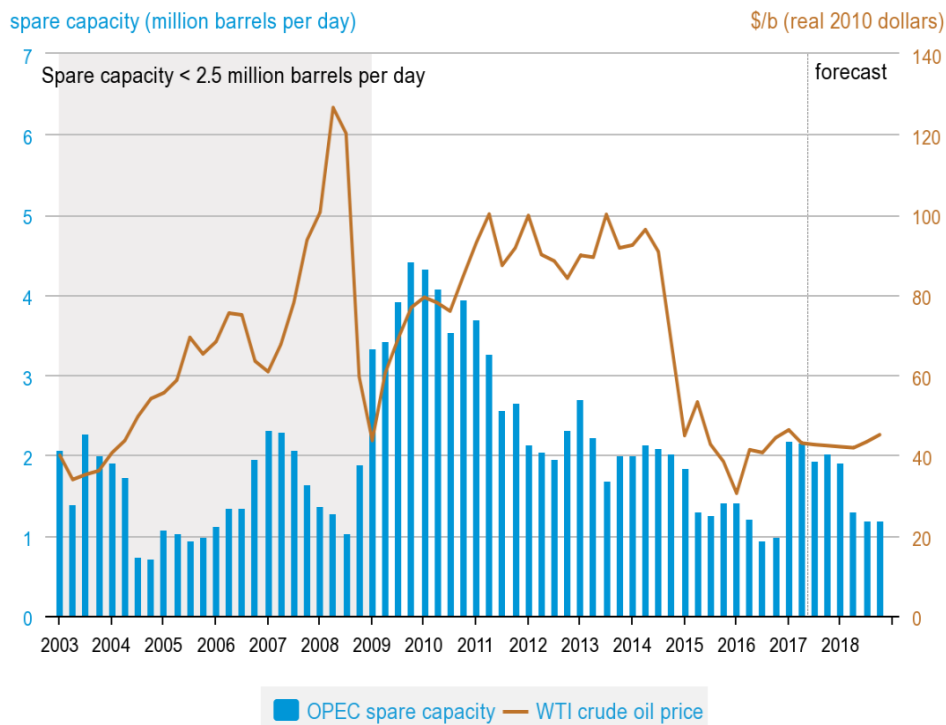
Figure 3 Changes in Saudi Arabia crude oil production can affect oil prices

Source: EIA

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.

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



eia Source: U.S. Energy Information Administration, Thomson Reuters

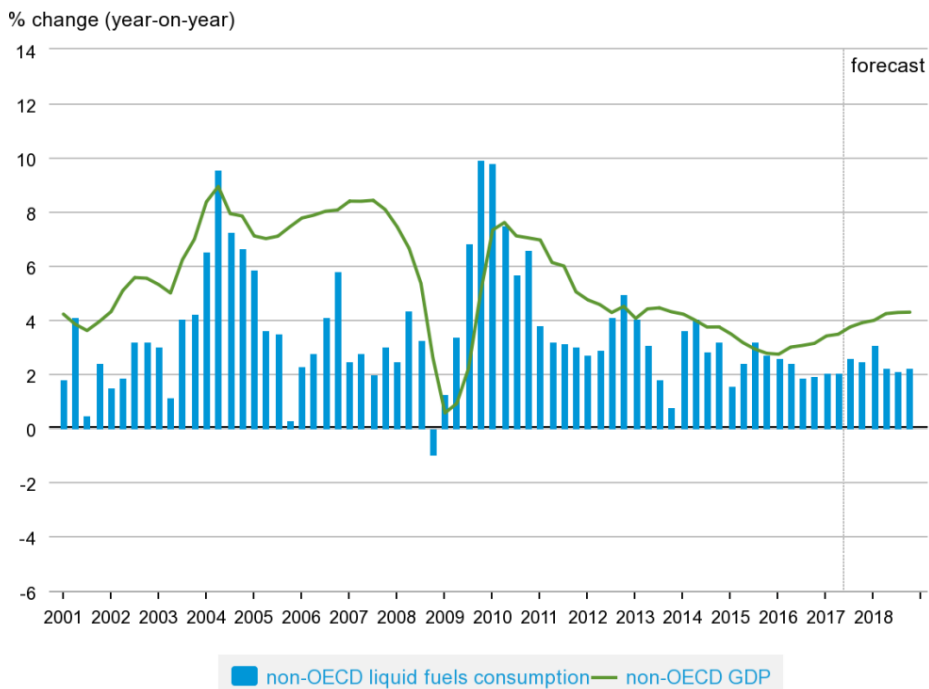
Figure 4. OPEC's spare production levels (2003-2018)

Source: EIA

Non-OECD demand

Oil consumption in non-OECD developing countries has grown dramatically in recent years. The oil consumption within the OECD countries declined between 2000 and 2010, while non-OECD oil consumption increased more than 40 percent. China, India, and Saudi Arabia presented the biggest growth in oil consumption among the non-OECD countries. Figure 5 presents a strong relationship between GDP growth rates and growth in oil consumption in non-OECD countries. Since 2001 non-OECD consumption went down only in the fourth quarter of 2008 and the first quarter of 2009. Increased demand pressure overtook any downward pressure on oil consumption as a consequence of higher prices.

Non-OECD liquid fuels consumption and GDP



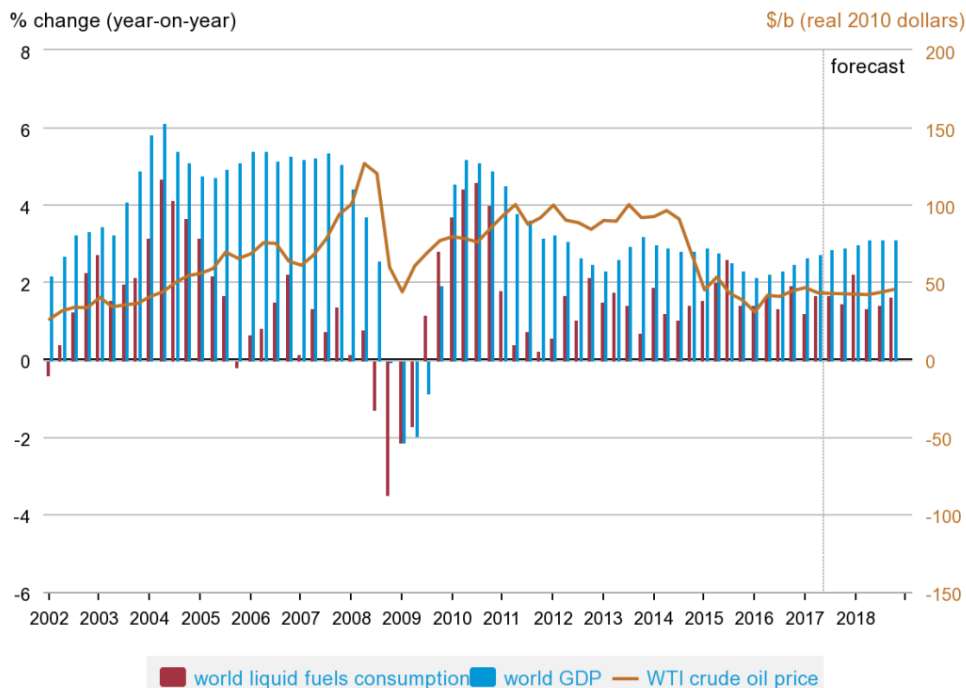
Source: U.S. Energy Information Administration, IHS Global Insight.

Figure 5. Economic growth and oil consumption

Source: EIA

Rising oil consumption results in rapid economic growth that can influence global oil demand and oil prices to a great extent. Transportation, in particular, requires large amounts of oil and related to economic conditions. Oil is also consumed as fuel or feedstock, and in some non-OECD countries, it is used for power generation. Consequently, oil prices tend to rise when economic activity and oil demand is growing strongly. The rapid population growth in non-OECD countries is an additional factor that supports oil consumption growth. Figure 6 illustrates WTI price levels with changes in world GDP growth rates (it indicates underlying oil demand growth) and world oil consumption. Rising oil prices prevented global oil consumption from growth between 2005 and 2008 despite the strong economic growth.

World liquid fuels consumption, world GDP, and WTI crude oil prices



Source: U.S. Energy Information Administration, Thomson Reuters.

Figure 6. Rising oil prices held down global oil consumption growth from 2005-2008 despite high economic growth

Source: EIA

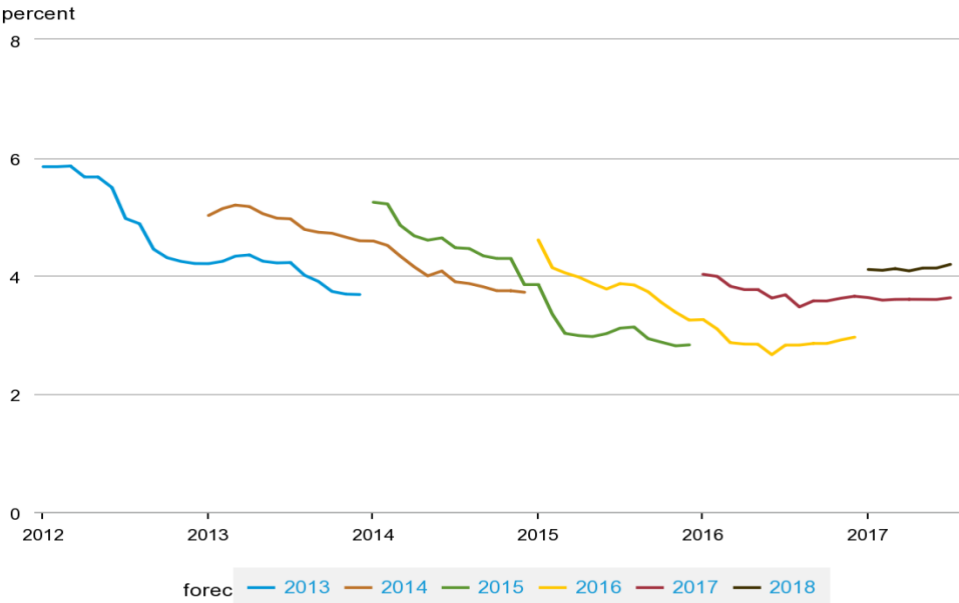
Structural conditions also influence oil prices and economic growth. Developing countries tend to have stronger manufacturing industries, which are more energy intensive than service industries. Although transportation oil use is usually a smaller share of the total in non-OECD countries, this increases rapidly as expanding economies have an increased need to move goods and people. Vehicle ownership per capita is also highly resulting from rising incomes. China's strong economic growth made it become the largest energy consumer and the second largest oil consumer in the world. According to EIA all the net increase in oil consumption in the next 25 years will derive from non-OECD countries.

In addition to economic activity, energy policies also affect oil use. Many developing countries, for example, control end-use prices, which prevents consumers from responding to price changes. This reduced demand response makes economic growth as a key driver of non-OECD demand more important.

While current oil consumption is primarily related to current economic activity, changes in the projections for future economic conditions can also affect oil prices.

An improved economic outlook would increase the chance of oil markets’ tightening in the future, which would incur higher future oil prices. This rise in futures prices increases the volume of inventories, which decreases available current supply and raises prices. Figure 7 shows how projections of economic growth in the non-OECD countries changed. Estimates for 2008 fell as the year progressed (with oil prices) while growth estimates for 2009 increased throughout the whole year (as did oil prices).

GDP growth in non-OECD countries (annual expectations)



 Source: U.S. Energy Information Administration, Short Term Energy Outlook.

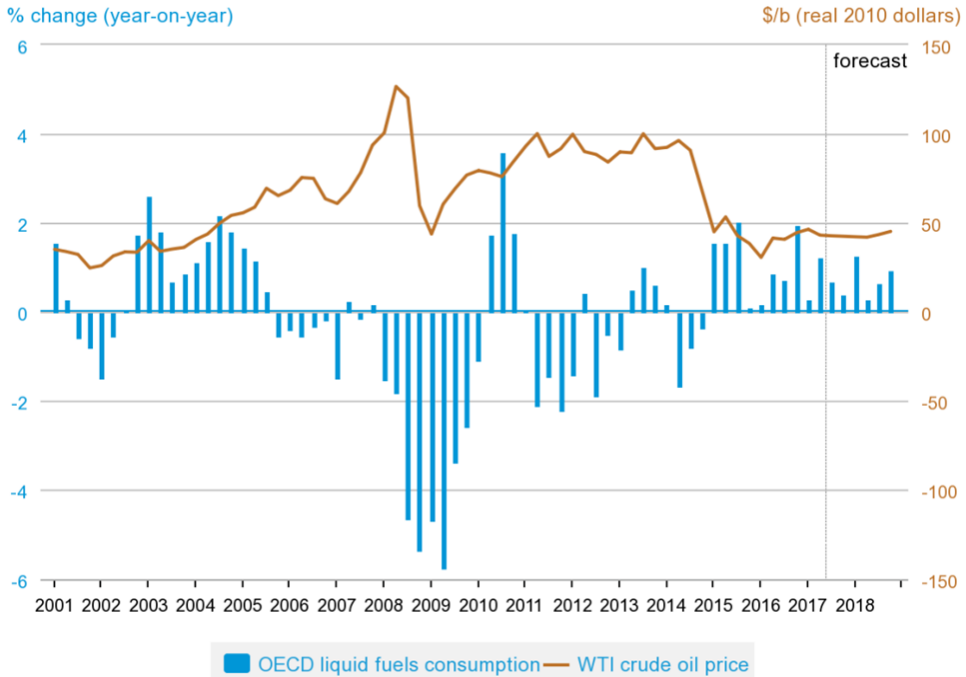
Figure 7. Changes in expectations of economic growth can affect oil prices

Source: EIA

OECD Demand

The Organization of Economic Cooperation and Development (OECD) held 53 percent of world oil consumption in 2010. Oil consumption in the OECD fell between 2000 and 2010 whereas non-OECD consumption went up 40 percent during the same period (Figure 8). The impact of prices on OECD consumption has been more evident than for non-OECD countries due to the slower economic growth.

OECD liquid fuels consumption and WTI crude oil price



Source: U.S. Energy Information Administration, Thomson Reuters.

Figure 8. In OECD countries, price increases have coincided with lower consumption

Source: EIA

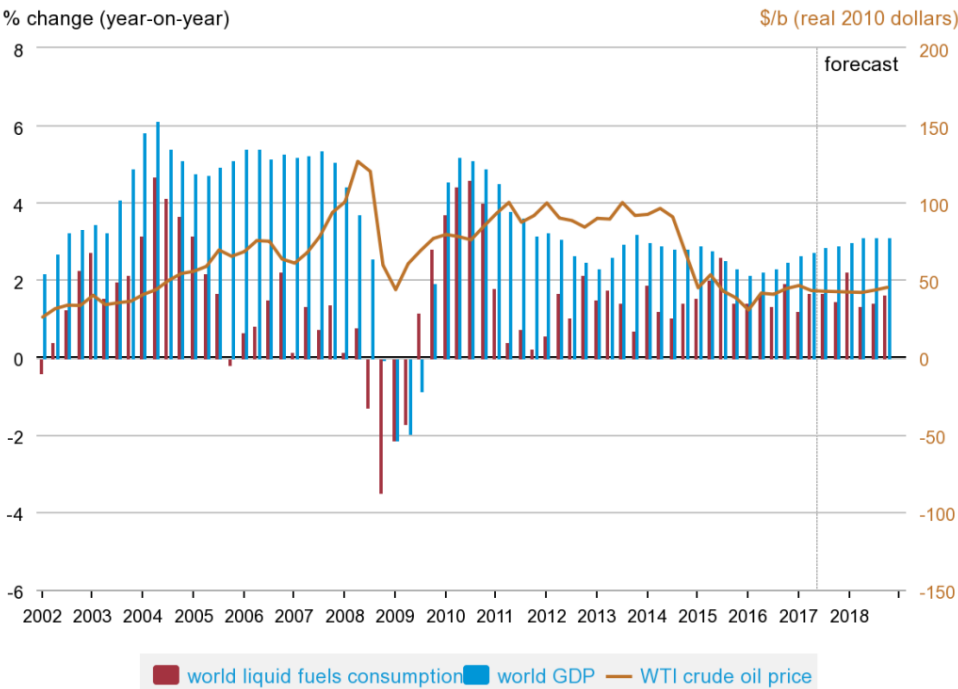
Structural conditions affect oil prices, economic growth and oil consumption. Developed countries normally have higher vehicle ownership per capita so oil use within the OECD transportation sector has a larger share of total oil consumption than in non-OECD countries. Economic conditions and policies on transportation have a significant impact on the total oil consumption of OECD countries which have higher fuel taxes and policies to improve new vehicles and encourage the use of biofuels. Furthermore, the economies in OECD countries have larger service sectors than manufacturing. As a result, the economic growth in these countries might not have the same effect on oil consumption as it would in non-OECD countries.

OECD countries have fewer subsidies on end-use prices so changes in prices are reflected in the prices faced by consumers. But, it is also a question of time for people to adjust their transportation and for the vehicles become more energy-efficient in response to price changes.

Changes in expected future oil prices can also have an effect on consumers' decisions on the modes of transportation and vehicle purchases. If prices are to be high

or increase in the future, more consumers may decide to purchase more fuel efficient vehicles or, alternatively, use public transportation.

World liquid fuels consumption, world GDP, and WTI crude oil prices



Source: U.S. Energy Information Administration, Thomson Reuters.

Figure 9. Rising oil prices held down global oil consumption growth from 2005-2008 despite high economic growth

Source: EIA

In Figure 9 WTI price levels are illustrated with changes in world GDP growth rates (as it indicates the underlying oil demand growth) and world oil consumption. Rising oil prices kept global oil consumption growth low from 2005 to 2008, despite the strong economic growth.

Summary

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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THE BACKGROUNDS OF 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 managing people's lives to a great extent. By using the method of document analysis, we first give a historical overview on the formation of oil prices with some suggested reasons for changes. Then, the most important crises are presented with some illustrations. In the end, we 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.

Key words: 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.

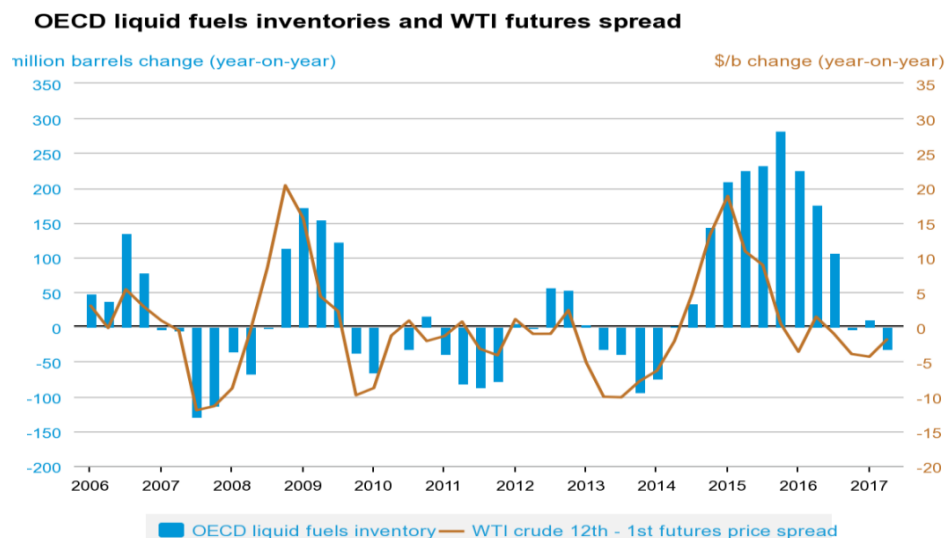
Efficient, reliable and competitively priced energy supplies are prerequisites for accelerating economic growth. For any country, the strategy to obtain and meet the energy requirements and energy developments are the integral part of the overall economic strategy. Efficient use of resources and long-term 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

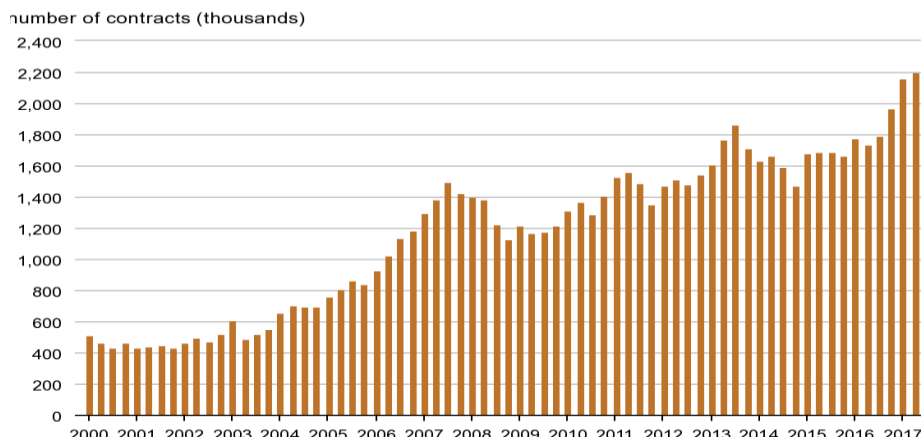
Market participants not only buy and sell physical quantities of oil, but also trade contracts for the future delivery of oil and other energy derivatives. One of the roles of futures markets is price discovery, and as such, these markets play a role in influencing oil prices.

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.

Average daily open interest in crude oil futures on U.S. exchanges



Source: NYMEX CME Group, Published by: U.S. Energy Information Administration

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.

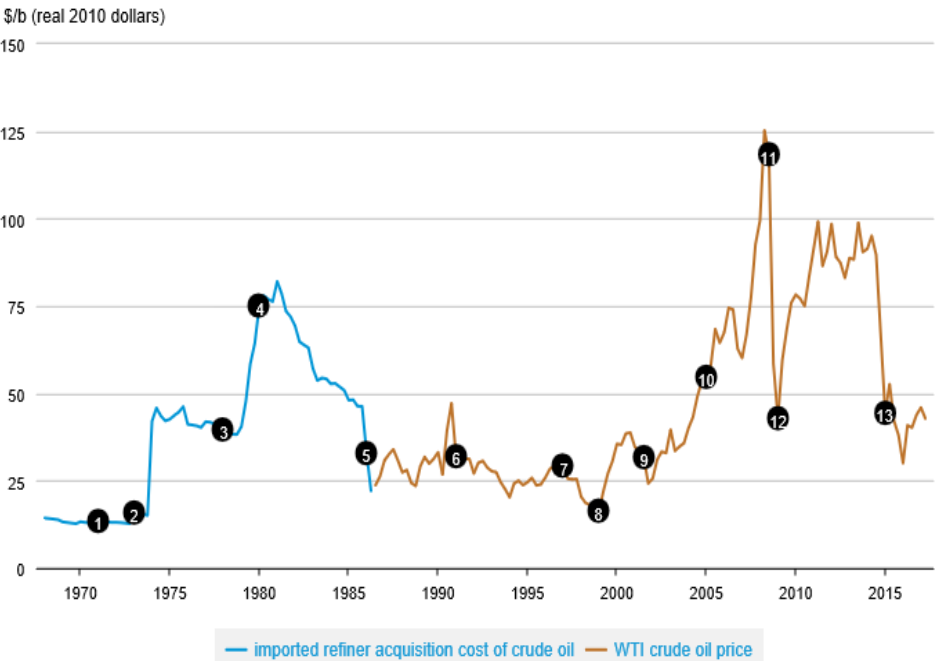
Much of the world's crude oil is located in regions that have been prone historically to political upheaval, or have had their oil production disrupted due to political events. Several major oil price shocks have occurred at the same time as supply disruptions triggered by political events, most notably 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

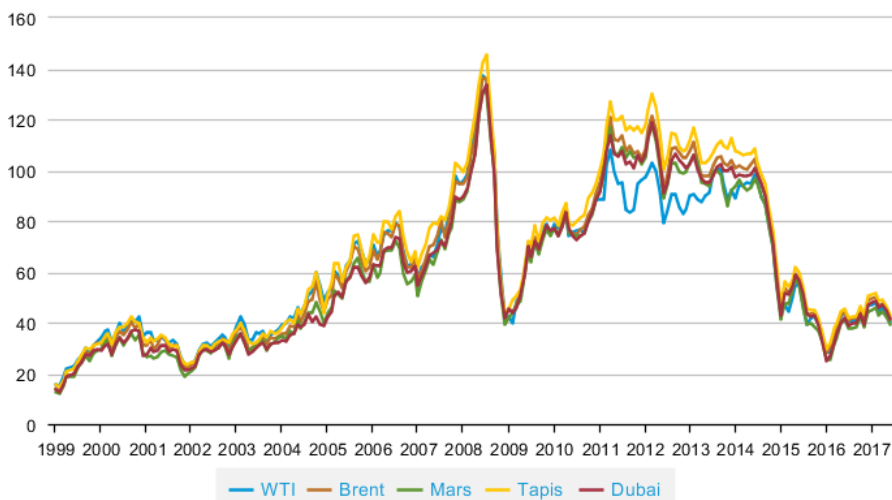
Source: EIA

Quality differentials

Crude oil is traded in the international market. Prices of many global crude oil streams move together although there are differences between light-weight, low-sulphur (light-sweet) groups and heavier, higher-sulphur (heavy-sour) crudes that are inferior in quality. Many types are produced around the world and quality and location varieties lead to price differentials but as oil markets are integrated globally, prices usually move together (Figure 4).

World crude oil prices

\$/b (real 2010 dollars, monthly average)



Sources: Bloomberg L.P., Thomson Reuters. Published by: U.S. Energy Information Administration.

Updated: Monthly | Last Updated: 08/30/2017

Figure 4. Certain crude oil prices

Source: EIA

Summary

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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ASPECTS CONCERNING THE ATTITUDE OF YOUNG PEOPLE FROM DIFFERENT EUROPEAN COUNTRIES AS CONSUMERS IN THE FIELD OF TOURISM

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Abstract: The purpose of the study was to set out whether there are similarities on the young persons' attitude to the field of tourism, while considering them in groups based on their origin countries, as consumers in the tourism area. The study has been carried out in five European countries, Albania, Macedonia, Poland, Romania and Slovakia, by using the questionnaire as method of investigation. The researches carried are based on the answers given by 391 persons with ages of between 18 and 34. There have been followed details regarding the attitude of young people when they choose a tourist destination (criteria for choosing the destination, information manner, other matters). The attitude displayed by young persons is gradually more often influenced by the globalization phenomenon and that can be seen in their behavior as consumers of tourism industry services. Thus, we found numerous similarities in their opinions, regardless of their origin country. However, when directly comparing the groups based on origin countries, we have also noticed some differences in connection to their intentions or criteria for choosing the destination or the type of tourism. This paper emphasizes the questions in the questionnaire and the existence or lack of some differences between the responses submitted by the young persons and their statistical significance.

Key words: attitude, decision, globalization, tourism statistics, young people

Introduction

The natural traits of the countries, be they historical, language-related, religious or gastronomic, render them different and recommends them as tourist destinations, making them known (Ciolac 2015, p. 316 -319, Petroman 2014, p. 325-329).

While traveling for tourism purposes in various European countries, in the present, one can notice several similarities on the types of tourist attractions, but more in connection to the participants' attitude related to everything that symbolizes tourism (aboutourism.wordpress.com, 2011, Sîrbu i in. 2016, p. 57-62, Toader i in. 2014, p. 140-143).

The present picture is very much different of that from the past, even when considering the years 1990-2000. The main factor substantiating that phenomenon is the globalization. It has become even more obvious while considering the expansion of the social networks, the political and socio-economic mentality, and the common policies in the field of tourism (Bramwell, Lane, 2000, Kirovska 2011, p. 69, Richards 2007).

The tourism demand and supply can vary significantly from one country to another in regards to certain aspects. On the other hand, some authors wrote that rural tourism and mainly its part agri – tourism is a unique example of penetration of agriculture and tourism (Palkechová, Kozáková 2015, p. 69-85).

The five European countries that are home to the respondents selected for the purpose of the present study are geographically located on a line that starts from Central Europe and continues to the South of Europe (instat.gov.al 2017, Kozáková, Palkechová 2015, p. 541-551, Ministerstwo Sportu i Turystyki 2008, State Statistical Office 2016, World Economic Forum 2017). Each of them has particular features, different traditions, and it is exactly these particularities that made us in the first stage of researches to think of the assumption that people from different countries might give different answers to the questions included in the questionnaire.

The purpose of this survey is to set out whether there are similarities on the young persons' attitude, while considering them in groups based on their origin countries, as consumers in the tourism area. The questionnaires have been applied to five European countries: Albania, Macedonia, Poland, Romania, and Slovakia. The respondents were between 18 and 34 years old.

Material and method

Presentation of the questionnaire

The questionnaires were applied online by Google Docs; the questions can be found online (Toader i in. 2017).

It has 17 questions involving on the one hand, general information, as well as determining factors when choosing the tourist destinations. Thus, section I has questions on the personal characterization, as well as their estimate budget allotted to holidays, and the participants' origin country (I.1 -...- I.7). Section II of the

questionnaire has 10 questions. They concern details on the type of tourist destinations the young persons prefer, the distances, duration and frequency of going on holidays, and their information sources. When considering their structure, the questions in this section have one correct answer (II.1, II.2, II.4, II.5, II.7), multiple answers (II.3), or they are open questions (II .10) or questions that use an assessment scale (II.6, II.8, II.9).

The survey period was February 22, 2016 – March 29, 2017.

After eliminating the outlier values, 377 valid responses were processed, out of 384 total responses. 81 persons came from Albania, 31 from Macedonia, 119 from Poland, 98 from Romania, and 48 from Slovakia.

Statistical method

Eliminating the outlier values relies on the Tukey quartile, above the $Q_3 + 3 \times (Q_3 - Q_1)$ value and below that value $Q_1 - 3 \times (Q_3 - Q_1)$. We surveyed the distribution normality by using the Kolmogorov-Smirnov and Shapiro-Wilk tests, and the group differences have been analyzed by using the Kruskal Wallis or Mann Withney test. The ranking correlation was assessed by the use of the Kendall coefficient. SPSS was the software used for the statistical survey and the graphic representation (IBM SPSS Statistics Base 24, 2016).

Results and discussions

The average age of the survey participants was 24.07 years old, and the median value 23 years old. Approximately 75% of the respondents were above 21 years old, but they did not have over 34 years old. The same, approximately 75% were below 27 years old, but they were at least 18 years old.

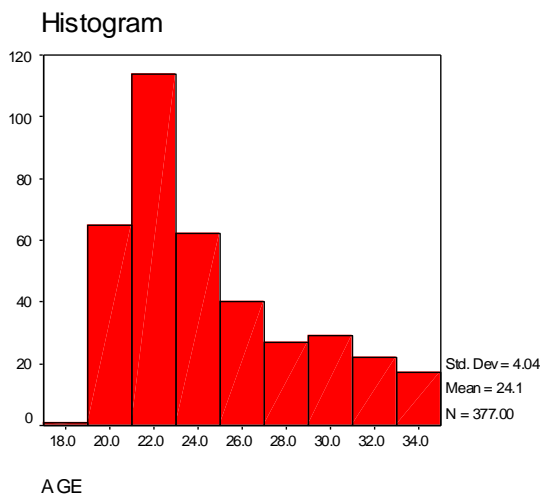


Figure 1. Histogram of survey respondents' age

Source: own editing

The average budget they allotted to the holidays during one year was approximately 590 Euro. Approximately 75% of the survey respondents annually allot a budget above 200 Euro for holidays, while only 25% allot over 780 Euro / year.

In the most common situations, the data do not observe the normal distribution and the causes are difficult to find. Most likely, they are due to the frequent tendency of using responses with extreme scores. Thus, for researching the existence of differences between groups, we have used the Kruskal Wallis non-parametric test.

When testing whether the tourist groups allot the same budget for the holidays of 2017, it was found that according to the Kruskal Wallis test, there are significant differences between groups, $\chi^2=59.2$ with $p<0.001$.

When testing the correlation between the age of respondents and the allotted budget, it was found that the value of the Kendall coefficient is 0.289, which was statistically indicated by the use of $p<0.001$. Thus, it can be seen a slim correlation, which indicates the fact that there is a slight increase tendency of the budget allotted by the age increase.

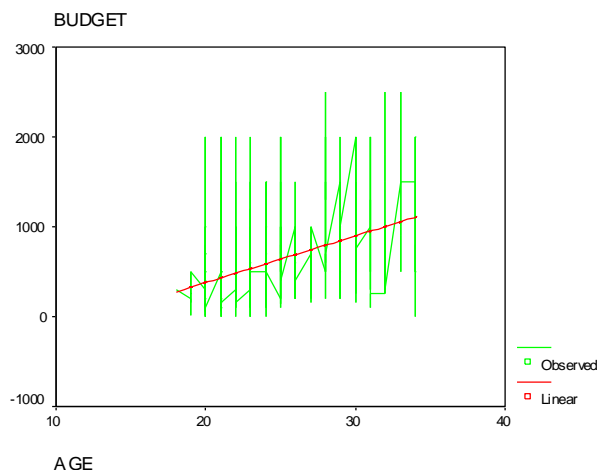


Figure 2. Tendency of changing the budget allotted to holidays by the increase of the tourists' age

Source: own editing

In the group remaining after the outlier values were eliminated, there were 137 men and 240 women. The average budget allotted to holidays by men was approximately 672 Euro/year, and that allotted by women was 544 Euro/year. When testing whether the budget allotted by women was similar to that allotted by men, by the use of the Mann Whitney test, we found that $U=14553$, with $p=0.06$, thus that the values did not vary significantly.

In items II.1 -.- II.5, the questions aimed at obtaining information on the frequency of holidays (II.1), their duration (II.2), type of destination (II.3), and type of destination by considering the expenses made, (II.4), as well as distance to the home (II.5). In all circumstances, except for II.2, responses varied significantly ($p_{II.1} = 0.006$,

$p_{II.3}<0.001$, $p_{II.4} = 0.036$, $p_{II.5}<0.001$). Thus, in connection to the frequency and type of destination, the persons questioned behaved differently based on their origin country.

When referring to question II.2, which requested the respondents to indicate the number of days spent on vacation, the answers were similar regardless of their origin country ($p = 0.09$). Most of the persons that answered the questionnaire spent 4 to 7 days on vacation (55% of them). 24.6% of the respondents spent 8-14 days on vacation, and 13.79% of them spent 1-3 days on vacation. Only 6.3% had holidays of 15-30 days.

Figure 1 presents the distribution of responses corresponding to questions II.1 -..-II. 5 (for question **II.1**, the responses were: once=1, twice=2, three (more)=3; for question **II.2**, the responses were 1-3 days=0, 4-7 days=1, 8-14 days=2, 15-30 days=3; for question **II.3**, the responses were given the next values: domestic=0, external=1; for question **II.4**, the values were: cheap=0, luxury=1, and for question **II.5**, the ranges were given by employing the next values: (0.50)=0, (51,100)=1, >100=2).

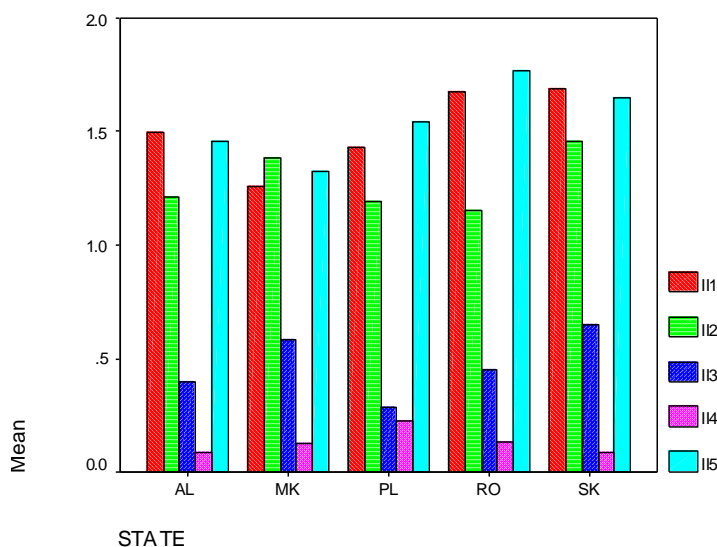


Figure 3. Distribution of mean of scores for II.1-..-II.5

Source: own editing

The set of questions from II.6.1 to 4 describes the importance of tourism categories in various contexts. We have analyzed the differences between the groups also by the use of the Kruskal Wallis test.

Question II.6.1 refers to the significance of choosing some cultural destinations, known due to their history or cultural heritage. Here we have noticed significant differences between groups ($p = 0.004$). Thus, the tourists in certain European countries have different opinions as against others, when discussing of choosing a tourist destination known for its history or culture.

QuestionII.6.2 refers to the importance of choosing a special tourist destination,

such as theme parks, resorts, or camps. Regardless of the origin countries, the tourists' responses were similar ($p = 0.963$).

In connection to question II.6.3, which indicates the importance of choosing cities or places recognized for the presence of house museums, art galleries, cathedrals, parks, museums, or theaters, important differences have been noticed between the groups ($p = 0.004$). Due to some similarities of this question to question II.6.1, those responses have been suspected of being similar from the very start. One could state that the tourists in various countries have a different opinion on choosing the tourist destination based on that particular place's cultural potential.

In connection to choosing the tourist destination based on the area's particulars, question II.6.4. was asked. It referred to the preferences for the coastal areas with sandy beaches, rocks or various seas with European tourist destinations. It determined similar responses ($p = 0.116$). Thus, regardless of the origin country, the respondents did not have different opinions.

The interests for the rural areas recognized due to their green spaces and clean air, is indicated by question II.6.5. In that item, no significant differences between the respondent groups were seen ($p = 0.759$).

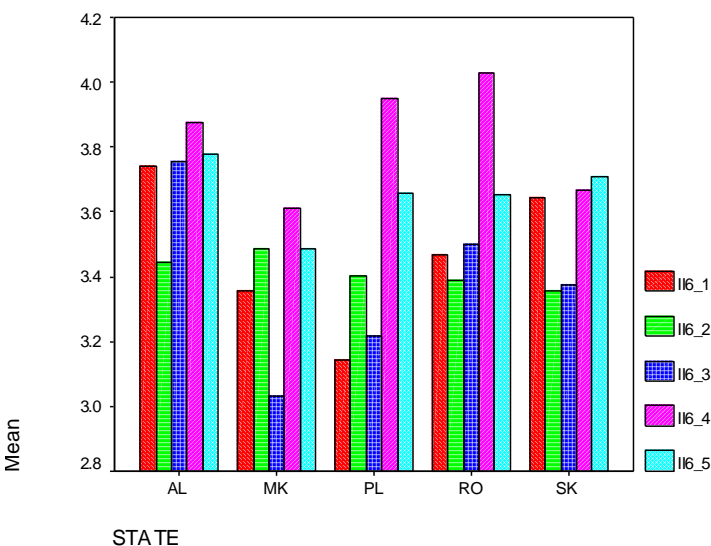


Figure 4. *Distribution of the mean values of responses given to II.6 questions*

Source: own editing

The II.8.1 -- 4 group of questions refers to the importance of the tourist information source. The Kruskal Wallis test was applied, too, with the aim of testing the differences between the groups of young persons coming from various countries.

In the case of question II.8.1 concerning the importance of the information source such as the travel agencies, significant differences were seen from a statistical point of view ($p = 0.009$). Thus, the young travelers from some countries believed that it was important for the information on choosing the vacation to be supplied by a travel

agency. On the other hand, in other countries, the young persons did not think that this matter was as important.

On the information sources such as friends or family, the tourists gave responses that did not vary significantly, their perception on that aspect being similar ($p = 0.487$). The same stands for question II.8.3; when the information sources were the specialized magazines, the value was $p = 0.175$, thus that the answers were similar regardless of the origin countries of the young respondents. In question II.8.4 that indicates the Internet as information source, the statistical test indicated the p value = 0.139. Thus, the responses are similar here, too.

Figure 5 graphically presents the distribution of scores for the responses to the II.8 set of questions.

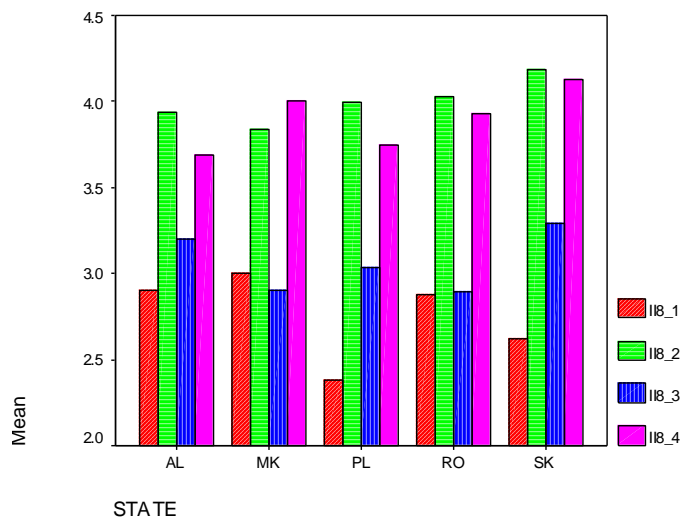


Figure 5. Distribution of the mean of scores for responses to the II.8 set of questions

Source: own editing

In connection to question II.9.1 that describes the importance of recommendations made by friends or relatives, the responses did not vary significantly among groups, $p = 0.399$.

In the case of II.9.2, a question that analyzes the importance of a world-known destination, no significant differences were found between the responses given by the young persons coming from different countries, $p = 0.357$.

For question II.9.3, which surveys whether the information on the Internet is important for choosing a tourist destination, the responses did not indicate significant differences ($p = 0.155$).

In the case of II.9.4, on whether a special offer was the reason for choosing a tourist destination, the responses did not indicate significant differences between groups, $p = 0.998$.

Similarly, for II.9.5, geographically close destination, the value obtained was $p =$

0.376, which does not indicate significant differences from the point of view of the tourists.

However, significant differences were found between the responses supplied by the respondent groups to the question II.9. on the recommendations of the travel agencies, with $p = 0.029$.

In II.9.7 on the importance of an article in a magazine / newspaper for choosing the destination, there were no significant differences between the respondent groups, $p = 0.144$.

For II.9.8, movie made in the country, there were no significant differences between the responses given by the young tourists, $p = 0.051$.

The same stands for II.9.9, importance of advertising, where there were no significant differences between the respondent groups, $p = 0.225$.

However, there are significant differences between the responses given for question II.9.10 on heard about in the TV news, $p = 0.007$.

The same, significant differences were seen between groups in II.9.11, importance of the tourism infrastructure, with the p value = 0.003.

In question II.9.12, when researching the importance of accessibility for choosing the destination, tourists provided different answers. Thus, there are significant differences between their responses according to the persons' origin countries, $p = 0.009$.

For the other three questions, the tourists provided similar responses, regardless of their origin country. Thus, in II.9.13, importance of the factor named support services for choosing the destination, there are no significant differences, $p = 0.053$. In II.9.14, importance of the factor named ancient flavor of the place, $p = 0.556$ and for II.9.15, cultural assets, $p = 0.054$.

Figure 6 graphically presents the distribution of the scores for the II.9. questions.

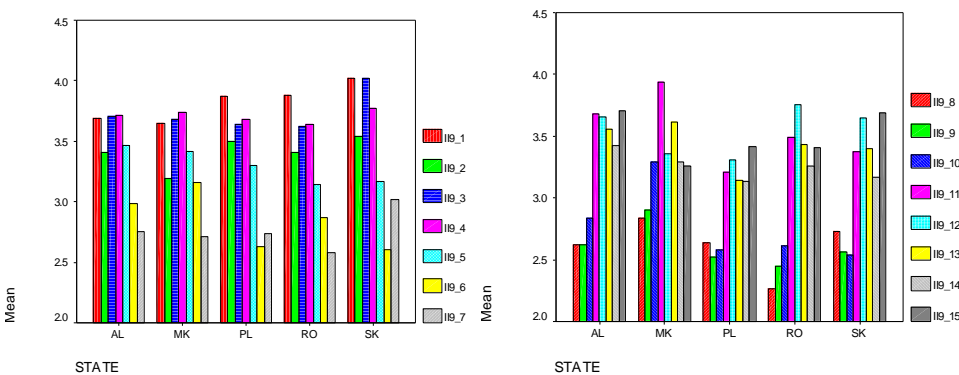


Figure 6. Distribution of the scores for II.9 questions

Source: own editing

Conclusions

The behavior of the young tourists from the five countries, when referring to choosing their tourist destinations, has different traits: on the frequency of holidays, the type of tourist destination they prefer, the distance from their residence to the tourist destination, the category importance (referring here to patrimony, cultural destinations, cities / places well-known for the existence of house museums, cathedrals, where there are art galleries, theaters or parks).

However, it was noticed that there are no significant differences in connection to the behavior of the young tourists when referring to choosing the duration of the holidays. As well, there are no differences between their opinions on the importance of the tourist destination category (if they refer to a particularly built tourist destination).

On the information sources that the young persons use for choosing a tourist destination, only for some countries we noticed that the travel agencies were given some importance.

Regardless of their country, most young persons have the same behavior when considering the information provided by their family or friends. The same, young persons have similar opinions on the specialty magazines or the online ones.

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Part 2

Modern methods and strategies in marketing and management

A PROPOSED THEORETICAL MODEL OF MARKETING IN CAPITAL MARKET

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Abstract: The capital market is like other markets in achieving corporate objectives in accessing to finance for projects, as well as satisfying the desires of investors in obtaining attractive returns for their investments. Therefore, it is necessary to use all 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 firm resources on the capital market by identifying the relationship between marketing actions and firm performance, review study is adopted as methodology by underlining at “marketing-finance interface” perspective to explain the mechanisms and assumptions that control the linkage between both area. 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, firm ‘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.

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

Criterion	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

Methodology of research

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.

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 directly and indirectly 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 et al. 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 letretures

study	Marketing measurements	Firm' performance measurements
(Fornell, Mithas, Morgeson, Krishnan 2006)	customer satisfaction	Stock returns
(Joshi ,Hanssens 2010)	advertising spending	Stock returns
(Lu , Jong 2012)	advertising spending	Stock returns
(Srinivasan, Pauwels, Silva-Risso, Hanssens 2009)	Product innovation and marketing investments.	the explanatory power for stock returns
(McAlister, Srivinasan, 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: Created by the authors

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 interfuctional 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.

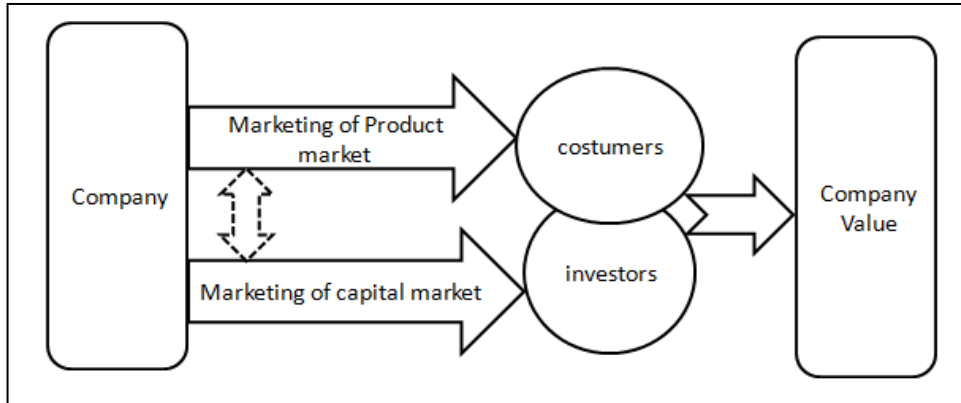


Figure .1 Proposed theoretical framework for a marketing role in capital market

Source: Created by the authors

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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THE IMPORTANCE OF POLICY IMPLEMENTATION IN KENYA'S SCHOOL FEEDING

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Abstract: Healthy nutrition interventions need to occur early in childhood and adolescence in order to prevent or reverse adverse health effects of over nutrition or under nutrition and poor eating habits. Childhood and adolescence are critical periods 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 hasn't 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.

Keywords: policy, school, feeding

Introduction

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 school going children and their adjacent communities. Following the food fuel and financial crises of 2008, the demand for school feeding programs worldwide grew substantially, this is after Governments clearly understood the various Potentials and multiple benefits these programs had (WFP, 2014). 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 (World Bank, 2015). In addition to their contribution to education, they support families and help promote human development (Alderman and Bundy, 2011). 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 programs also have the potential to benefit local producers and economies and promote long-term food security (Bundy et al., 2009).

To guide the operations in school feeding to meet all targets and address issues such as increasing levels of obesity among children, many countries have well established school feeding policies which address varying aims. For instance, In Japan, emphasis is on increasing nutrition education and healthy eating habits among school children. In Mexico, matters related to the double burden of overweight and under nutrition and better response to diverse local needs by providing locally and culturally preferred foods are emphasized. With the largest school feeding program in the world, India goal is to ensure that all children pursue lower primary education by increasing enrollment and boosting nutrition status. In Egypt, programs aim to reduce child labor by increasing the access of quality education of vulnerable children, promote sustainable livelihoods for households of these children and increase access to national social protection programs

Despite the numerous advantages of school feeding programs, Kenya as a country has no existing school feeding policies in place. Kenya being a sub Saharan country, is ranked as a low middle income country, it 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 to 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, Who do not have policies governing various institutions that play host to them on matters pertaining to food handling, food storage, health and safety, and nutrition content of the food served to students. Effective catering services on health is determined not only by the quality of raw materials but also by the appropriate environment, technology and practice of food handling and consuming (Andras J. T and Andras . B, 2014) this paper sets out to explore the current situation in Kenya, and the nutritional content of food served in various Kenyan school.

Literature review

Importance of school feeding

According to Carter (2002) Schools can provide an important opportunity for prevention as they provide the most effective way of reaching large numbers of people, including youth, school staff, families and community members (WHO, 1998). 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 WFP (2014) 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 situations is rendered

worse when subjected to this 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. Like cash transfers or any other type of conditional transfer, school meals represent a transfer of income to a household. If economic value of the meals is taken in to account, they amount, on average, to more than 10 to 15 percent of household expenditures (World bank, 2011).

School feeding is often integrates in to the broader welfare system (Alderman, 2012) in various ways such as, ensuring the poorest and most venerable in society get the most benefit which in turn contributes to the promotion of equity. Bench marking of costs and keeping track of costs, due to the availability of various financial information pertaining school feeding expenditures, many countries can stream line and increase transparency levels of their programs (Alderman, 2012). Previous studies show compelling evidence of how school 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 feeding acts as a school going incentive, enhancing enrolment and reducing absenteeism of students. The benefits are, improving their nutritional status and improving children's cognitive abilities (WFP, 2015).

In high and middle upper income countries have 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 (Andras. T and Andras . B, 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 greatly depends 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 (Snyder et al., 1999).

School feeding programs are also known for Micronutrient fortification and bio fortification 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 (WFP, 2014). According to Morgan (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 those that are fresh and unprocessed. These efforts include providing indigenous crops, like the cereal quinoa in the Andes and several types of banana in Asia that are closer to what children may eat at home.

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

Situation of School feeding 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 kilometers (225,000 square miles), Agriculture being a dominant sector of the economy. Kenya boasts of approximately 1.2 million children in 3,600 schools all around the country, 21.3 percent of this are primary school student. In 2013 Kenya acquired the new status of middle level income country as its per capita earning grew to 1,165 USD.

The country holds a strategic development plan called Vision 2030, 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, M (2008) Seventy-four percent of the schools feeding programs of countries in 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 a sizeable economy and a robust 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 percent 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 that 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 home to roughly 30 percent 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 enrollment, and combat social pressures that limit educational opportunities for girls, the Kenyan government began a school-feeding program in 1980 (Regnault De La Mothe 2008). 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 percent 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 enrollment and a 12% increase in ASAL school enrolment (Finan 2010). Though school-feeding programs have increased student enrollment rates, attendance, and exam scores, rural districts have exhibited only modest gains in completion rates and advancement to secondary school (Finan 2010). With average completion rates hovering at around 34 percent in arid and 57 percent 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 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 2003). 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 aspect

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.

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 (Siekmann J, 2010). 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, had been noted for having the following deficiencies have been noted: 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 anemic.

Methodology

The present paper is theoretical, which provides a wide literature review and discussion about the relevance of the implementation of a school feeding policy in Kenya. It synthesizes the exciting literature and gives a holistic view on the benefits of school feeding policies to Kenyan schools. In order to achieve the research goals, a wide literature survey carried out on the impact and influence of school feeding policies in different countries of the world and its implication on children's health. The collection of literature sources was made using various databases of Scopus, web of science, Pubmed, Science Direct, Google search, other search tools and the use of the institutional library, where most of the literature sources were found. Keywords such as school feeding policy, Adequate diets, benefits of school feeding policies, impacts of school feeding policies, were used to achieve the relevant literature sources.

The basic pillars of the literature review were conducted in two fields, firstly, the benefits and achievements of school feeding policy both globally and regionally. Secondly, the impact of school feeding if implemented in Kenya. The main goal for this paper was to build the theoretical background for the future empirical research, the authors highlighted the benefits of policy implementation in school feeding in Kenya as a way of enhancing Kenyans younger generation's health as a new focus of research. By which a conceptual model for survey is to be developed.

In addition to these, a short survey, by use of questioners were also carried out in the study. This was done to better understand the current situation in the county, where no school feeding policies are in place to ensure adequate and proper feed in schools. The questioners, which were closed ended, were self administered to 30 respondents who belonged to different high school and were from different regions in the country. The questioners simply required respondents to recall their daily food menus in high school. The questionnaire targeted various varieties of high schools in the country including; private, semi private, national schools, county schools and semi county schools.

Results and Discussion

Menu analysis

Table 1 below summarizes the results from the questioner, generally summing up all the dishes offered for every meal option in the different school categories. Breakfast in all schools lacks protein such as eggs or sausages, because 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 others carbohydrate accompaniment like bread or doughnut. Generally In most occasions students are under feed during breakfasts especially in school that only offer tea in the morning and midday break.

Most school try to give a balanced diet, in the form of maize and bean mixture called (Githeri). Many despite their category relay Ugali (stiff porridge) and vegetables which is not a balanced diet. Despite this some schools consume it more frequently than others do. 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 student were only given rice as a meal with accompaniment, which was observed in some private schools. Also in rear cases some school offered it's students very nutritious meals such as sardines and Ugali despite their poor ranking or lower category.

In majority of the schools fruits were nonexistent, only two out of a sample of twelve provide fruits to the students occasionally. Generally the Macronutrient that is generally compromised is proteins, most meals lack proteins I their composition. This findings are similar to Charles Njeru (2017), in an article published in the world food program insight dubbed, "Introducing Fruit and Vegetables in School Lunches in Nairobi", Due to the dull and innutritious nature of school foods in Kenya, the WFP is looking for ways to diversify the school meal diet effectively and sustainably, as schools meals still serve as a great role not only in promoting access to education but also enhancing health and nutrition of the learners. By partnering with fresh food export companies to salvage and transform vegetables intended for export but rejected on a cosmetic basis, The WFP has found access to a wide array of vegetable and even fruits that could be used to improve the nutritional value of the food served to children in Nairobi schools. Some of these vegetable include; rejected green beans, snow peas, snap peas and broccoli. These vegetables are added to the commonly served githeri, (maize and beans mixture) which aid in enhancing both its taste and nutritional value of the meal.

Table 1. A sample of school menus from different category of schools in Kenya

School category	Breakfast	10.00 Break	Lunch	Evening Break	Supper/ Dinner
Public National schools	Tea and 6 slices Bread	Black Tea Hot cocoa	Rice and beans Maize and Beans (Githeri)	Hot Water	Ugali (stiff porridge) Cabbage and Meat Ugali (stiff porridge) and Kales Ugali and Cabbage
Private schools	White Tea and A slice of Bread White tea and Mandazi (doughnut) Porridge, Slice of	Tea and A slice of Bread Nothing provided	Rice and Potato stew Ugali and Kales Maize and Beans (Githeri) Rice and beans mixed with	White Tea	Ugali and Kales mixed with Meat Rice and beans mixed with potatoes Mashed potatoes and Cabbage Maize and Beans (Githeri)

	Bread and an Orange Tea		potatoes Ugali and Kales Plain Rice		Ugali and Kales Ugali, Kales Kales and Meat
Public County schools	Tea and Bread Maize meal porridge	Hot cocoa Black tea	Maize and Beans (Githeri) Ugali and kales Tea, Maize and Beans (Githeri)	Nothing provided	Rice, meat and green grams Ugali and Cabbage Ugali and Kales Boiled huskless dry maize (muthokoi) Ugali, Cabbage and meat Ugali, Meat and kales Tea, Maize and Beans (Githeri) Ugali and Sardines or Tilapia
Semi Private County school	Black tea and bread Milk tea and bread Black Tea or White Tea	Nothing provided Black Tea or White Tea	Maize and Beans (Githeri) Maize and Beans (Githeri) with Black Tea Ugali and kales Ugali, kales and beef	Nothing provided Coffee and scones	Ugali and Kales Ugali, Meat and kales Rice, lentils and a fruit Ugali, Cabbage Rice, Beans and a fruit Rice, beef, kales and fruit Rice, Beans and vegetables Maize and Beans (Githeri)
Semi private schools	Tea and 6 slices of Bread Porridge	Black Tea Coffee	Ugali, Cabbage and Potatoes Ugali, Cabbage mixed Potatoes and Meat Pilau, beans mixed with Bananas Ugali, Cabbage Ugali, Cabbage Mixed with meat Rice , with beans	Nothing provided	Maize and Beans (Githeri)

Source: Created by the authors

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, Pope Paul VI

Junior Seminary Machakos, Private schools: Elite Senior High School, Manor House High School.

Conclusion

School meals programs are the most prevalent safety net worldwide (World Bank, 2015) as seen in the text above. School feeding programs have many tangible benefits such as ensuring a healthy young population, source of income for impoverished families especially during economy hardships, and increased school attendance and enrolment. 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, instill and nature a healthy consumption culture among the young generation and to improve the overall economy by creating markets for the local agricultural products, mean while creating jobs for the thousands of jobless people. In order for the country to achieve its development agenda, Vision 2030, it has to invest in the school feeding program as a way of meeting SDG's and ensure social equality and inclusion.

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EFFECTIVE MARKETING LOGISTICS AS A BASIS FOR COMPETITIVE ADVANTAGE

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Abstract: All over the time managers tried to find the most appropriate strategy to differentiate their marketing offer and create a sustainable competitive advantage for their firms. So, this paper aims to highlight the importance of marketing logistics and increase the understanding of how firms can create a sustainable competitive advantage through effective implementation of marketing logistics operations. To achieve the research purpose, a desk research was conducted, and a literature survey was carried out on the main concepts of supply chain management and marketing management. Literature resources were collected by using various databases 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 center seeing it as an efficient system that can reduce costs and have a positive impact on product affordability and availability. Since the relationship between marketing activities and supply chain management activities through marketing logistics resulted in achieving a high level of customer service by effectively coordinate booth functional areas activities toward achieving customer satisfaction.

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

Research purpose

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.

Research design

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, p. 36; Kwak, et al., 2017, p. 24) has resulted in greater competition cost (Mehta, 2007, p. 841), increased amounts of more customized products, and shortening product life cycles. Which generated more unstable fragmented markets and further management challenges that forces firms to apply new and creative supply chain (SC) design and management (Hilletoft, et al., 2009, p. 1180). Consequently, firms often stock with inefficient supply chains where inventory holding costs are increasing and lead time is rising. According to these situations, firms 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, p. 228).

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, p. 17). 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, p. 298), therefore, to create a more effective supply chain, researchers contain upstream, midstream and downstream partners in the supply chain concept to emphasize the importance of sharing information and risk, synchronize business operations, improve customer services, and enhance customer satisfaction (Liao, et al., 2017, p. 144). 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, p. 7; Green Jr., et al., 2012, p. 1009). 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, p. 146).

In general, SCM match supply efficiently with demand, but while doing so, it does not help firms 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 focuses 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, p. 8).

Integrating supply chain with marketing

Utilizing supply chain to achieve customer satisfaction requires cross-functional integration (Ellinger, 2000, p. 87). 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, p. 231). 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, p. 10). 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 unneeded orders will result in maximizing inventory and will cause capacity to be underutilized (Mehta, 2007, p. 844). To solve this problem, supply chain management should plan and coordinate the material flow from producers until it reaches the final customer as an integrated system rather than as separated activities. Hence, to apply this integration supply chain managers should link the market, the distribution network, the production process and the procurement activity to assure that customers are fully satisfied (Christopher, 2011, p. 9).

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, p. 145), 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, p. 86). Interdepartmental

collaboration will ensure that customers will get a high services quality (Ellinger, 2000, p. 86), and allow firms to leverage their suppliers and customers resources and knowledge to achieve a stronger competitive position (Masten & Kim, 2015, p. 14). 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, p. 3).

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, p. 47).

In the present conditions of increasing competitive environment, firms start 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, p. 7). Therefore, to be successful, firms need to manage a good level of supply chain collaboration to enhance competitive performance through integrating its internal functions and effectively linking them with the external operations of their suppliers, customers, and other channel members (Liao, et al., 2017, p. 146) which will help forms to maintain and enhance their products value (Grishchenko, et al., 2016, p. 166) as a result of sharing additional cost and time by all of supply chain member, and so performance of the whole supply chain and the individual firm will be improved (Ilić & Tešić, 2016, p. 1159). 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, p. 36; Sarangi & Srivatsan, 2009, p. 228; Luu, 2017, p. 4). 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, p. 1009). 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, p. 87).

On the other hand, most of buyers buying decisions are affected by product quality, service level, buying cost, and the existence of additional services, this requires firms to form logistical approaches that facilitate monitoring the presence of products in the database and prevent shortage of products, which will help to reduce costs of transportation and product delivery cycle, which will lead to a higher customer service quality (Prokhorova, et al., 2016, p. 34).

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, p. 1161; Sarangi & Srivatsan, 2009, p. 227).

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, p. 766). On the other hand, logistical activities can help in quickly disseminating data among departments, plan production operations, coordinating between intermediaries, and promote the products to customers (Prokhorova, et al., 2016, p. 35). Thus, 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, p. 35). In addition, almost in every situation, marketing activities generate demand while SCM function fulfills that demand (Golgeci & Gligor, 2017, p. 475), accordingly, logistics and marketing should be viewed as a one whole function rather than a two separated functions or departments (Ilić & Tešić, 2016, p. 1158). So, increasing the interaction between logistics and marketing became a key factor in the competitiveness for any firm (Prokhorova, et al., 2016, p. 35).

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, p. 1010).

Main functions of logistics

Logistics is defined as a science of managing material flows through three flow stages of (1) material flow which is responsible for making material and inputs of production available before starting any production process; (2) Management of flow process while the production process is taking place; (3) Management of the process of delivering the finished product to final consumers (Guzelbaeva & Datsyk, 2017, p. 156). 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” (Christopher, 2011, p. 2).

Logistics has an impact on the costs associated with the sale of products (Chira & Musetescu, 2017, p. 74), and also it has an impact on improving the competitive situation of companies in the market (Sarangi & Srivatsan, 2009, p. 230) 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, p. 36).

Marketing logistics

Marketing is essential for organizations since it helps to define their strategic direction and performance outcomes (Cacciolatti & Lee, 2016, p. 5597), 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, p. 855). However, marketing logistics strategy is a part of marketing strategy which concerns with the establishment of long-term goals regard marketing logistics structures. Hence, firms can achieve a sustainable competitive advantage by applying better logistics planning and enhanced supply chain management, (Christopher, 2011, p. 4).

In fact, product or service will not have any value until it reaches the customer's hands. Therefore, marketing logistics is about delivering a good level of customer service in the context of providing time and place utility. But making a product available in markets is impacted by a lot of factors as delivery frequency and reliability, inventory levels, and order cycle time, which will constitute customer service when interacted with each other (Christopher, 2011, p. 31).

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' (Guzelbaeva & Datsyk, 2017, p. 156). Also Grishchenko, et al., (2016) defines it 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' (Grishchenko, et al., 2016, p. 171).

Successful marketing logistic management deal with some complex problems as analysis of material flows, packaging, harmonization of loading units, storage system, transport routes, warehousing, etc. (Guzelbaeva & Datsyk, 2017, p. 157).

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, p. 19). This will enable the organization to match its logistics service offerings with customer's needs (Pellathy, et al., 2018, p. 8). Second, firms must have long-term relationships with their external and internal customers (Gimenez & Ventura, 2005, p. 32). which will allow firms to keep informed about customer preferences and constraints and improve firm's ability to efficiently provide services that support customers' objectives (Zhao, et al., 2001, p. 92). 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, p. 8).

Conclusion

Recently, 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 positively impact the final price of 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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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 supply chain management because this area is gaining recognition. Plus, the aim is to use factors for future research. So, this study is based on the literature 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 appreciation. 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, p. 3). The healthiness of the product is the upper importance and a basic foundation in the Halal food industry (Ali & Suleiman, 2018, p. 216). Additionally, consumers nowadays are concerned not only about better-quality, safer food but more on the integrity of the food (Ali, et al., 2017, p. 4; Soon, et al., 2017, p. 6). 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, p. 36). 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, p. 3). 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?

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, p. 12). As mentioned by Ali and al. (2017, p.3) (mentioned in 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 and can be defined as “the business processes of improving a firm’s performance and fulfilling customers’ demand by supplying products, services and information that are in accordance with Shariah” (Ali, et al., 2017, p. 5). Before continuing, it seems important to us to add some information about the nature of the supply chain management.

Methodology of research

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.

Supply chain management

According to Mentzer *and al.* (2001, p.18), 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 needs the integration of processes from sourcing, to manufacturing, and to distribution crossways the supply chain (Mentzer, et al., 2001, p. 9).

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, p. 532). Nowadays, consumers are affected not just about safer food and better-quality but more on the integrity of the food (Ali, et al., 2017, p. 4; Soon, et al., 2017, p. 6). 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 (Zulfakar, et al., 2014, p. 60). Moreover, studies have shown that Muslim consumers are now more conscious of their food consumption (Ab Talib, et al., 2013, p. 3), and they are demanding Halal supply chain to further range the Halal product integrity (Kamaruddin, et al., 2012, p. 383). Also, it has been deeply confirmed that customers are ready to pay for the quality of Halal logistics (Kamaruddin, et al., 2012, p. 383; Tieman, 2013, p. 2) 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, 2013, p. 3).

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 (2013, p. 3) suggested that the critical points in Halal supply chain are during transportation, storage, and terminal operation. Zulfakar *et al.* (2014, p.61) 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, p.384) 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, p. 74; Lam & Alhashmi, 2008, p. 260). 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, p. 260) and concern on cost reduction of the logistics industry (Wilson & Liu, 2010, p. 108). Secondly, the complication of today's supply chain is making integrity problems harder to distinguish (Abdul , et al., 2009, p. 41). 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 (Yang & Bao, 2011, p. 465) 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, p.208), "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, p. 3). Therefore, certification is an extensively used mechanism to control the integrity and marketing of Halal foods crossways to supply chains (Farouk, 2013, p. 814; Van der Spiegel, et al., 2012, p. 110). 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, p. 219). 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, p. 708). 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, p. 16).

Halal trust among supply chain members

Traditional, conferring to Tieman (2013, p.6), 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, 2013, p. 3). 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, p. 3), and they are demanding Halal supply chain to further extend the Halal

product integrity (Kamaruddin, et al., 2012, p. 383). The integrity of Halal food supply chains is becoming a growing concern (Zailani, et al., 2010, p. 74; Lam & Alhashmi, 2008, p. 260). 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 companies 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 (2013, p.3), 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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HEALTH AND SAFETY AT WORK AS A FACTOR OF CORPORATE SOCIAL RESPONSIBILITY. REVIEW OF SELECTED PRACTICES IN POLAND

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Abstract: Providing a job in a modern organizations is connected, unfortunately, with many kinds of psychosocial threads which usually, result from a bad planning and work management, wrong work organization and its conditions and unfavorable social work environment. It can be affirmed that mentioned threads as well as stress connected with work are, in our modern times, the most important challenge in the field of occupational and health safety. These issues have a crucial impact on employees' health, condition of the organization and even the whole countries' economies. The aim of this elaboration is to show, based on organizational practices that the actions in the scope of health and safety at work (HSW) are factors that shape the quality of life in the workplace, they are an integral part of the concept of a socially responsible organization.

Key words: health and safety at work (HSW), CSR

Introduction

Changes that are currently observed in a social and demographic layer of personnel management of the modern organizations force employers to metamorphosis in the field of perception of the employee and his broadly understood needs and expectations (moving away from the subject towards the treatment of personnel). An adjustment from the employer's market to the employee's one which is visible in many sectors of Polish economy revealed the importance of an employee for the continuity and efficiency of the organization. No wonder then, that problems with gaining new employees and holding them in the company led the attention of employers for activities in the area of health and safety at work, which, however, go far beyond solutions in the area of liquidation of physical hazards that may arise during the performance of work. Increasingly, organizations include any initiatives which goal is to rise the comfort of work and quality of life of the employee what is recognized as a part of inner Corporate Social Responsibility (Ubrežiova, et al., 2012), this is a common challenge and strategic question for large companies and even in SMEs (Bylok, 2016, pp. 12-26).

Currently, providing a job by employees is connected with, among others (Europejska Agencja..., [http...](#)):

- excessive workload;
- conflicting requirements and lack of clearness about the organizational role played;
- failure to participate in making decisions relating to the employee;
- no influence on the way the work is done;
- poor management of organizational changes and insecurity of employment;
- ineffective communication and lack of support from the management or colleagues;
- mobbing, sexual harassment and violence.

A special question of inner CSR activities is connected to employment of people with disabilities (Sharma, Dunay, 2017, pp. 7-33; Csillag, et al., 2018, pp. 57-81), where managers' attitudes and their inclusive way of thinking plays an important role. (Sharma, et al., 2018, pp. 331-357) Named psychosocial threads mainly come from the wrong planning of work management, wrong work organization and its conditions and unfavorable social work environment. No wonder then, these aspects and a stress connected with work are, at present, the most important challenge in the field of occupational and health safety. These issues have a crucial impact on employees' health, condition of the organization and even the whole countries' economies. The aim of this elaboration is to show, based on organizational practices that the actions in the scope of HSW are factors that shape the quality of life in the workplace, they are an integral part of the concept of a socially responsible organization.

Theoretical background of considerations

European Agency of Safety and Health at Work (EU-OSHA) underlines that a work protection should be treated as an integral part of the concept of socially responsible business because employees are the key group of organization's stakeholders. Amongst the recommended actions considering CSR's assumptions there are (Europejska Agencja..., 2006):

- improvement of working conditions (including health and safety at work), as well as increasing a job satisfaction;
- implementation of the idea of work life-balance (WLB);
- equalizing opportunities for all employees;
- providing training and professional development opportunities and assistance in career planning;
- supporting the development of effective communication with employees and employee decision-making;
- responsible and fair remuneration as well as providing financial support for employees.

Within activities related to the improvement of employees' life and work quality in a special way it is emphasized to respect the basic human and employees' rights such as (Pećillo, 2011, pp. 19-21):

- not hiring children;
- non-use of forced labor;
- compliance with basic rules and compliance with health and safety regulations;
- ensuring freedom of association and the right to collective bargaining;
- non-use of discrimination and its counteraction;
- non-use of physical and mental coercion towards employees;
- compliance with legal regulations relating to working hours limits;
- and providing remuneration not lower than required by law.

In Social Accountability norm (SA 8000) ([http://www.sa-intl.org/...](http://www.sa-intl.org/)) implementation of social business responsibility is connected with such elements of an organization management system: policy, management review, top management representative, planning and implementation, supervision of suppliers and contractors, corrective actions, social communication system and legal provisions. (Pećillo, 2011, pp. 19-21) The compatibility of these elements enables the development of an integrated system of quality management, environment, occupational health and safety as well as social responsibility. The policy of organization in the field of social responsibility and working conditions should be documented and consist of the assurance on compliance with higher-level norms defined in legal acts, and also oblige to constantly improve the standard of the work environment. Inclusion of health and safety issues into responsibly social practices is also treated as a measure of the system of assessing the level of corporate social responsibility. Requirements SA 8000 standards for health and safety oblige the organization to:

- ensuring safety and healthy working conditions for all employees;
- preventing the accidents at work and occupational diseases by limiting hazards as far as possible at the design stage of workplace;
- appointing a representative of the top management responsible for health and safety issues and working conditions;
- organizing systematic and documented health and safety training;
- developing a system of prevention, preparedness and response to potential emergency situations;
- ensuring proper sanitary conditions.

In Poland a voluntary extension of CSR's elements in the field of HSW is not so common, international corporations lead the way in this actions. The most often the occupational health and safety practices included in the CSR include: WLB solutions, medical care packages, subsidies for a nursery or kindergarten, flexible forms of employment, the opportunity to work at home, part-time job, supporting personal development and co-financing of various forms of non-professional activity of employees. By these activities organizations want to increase the awareness of employees, subsume them under the common responsibility for providing a safe workplace so that security becomes a value recognized by them, also perceived in

terms of benefits. Occupational safety projects also include subcontractors as well as contractors. Insertion of CSR's principles doesn't have to be connected with formalization of the system on the level of implementation of standards such as SA 8000. It also doesn't have to go to any great expense, because even small activities in this area may contribute to create a positive image of the organization among employees, society and business partners. The examples can be the actions in the field of flexible working hours organization, the opportunity of home office and a positive attitude to motherhood and fatherhood. Actions which lead to reduce, eliminate and counteract discrimination and mobbing also influence the positive perception of the organization. Inclusion of CSR principles in the area of health and safety pays off with the increase of employees' loyalty and commitment, improvement of work atmosphere, inhibition of personnel fluctuations, thanks to which employees' knowledge is retained in the organization, which also reduces costs related to recruitment and adaptation of new employees.

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" has been studied. They were 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 HSW has been analysed presented in the next chapter.

Results - review of HSW practices

As part of the "Responsible Business in Poland 2016" Report (*Raport: Odpowiedzialny biznes w Polsce 2016*) a number of health and safety practices were collected. Below, the overview of the chosen CSR's practices from the field of work safety excerpted from the Report a responsible business in Poland 2016 (Raport..., <http://odpowiedzialnybiznes.pl/...>), is shown.

Yearly, each time on April, 28th the Word Day of Safety and Protection of Health is celebrated. It was proclaimed in 2003 by the International Labor Organization in cooperation with the World Health Organization and the International Confederation of Trade Unions, for many organizations it becomes an excuse to organize activities related to ensuring safety in the workplace. The Antalis Poland company organized in this day the workshop for its employess of every level which presented various accidental events that may occur at work and conducted practical classes in the field of prevention. To make the management aware of potential threats, directors and managers had the option, after the previous instruction, to practice the forklift ride.

Trainings, seminars, lectures and safe work demonstrations were a way to promote safe workplace behavior in two companies on that day: Eiffage and DB Cargo Polska.

In turn, the Sanofi pharmaceutical company in the Days of Safety dealt with the promotion of safe driving rules, eco-driving and ergonomics, extended by practical classes in the field of first aid, assembly of child seats or the use of vehicles. A brewing company organized trainings of paramedics' groups for every employees who expressed the willingness readiness to help the others in the situations of potential threats. A few weeks' project which leads to improve and strenghten gained abilities had its final during the Word's Safety Day organized in the area of every brewery, when defibrillators were handed over to brewers. Safety Days are also organized at the headquarters of LOTOS Group, in Pilkington Corporation and Skanska in Poland. As part of this day, brochures and posters are distributed, as well as presentations and training organized not only for employees, but also for schools and residents. TAURON Polish Energy realizes the project „Good morning with HSW” under which, every day one minute is devoted to work safety and proper behavior during performing official duties. It is realized afoot of first meetings/ briefing in a weekday. CEMEX company diagnosed that 95% of injuries among hired drivers takes place outside the truck during unloading works. The special procedure was then created, in the light of which the driver secures the place of unloading, carries out risk assessment, and then proceeds to unloading the goods. If too much risk is identified, he or she contacts the company and receives further instructions. He also creates a so-called hazard alert, or documents with hazard warnings, on the basis of which plans are created to improve the safety conditions for drivers in unloading places at the customer's premises. Employees of Kuehne+Nagel company from the logistics industry during the conference and workshops are perceived about the threats connected with harmful factors of their work, such as stress, noise or lifting. Thanks to the actions taken, the employees' absence and the number of accidents at work decreased. With the specific problems concerning the safety of work EDF Poland company had to assailed. The problems concerning communication with non-polish speakers and unequal awareness of work safety among employees of subcontracting companies, led to the creation of a system for identifying safe behaviors among employees of subcontractors and issuing a pocket publication entitled "Essential Health and Safety Requirements for external companies" in Polish, English and Ukrainian versions.

For managers of PKN ORLEN behavioral safety is treated as equally important as technical and system safety. The organization wants to develop its accidents- free culture of work by the system of employees' support that depends on a periodic advisor's visits in a workplace to assess the employee's behavior and to conduct a constructive dialogue aimed at preventing dangerous behaviors, correcting them, improving awareness of work safety and shaping safe habits. DB Schenker's transport company declares that the concern about the environment and safety is a basis of its action's strategy. That is why it concentrates on activities connected with a proper recruitment and education of the hired carriers. It organizes the trainings led by police officers, paramedics and specialists in the field of cargo security. It conducts the

verification and monitors behavior at work and on the roads, and it prepared a plan of action in the event of an accident. The company has also equipped cars used to perform transport tasks with a special sticker with a hotline number, encouraging other road users, to share their opinion on the carrier's driving style. The consequence of such applications are both praise and critical remarks that both the carrier and his supervisor receive.

In Polpharma Gropup, Żywiec Gropu and Skanska in Poland longer projects are taken which occurs under the title of „Week of Safety” under which amongst HSW issues, the problems of health and safety in everyday aspects of life are shown, such as: dealing with stress, first aid, preventive examinations or fire extinguishing training.

Employees of SumiRiko Poland conduct obligatory, interactive, twenty-minute training, the aim of which is to practice the ability to anticipate hazards in the workplace and take steps to remove them.

Increasingly, the organizations recognize the fact that employees during their lifetime realize many roles and the modern way of providing a job(increasing availability) makes the roles to permeate and the fulfillment of some does not begin when the fulfillment of others ceases. The easiest way to see this is with working parents. In the past system in Poland, clearly defined working hours, convergent with the hours of functioning of institutions such as nursery, kindergarten, school, allowed for relatively easy reconciliation of work and family life. The enterprises themselves also limited their understanding of the work-life balance to the statement that an employee leaving the workplace, for example at 14.00 or 15.00, after an eight-hour work day, can perform in non-professional roles. Currently, when formal employees finish work they are still at the disposal of their superiors, it is difficult to clearly separate the time allocated for work from the time allocated for the implementation of other spheres of life. No wonder then, that the WLB's projects become the elements of CSR. ERGO Hestia opened a kindergarten for its employees' children where interesting and original classes were proposed and they were enriched with workshops and many events. The kindergarten has an integration character and it also accepts children with diagnosed disabilities. Rich curriculum are implemented thanks to the fact that the kindergarten has a theater hall, a playground and an art room prepared for painting and clay work. In the kindergarten, children can also attend rehabilitation and speech therapy classes. Infosys Poland also supports its employees in reconciling the role of a young child's parent with professional duties by organizing a company kindergarten. In turn, Dentsu Aegis Network Polska has launched the so-called "Wonderland" in the company's building, that is, a place of professional care for children during their parents' working hours. In this place are also carried out additional activities and events, such as: celebration of the Children's Day or half-camp. Very similar benefits can be found in the form of „The parents' friendly room” which was offered by T-Mobile Poland. It is a specially made sphere in its headquarters where employees can work and at the same time have their own children under control. The company also proposed its employees- parents a facilitation connected with children' care during holidays. It was also possible to send children on a half-day, organized on the premises of the company. As part of a semicircle,

programming activities, robot construction, principles of cellular telephony, participation in dance workshops, going to the cinema and visiting the factory were carried out. Fledgling parents Antalis Poland gives gift vouchers to a store with children's articles in order to complete a layette for a newborn child. A similar service, as part of the "Parent-Friendly Company" solution, is offered to its employees by National Propriety Bank. In addition, it offers additional days off for parents and co-financing for medical care of family members of employees, as well as for holidays and trips for children. Millennium Bank proposed a wide range of initiatives addressed to parents and their children, including: an intranet site with tips for parents, co-financing of cultural and sports projects promoting family spending time, events and contests directed to children or parents, or providing rooms for feeding children. As a part of a project „Employer friendly to a family” PKN ORLEN offers many pro-family benefits, such as: additional care days for children uptill 3 years old, an additional hour for feeding a baby, a gift for newborns of employees, examination of pregnant women, rooms for breastfeeding mothers, sending information about parental leave, a guide for parents on the Intranet and other social benefits. Volkswagen Poznań as part of the "The Mother-to-be" programme provides employees with a shorter working day, parking spaces and a room for feeding. CSR's practices from the field of work- life balance are not connected only with employees who are parents but, they are adressed to different groups of hired people because its goal is to rise the effectiveness of work and the improvement of daily life's comfort. ArcelorMittal Poland company during the Days of Balance proposed to its employees workshops titled „Inside balance”, „Sleep for health” and the workshops of musical relaxation. BASF Poland uses the initiatives WLB like: Christmas meetings, sports matches and massages that build employees' engagement, create a friendly working atmosphere and support mutual getting to know each other. Similarly, Dentsu Aegis Network Polska as a part of the Wellbeingdentsu programme by supporting company sports teams, a cycle of office massages for employees, promotion of a healthy lifestyle and nutrition disseminates the idea of WLB. Interesting solutions in the field of WLB were proposed by Flex@PwC. They meet the individual needs of employees and include four types of benefits: reducing working hours; matching the hours in which the employee works; determining days per week / month in which the employee have a home office; the possibility of a work break lasting from one to four months, during which the company pays relatively to the period of absence of 25% of the salary for each month (so-called Sabbatical Programme). The support for employees concerns situations in which the employee leaves the company. Antalis Poland offers an individual outplacement which goal is to help finding the satisfactory continuation of a carrer path or changing a current career. The Bank of National Propriety offers the Employees' Retirement Programme which has a form of an organized, group and systematic investments in the future retirement from the employer's funds. The participant of the programme can also declare an additional, voluntary contribution which he or she will pay from own funds. The programme is directed towards employees having a contract of employment, about at least 12 months' internship. Similar solutions were adopted at PKO Polish Bank. Volkswagen Poznan, on the other

hand, gives financial bonuses to employees, to save for the future and raise awareness of the necessity and mechanisms of saving. An unusual form of assistance to employees was proposed by ArcelorMittal Poland, organizing walk/run at the company's premises in which employees and subcontractors participate. Every kilometer that a participant gains results in passing 5 PLN by a company for treatment or rehabilitation of employees' children. Also, Pelion company organized an action in which a fundraiser for the operation of the child of one of the employees was supported. An international airport of John Paul II-Balice realized a Christmas help as an inside fundraising for a few employees' families being in a difficult life situation. The families were chosen by a Company Social Benefits Commission providing full anonymity, it passes only the information about the age and the sex of children and the needs of families. BIBUS MENOS proposes the Programme of Employees' Support which is based on three principles: health, social help and employees' development. The goal of the programme is to create a friendly environment of work and maintain the employees' satisfaction on a given level. An interesting initiative was proposed by mBank which organized an action in social media #WordsHavePower. Clients were encouraged to show and describe the situations in which the employee of the company shocked him or her positively. Then, the conversations with the participants were recorded during which the appearance of an employee was caught when he unwillingly smiles hearing positive information about himself.

Discussion and conclusions

In a concept of a socially responsible business, safety and hygiene of work is identified with a wider concept as a work protection. It consists of any organization's actions in the field of shaping job satisfaction, building balance between professional and non-professional areas of human functioning, preventing organizational pathologies and establishing a dialogue with employees.

Presented practices realized in the field of security and hygiene of work show that organizations more often connect these kind of actions with the realization of different projects in the field of HR as: integration processes, building organizational culture, supporting intra-organizational cooperation, shaping employees' awareness not only in relation to potential risks that may occur in their work, but also awareness of the organization's impact on the social environment. Most of these activities based on training programmes as well as of training skills of managers. (Daróczy, 2012) Organizations by opening themselves to outside stakeholders overtake educational functions and build their socially responsible image. The fact of including activities in the area of WLB into the category of activity in the field of occupational health and safety is becoming more and more important, extending this issue to the level of improving the quality of life in general. The specific range of exemplary activities which were presented in this elaboration show that not the form of this kind of action decide on qualifying it to the group of activities in the field of occupational health and safety but rather the intention of the employer. It is a proof for a transformation in

employers' awareness who treat a necessity to expand undertaken activities for those that in a broad sense improve the comfort of work, build a job satisfaction and reduce the negative impact of the work environment.

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CSR PRACTICES TOWARDS THE DEVELOPMENT OF COMMUNICATION, INTEGRATION AND EMPLOYEE'S COMMITMENT. AN EXAMPLE OF POLISH ORGANIZATIONS

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Abstract: Shaping engagement, understood as the need to acquire employees for the mission and value of the organization, is currently one of the key tasks of Human Resource Management (HRM), which focuses on building the employee's relationship with the organization and arousing the need to make extraordinary additional efforts for the general interest of the organization. It can be accepted that the level of employees' involvement in a performed task can be recognized as an efficiency indicator HRM. To realize this task the organization must take care about the support and development of communication and integration processes. The goal of the following elaboration is the attempt to show that in organizational practices of contemporary organizations, actions aimed at improving communication between employees, building a sense of their relationship with the organization and the team, which are to support employees' involvement, are more and more visible.

Key words: CSR, communication, integration, employee's commitment

Introduction

Together with the political, social and economic changes in the 90., 20th century, in the Eastern Block countries the „carrier” of human resources management concept started (Poor, Karoliny, 2012). A process of changes in the approach to employees was initiated, which instead of being called a "workforce" or "staff", began to be described as the "human resource" of the organization. It should also be connected with the company's comprehensive theory (Ujwary-Gil, 2009, pp. 24-27), which has found its practical dimension in various management models (Illés, Dunay, 2012). An important justification for this approach may be the statement of P. Louarta (Louart, 1995, pp. 19, 235), in the light of which people are considered as resources, and their work as a production factor, because their development, initiatives and possibilities of action actively contribute to the overall efficiency of the organization. The concept of resources, in his opinion, also has a value, because a human being is treated as an asset (wealth) or a potential. With this understanding of the concept, one can not forget about the extreme anti-humanistic tendency to treat people

as "resources", where it is close to equating them with "raw materials" (Nosal, 1997, p. 12).

Thus, people are not literally resources, but, primarily the resource managers- of the traits and properties embodied in them, which allow them to fulfill many organizational roles. The employee as the owner of the human resource has a right to decide about the engagement's level of this resource in the process of work (Czarnecka, 2014, pp. 51-62).

No wonder then, that shaping of the engagement as a need of getting employees for a mission and values of organization is currently one of the key HRM's tasks that focus on building the bond between the employee and the organization and arousing the need to make excessive, additional efforts for the benefit of the general focused in the organization. It can even be assumed that the level of employee's involvement in the tasks performed can be an indicator of HRM effectiveness (Poór, et al., 2018, pp. 25-66).

To realize this task the organization must nurse firstly about the support and development of communication and integration processes. The aim of this study is to show that targeted activities in the organizational practices of modern organizations are increasingly underway for improving communication between employees, building a sense of their relationship with the organization and the team which aspects are to support employees' involvement.

The essence of commitment – literature review

Organizations which posses highly involved employees are capable to change themselves in greater range and faster than those where this level is low. Thus, the involvement becomes the source of the competition's advantage that leads to achieve better results (financial as well) and higher labour productivity (<http://barometrzaangazowania.com/>).

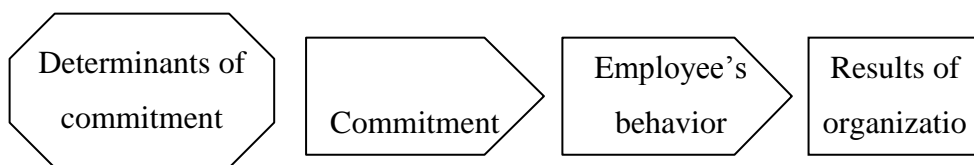


Figure 1. From the factors shaping commitment to tough business results.

Source: Barometr Zaangażowania, 2012, *Moc zaangażowania pracowników. Wykorzystaj ją w swojej firmie*, <http://barometrzaangazowania.com/> (dostęp 15.03.2018), s. 5.

The involvement is defined both in the scientific literature and the business practice. But, practitioners alike theorists similarly perceive this issue and underline that the involvement should be seen as a separate, relatively stable state of affective and cognitive character, different from such states as job satisfaction or attachment (Saks, 2006) (Schaufeli, Bakker, 2004). W. H. Macey and B. Schneider (Macey, Schneider, 2008) treat the involvement as a character trait. To understand this issue

well we should distinguish the reasons of the involvement (work environment) from its direct effects (employees' behaviour). According to the psychologist of the work of A. Bakker (Bakker, 2011), the concept of involvement is defined as a relatively permanent psychological state, which depends on environmental factors. From the perspective of organizational practice, the observation of causal relationships, in this approach to the problem, allows us to manage engagement. The summarizing definition was proposed by the Commitment Barometer's creator (the Internet service together with the experts' team specializing in shaping employees' involvement), which indicates that the employee's involvement is a positive state that leads to taking advantageous actions from the perspective of the employer. At the same time, a positive state means (<http://barometrzaangazowania.com/>):

- getting pleasure from the performed work and the optimism towards the tasks;
- giving from yourself all the best;
- approaching work in an enterprise as an important aspect of your life.

Treating the involvement as a constant predisposition (an unchanging trait), would lead to the conclusion that some employees would always be more hard- working, while others would be less motivated, regardless of the situation and taken by their superiors, or the organization of the activity. Such a way of thinking seems to be a convenient explanation of the reluctance to take responsibility for stimulating employee involvement, resulting from a weak personnel policy or badly functioning elements or the lack of a personal strategy relationship with a general strategy or ineffective HRM (<http://barometrzaangazowania.com/>).

Identifying and shaping employee attitudes as an element of human resources management plays an important role especially in crisis situations or during major organizational changes such as mergers, acquisitions, privatizations or restructuring. In many publications regarding the personnel function, building employee involvement is treated as one of the priority goals of human resources management (Armstrong, 1996, pp. 17-18) (Armstrong, 2005, 30-31) (Domański, 2000, p. 56) (Pocztowski, 2007, pp. 35-36) (Stalewski, 1997, p. 11).

One fact is worth to note, that the employee's involvement is the a significant and desirable phenomenon from the organization's point of view and the employee's himself, but for having effective management what is important is not the attitudes themselves but their manifestation in employee behavior. English, unlike other languages, distinguishes pledged commitment from direct and active involvement, which is expressed in specific behaviors (Słocińska, 2014, pp. 111-129).

It is accepted that between attitudes and behaviors there is a cause and effect relationship, the dependence is all the more important the more detailed, specific behavior we take into account (Robbins, 2004, p. 55). Knowing what type of employee behavior can be encouraged by engagement, we can not assume, however, that it will turn into all kinds of behaviors observed by science and practice. An interesting point of view is presented by Aon Hewitt company. It proposed its own approach into involvement, where underlined that the behavioral dimension is a key reference point in the analysis of employees' engagement, which is not only about creating a feeling of satisfaction and loyalty, but in the organizational context

is primarily related to the measurement of emotional and intellectual status of participation and dedication of the employee to the company. In the light of Aon Hewitt's elaboration the involvement occurs on three levels of employees' behaviors, represented by (<https://ceplb03.hewitt.com/...>):

- positive expression about the organization in the relationship with associates, potential employees, clients and other stakeholders;
- showing a deep desire to be a member of the organization, and
- showing excessive efforts and dedication to the activities performed in order to contribute to organizational success.

At present, when the relationship between the organization and the employee (Rudnicka, 2007, pp. 106-110) is transforming, especially behaviors referring to the third level of involvement seem to be the most eligible. Behaviors connected with attitudes of engagement are a form of organizational behavior, which is defined by U. Gros (Gros, 2003, p. 9) as, the ways of individual human activity, the behavior of a group or a team of people and the entire organization. Aspects of these actions involve patterns of reactions for repeating or random actions. Kondalkar, 2007, p. 3). They can be the effect of learning, socializing, gained experience and they also might be genetically determined and then the behavior is mainly created by a personality and a temperament.

The interest of management practitioners primarily attracts non-standard employees' behavior, both positive and negative. Modern human resource management reveals what costs and profits are associated with the behavior of such employees. An example of positive over-normative organizational behaviors is organizational citizenship behavior (OCB) (Organ, 1988). It must be underlined that citizenship is understood as an activity, the ability to self-organize, independence, autonomy, employees' awareness of the need to participate in informal teams and organizations, and to strive to satisfy them, that is engagement and a sense of responsibility (Schmidt, 2014, pp. 27-51)

No wonder then the issue of the involvement analyzed in OCB's context is present in an increasing number of interests of practitioners and theoreticians of management, and therefore there is still a space for the analysis of this issue and its research.

Methodology

For the purpose of analyzing the subject of the research, the data contained in the report entitled *Responsible business in Poland 2016. Good practices* (<http://odpowiedzialnybiznes.pl/...>) has been studied. Report presents CSR practices that has been 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 issues: organizational order, human rights, workplace, environment, fair operating practices, consumer issues and social involvement, and development of the local community. Activities related to organizational communication as well as employee integration and involvement are presented in the chapter below.

Communication, integration and involvement- exemplary practices of Polish organizations

An improvement of communication with employees is important for CSR's effectiveness of activities in the area of labour, but in the light of the *Report Responsible business in Poland 2016* it is not a popular part of organizations' practices. In the above report, only four companies reported taking such initiatives. ArcelorMittal Poland has undertaken a project of cyclical meetings entitled "Breakfast with HR", the aim of which was to arrange space and circumstances conducive to free communication and dialogue of employees with various HR representatives. The meetings take shape of breakfasts for 10- 15 people and they last about two hours. The function of a host during the meal each time acts the representative of a different HR department. His or her task is to present the most important challenges and new projects that his team will have to face. The main topics are, for example, recruitment, training and development or issues related to the scope of human resources and payroll. The members of a meeting may ask questions about discussed issues and they are encouraged to share their thoughts and ideas about improvements as a part of the tasks or new solutions. A similar informal nature of meetings with employees was provided by T-mobile Polska. Regional employees of different levels of employment share their experience and professional views with the members of the board. At the time of these meetings which take place once a month a situation in the region is being discussed. More formal kind of a dialogue with employees was proposed by Volkswagen Poznań company which compiled the Labour Relation Card. The document defines the rights what employee representatives have in the field of notifying, informing and co-deciding, that is participation in the company's processes. This means that in practice the employer can not make any changes (eg in social matters) without consulting employees' representatives. Whereas Horus Innovative Industrial Materials has been offered to its employees three additional formal communication channels. The first is a dedicated e-mail box, where employees can send their thoughts, ideas and remarks on the development of the company. The second is a box physically placed in the office where employees can anonymously leave their comments and complaints. The last but not least is a specially prepared IT tool through which, also anonymously, employees can report violations of ethical principles.

Rationalization of communication between managers and employees is also evinced in the processes of their participation in shaping decisions referring to the functioning of the company. And so, employees of National Propriety Bank once a year participate in a competition where they submit their ideas how to improve the company's operations in fields such as: work organization, cost and bank effectiveness, organizational culture and bank's image, processes, ecology and others. Employer-originators present their concepts and potential benefits and may also declare their willingness to participate in their implementation. Ideas are consulted with experts in a given field, and a special committee decides on their implementation. The ING group elaborated a project which aim is to challenge creativity of employees and promote the innovative attitude towards a daily work. The project is a kind of

a competition that supports local and international cooperation. Employees of every countries where ING group operates can without any restrictions report their ideas for new products and services. At Nowy Styl group, factories' employees can also submit initiatives and ideas in the field of technological and construction improvements, maintenance and safety in plants. Employees on a regular basis can follow the status of verification of their applications, which, after positive opinion, bring bonuses and prizes to applicants. Orange Polska adopted a similar solution by giving employees the opportunity to take their own initiatives and implement improvements in their work environment. The program based on methodological assumptions and tools in the field of kaizen, two years after launching brought about 100 specific operational improvements. Also at SITECH, a special notification system has been developed to improve the workplace, achieve better results and increase job satisfaction. The best ideas wins financial gratuities, which, not only influence the employees' motivation but also stimulate their creativity and by the opportunity of co- determination escalate their involvement. In the said company employees' participation also refers to formal social dialogue with trade union organizations, where cooperation results in the improvement of the company's functioning in the personnel area, OSH, planning, teamwork and preparation of rationalization proposals. On the other hand, Infosys Poland company created Employees' Council in order to strengthen the dialogue with its employees. This formal voice is a link mediating in communication with the employer. Employees can address any problems to the Council, especially a group one. In the course of engagement research, Skanska employees in Poland emphasized how important it is for them if their opinions are taken into consideration. As a result, the "Your opinion matters" program was created, in which 6,500 manufacture and white- collar employees, who discussed the values, ethics, security and opportunities for improvement in the company. A similar approach to the role of employees in improving the organization's activities was represented by SumiRiko Poland, which decided to encourage employees to get involved in the process of improving the workplace. By means of a special form employees can raise their objections and suggestions about company's functioning. Whereas in PKO Polish Bank for the similar goals of reporting innovative ideas a special IT tool (available in the Intranet) was used. Another kind of employees' participation was devised in Press- Service Media Monitoring. Separated employees' budget is spent on purposes that takes into account the interests and needs of employees, which are reported and selected by them.

Improvement of employees' communication and participation plays an important role in the processes of preventing abuse in the workplace, because they promote the spread of uniform company norms and values among employees. Issues related to ethics by organizations are often narrowed down to the formulation of ethical codes. Orange Poland company approaches the problem even wider, by trying to make employees more sensitive to the standards of conduct. It implements the training "Ethics in Orange - do you know how to act?" in which employees are familiarized with the principles of ethics in the following areas: relationships with customers, suppliers, associates sensitizing to conflicts of interest and problems arising from the

usage of information systems and functioning in networks. ING Silesian Bank also draws attention to the risk arising from the usage of modern technologies, builds diverse internal communication through which employees' awareness of emerging threats is raised. Then, SumiRiko Poland focuses on providing equal chances for employees in the organization and counteracting the discrimination in a workplace. It happens by means of special meetings, lectures and trainings aimed at increasing the employees' knowledge in this area.

Processes of communication are realized not only inside the organization but also outside of it. In case of work it is mainly about how the company creates its outside image as an employer. It is called an employer branding (EB) (Kozłowski, 2012).

And, the inside EB focuses on company's employees and its main intention is to rise the employees' effectiveness then outside EB is addressed to candidates potentially interested in working in a company. Among the tools allowing to implement inside EB, one can indicate initiatives in the area of: improving internal communication, creating career paths, training and development, employee evaluations, employee satisfaction and employee motivation, salary and non-wage motivators, integrating and building common systems values. All of this actions are part of CSR. The outside EB targets two kinds of activities on the image and recruitment level. While the image-building activities, which are significantly fostered by all CSR initiatives, are targeted at a wide group of diverse audiences, recruitment activities are addressed to specific groups of candidates in order to persuade them to apply for a selected position. (Macnar, 2016, pp. 32-35; Węgrzyn, 2016, pp. 32-35).

For many companies the opportunity to show the company from the inside and the help with preparation for the process of recruitment and selection are very important. But, in the field of promotion of recruitment activities most organizations currently implement projects using modern technologies, with particular emphasis on social media. Capgemini Polska organizes "Open days for language students", which encourage people to apply for work in the company. Candidates have the opportunity to take advantage of a variety of training relating to future professional tasks as well as consulting their CV or passing the initial interview. The course of events connected with these days is reported in social media what significantly increase the power of message. What is more, the company organized in three cities what is called mobile work stop within which recruiters presented the profile of the company's activity and job offers to the interested passers-by. Similarly, Promedica Care launched the "mobile recruitment" initiative, during which the recruitment bus visited small towns, where everyone interested could get acquainted with the employment conditions and the characteristics of the profession. A specific form of image and recruitment's campaign promotion is an internship program organized by Pelion. Thanks to such internships, the organization has a chance to verify the candidate in terms of its suitability, while the candidates' themselves have the opportunity to get to know the company and adapt to new conditions. A process of social and professional adaptation became the gist of the project realized by BEST company which focuses on new basic employees and managers. As a part of the organized training, the newly hired employees were presented not only with professional aspects of their work, but also

ethical principles were given and the possibilities of development paths and forms of support offered by the company were indicated. In turn, in the LOTOS Group new employees receive help in the form of: a supervisor help in the implementation of tasks and functioning in the company, a series of trainings, a series of formation materials or visit to various organizational units to learn about the specifics of the company. The same applies to Volkswagen Poznań.

Recently, it is observed that in many organizations the approach that organizations that owns highly involved employees can change to a much greater extent and faster than those in which the level of involvement is low. Employees' involvement is treated as a source of a competition's advantage which leads to better financial results. It is then, a very desirable state because it is connected with an active employees' participation in the life of a company, their attachment, passion, enthusiasm and focused effort and energy. No wonder then, companies start projects in which building employees' involvement is a goal itself and not only an added value (Czarnecka, 2014, pp. 51-61).

The BEST company influences the increase of employees' engagement through the implementation of ventures based on the idea of gamification. Attractive prizes are awarded for: efficiency in action; acting as the guardian of a newly hired employee; employee and competence volunteering; knowledge transfer; innovation; above average commitment, beyond the scope of official duties; help coworkers in the task and health. Gamification is also the basis for programs shaping the involvement organized by the GPEC Group. The company uses a specially prepared gamification platform, in which employees carry out tasks related to, among others, caring for health, developing passions, practicing sport or developing professional skills. Points collected during the competitions employees can exchange on prizes but also a charity organization's support or a possibility to invite the acquaintances for a soccer match to the lodge with catering. Orange Poland company decided to launch the program in the field of an involvement shaping as an element of support for the ongoing change process. The initiative takes the form of a game in which teams of employees carry out various tasks, the subject matter of which is related to strategic areas of the organization's functioning. Players also collect examples of good client practices and look for ideas for new improvement or savings initiatives.

Discussion and conclusions

The theoretical assumptions discussed above and the set of exemplary organizational practices which underlines the subjective way of treating the staff, the importance of the employee's participation in the organization and the tasks they perform, confirm the need for organizations to implement the concept of management based on high employees' involvement. There are three basic rules of this idea. (Pytel, Strzelecka, 2009, p. 320). First of them refers to a fair treatment of all employees, showing them an appropriate respect and including in decision-making processes. Democratization of management, based on open communication, in the light of which employees have the opportunity to speak while making decisions about their

professional life leads to an increase in their acceptance of changes and a feeling of increased job satisfaction.

The second rule is about a human capital which is a source of a knowledge, ideas and it stresses the organization's deal to support an individual development and employees' advancement. These kind of powers are found in employees' behavior because of creating the atmosphere of an integration with the place and working environment along with the feeling of the sense of undertaken tasks. Due to actions like these the organization's human capital is even bigger. The third rule refers to the strong commitment of employees, their participation in making important decisions, especially those that concern the management of their own work, results in the improvement of tasks. For the effectiveness of this concept, both the work itself and the organization must be highly flexible so that the contractor can decide on the best way to accomplish the task.

M. W. Kopertyńska (Kopertyńska, 2008, pp. 210-211) connects the rise of employees' involvement with the usage of appropriate non-financial motivators which she divides on seven groups. The first group of motivators spotlights the importance of expressing appreciation for the employee, among others by: showing trust, giving the employee a sense of uniqueness, passing thanks from satisfied customers, for instance in the form of letters or diplomas, public praise and praise, and expressing appreciation for the employee's knowledge and skills. In the second group of motivators there are actions which goal is to ensure efficient communication. They include: creating an internal communication system, organizing regular information meetings about what is happening in the company, board meetings with selected employees, which discusses the most important problems, needs of changes or issues requiring consolidation. Motivators from the third group concentrate on strengthening employees' participation, among others by: engaging them in decision-making processes, appointing teams involved in problem solving, consulting and setting common goals with employees, delegating decision-making powers, or encouraging active participation in works councils. Subsequent motivators have on purpose the realization of employees' needs connected with shaping the work's conditions. The examples of this actions might be: various organizational habits such as one day of free dress, awarding additional days off from work, individual arrangements as to time or place of work, entering into contracts with additional clauses favorable to the employee, guaranteeing work on the best (most modern) equipment, access to modern IT systems, good organization of workplaces. A succeeding group of motivators concerns the issue of employee improvement implemented through: planning development paths (careers), ensuring independence of the activity, building the brand and the company's reputation, creating effective employee teams, enriching work by, for example, stock rotation and enabling interested employees to participate in training, workshops, etc. Following motivators oscillate around expressing the respect for an employee and it is manifested in: showing understanding of his personal problems; celebrating special events in his life; contact with employees during their long absence in the company, e.g. related to the disease, by sending e-mails or making a telephone calls, what express the interest and providing information on the most

important events in the company. The last group contains the actions aimed at ensuring a good working atmosphere. In this area, among others can be distinguished: not accepting behaviors aimed at dividing within the company, emphasizing belonging to a company with a fixed brand, product quality and prestige, integration of various employee groups, creating job security, or introducing the so-called family day, in which you can invite family employees to visit. The above motivators are basically a part of the corporate social responsibility activities. CSR's concept is about the organizations pursue their own goals also took into account the well-being of their employees, clients or local communities. The broader interpretation of this concept concerns about avoiding situations where profit-oriented individuals treat their own goals in a supreme way, ignoring or even violating the interests of employees or other stakeholders. Nowadays, it is expected from the inside CSR's actions not only to respect the needs but also, for its cause, that it will be possible to achieve additional results in the form of over-standard attitudes and behaviors such as the involvement.

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Part 3

Entrepreneurship and the labor market in a globalized world

COMPARISON OF FEMALE ENTREPRENEURSHIP IN DEVELOPED AND DEVELOPING COUNTRIES

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Abstract: In recent years, female entrepreneurship, which has become widespread in the world, creates a favorable employment opportunity for female and is seen as a source of income for their families. While the work of female as owners of their own work is very old, 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 female seeking to establish their own jobs in the countryside have emerged in general as the stereotypes of female'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 female undertake in rural areas are also of great social importance. There are several national and international incentive schemes for female to be hired or employed in rural areas. The study was planned within the framework of causal comparison model in order to examine the significance of the difference between FEI and GEI 2015 scores of developed countries and developed countries. Finally, it was observed that the developed countries' GEI scores were higher than the developing countries. This finding shows that the importance of developed countries to entrepreneurship is higher and entrepreneurship has a place in the national economy.

Key words: Female Entrepreneurship, developing countries, developed countries

Introduction

The topic of female'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 female 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 female, the nature and variety of business networks, the differences in management styles, the performances of men and female-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, female's entrepreneurship, which has become widespread in the world, creates a favorable employment opportunity for female and is seen as a source of income for their families. While the work of female 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 female 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, female 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 female 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, female 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, female 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 female 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 female 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 female, 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 female in entrepreneurial activities constitutes a significant part of research that addresses the gender factor in

entrepreneurship. Studies in this area have shown that female 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 Female Entrepreneurship" report, it is stated that female 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 female 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 female 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 female'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 female to use these loans is not sufficient (Gurol, 2000). Female 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, female have been given various roles and the fulfillment of these roles has become a task for female. 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, female 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 female entrepreneurs is the difficulty in organizing among entrepreneurial female. Organizing will ensure that entrepreneurial female are informed of each other and support each other in business life. In this context, the aim of the organization is to bring together female 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 female 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 Female 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 customs 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 female come in with their daily lives and their contributions to rural production activities. Especially in developing countries, female are the backbone of rural economies and play an important role in ensuring the prosperity of their families (Kibas, 2005).

Rural female differ according to the traditional structure and the fact that the way of occupation is different from the female in the cities. In rural areas, female 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 female and men farmers in relation to land use and land use are common in rural areas, female 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, female are increasingly burdened in agriculture and inequalities arise in reaching the necessary resources and subsidies (Zanbak, 2008).

The problems that rural female face are one of the issues studied by many researchers. In contemporary rural communities, female often do not have a very active role. Modern agricultural production processes have caused a great deal of work previously done by female to disappear. In addition, female 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 female in agricultural production activities are quite high, the education level of the vast majority is low, as rural female, 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 female is extremely important in terms of consciously participating in production (Driga et al., 2009).

The projects for female 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 female 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 female local career alternatives. This is important for female in rural areas, in particular, to contribute to family budgets, while fulfilling their farm, home and animal-centered duties. Developments in entrepreneurship among rural female 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 female'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 female. However, it is necessary to be aware of the gender system existing in modern societies in order to study female's entrepreneurship in general and female'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 female 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).

Methodology

Research Model

The study was planned within the framework of causal comparison model in order to examine the significance of the difference between FEI and GEI 2015 scores of developed countries and developed countries. A causal comparison is a type of research that does not determine the causes of an existing situation, the variables that affect these causes, or the results of an effect. In experimental studies, independent

and dependent variables are planned by the researcher and changes are observed in the research process and experimental procedures (Büyüköztürk ve ark., 2017).

Research Data

The data of the study consisted of the FEI index scores published by GEDI for 77 countries in 2015 and the GEI scores published by 130 countries. In this data, it was observed that there was no index score for all the undeveloped countries and only 10 countries with FEI score were published. For this reason, undeveloped countries were excluded from the research. From this point of view, there were data from 67 countries including 38 developing and 29 developed. The data were analyzed in two groups as developed and developing countries according to development criteria determined by IMF. The developing countries include Algeria, Argentina, Barbados, Bolivia, Bosnia and Herzegovina, Brazil, Chile, China, Colombia, Costa Rica, Croatia, Ecuador, Egypt, El Salvador, Ghana, Guatemala, Hungary, India, Iran, Jamaica, Macedonia, Malaysia, Mexico, Pakistan, Panama, Peru, Poland, Romania, Russia, Saudi Arabia, South Africa, Thailand, Trinidad and Tobago, Tunisia, Turkey, United Arab Emirates, Uruguay and Venezuela; Austria, Belgium, Denmark, Finland, France, Germany, Greece, Netherlands, Japan, Korea, Latvia, Lithuania, Netherlands, Norway, Netherlands, Sweden, Sweden, Is located in Switzerland, Taiwan, United Kingdom and United States.

Data Analysis

The analysis of the data in the study was conducted by using the Independent Sample T-Test to determine whether the differences between the FEI and GEI mean scores of the countries in developing and developed countries were statistically significant.

Results

In this part of the study, Independent Sample T-Test results are given, which are examined for the differentiation of FEI and GEI scores according to the developmental grouping of the countries.

Table 2. Analysis of the Differences Between FEI Scores in Developing and Developed Countries

Development		n	M	SD	t	sd	P
FEI	Developing Countries	38	37.58	10.55	-8.598	65	.000
	Developed Countries	29	59.74	10.32			

Source: Created by the authors

According to the findings, there is a statistically significant difference between the FEI scores of the developing and developed countries ($t(65) = -8.598, p < .001$).

When the averages are examined, it is determined that the FEI scores in the developed countries are higher than the developing countries.

Table3. Investigation of the Differences Between GEI Scores in Developing and Developed Countries

Development		n	M	SD	t	sd	P
GEI	Developing Countries	38	35.48	10.46	-10.178	65	.000
	Developed Countries	29	62.00	10.70			

Source: Created by the authors

According to the findings, there is a statistically significant difference between the GEI scores of developing and developed countries ($t(65) = -10.178, p < .001$). When the averages are examined, it is determined that GEI scores in developed countries are higher than in developing countries.

Conclusion and Discussion

As a result of the study, it was observed that the developed countries' GEI scores were higher than the developing countries. This finding shows that the importance of developed countries to entrepreneurship is higher and entrepreneurship has a place in the national economy. In other words, when compared to developing countries, entrepreneurship is supported at a reasonable level in developed countries and entrepreneurs have become a part of the country's economy by performing meaningful studies. The number of female entrepreneurs continues to increase in the society. In this process, economic, political and social changes are observed in developing countries (Aidis et al., 2007). In our study, it was determined that the FEI scores were higher than the developing countries. This situation shows that female entrepreneurs' contribution to the economy is significant in addition to giving more importance to female entrepreneurship in developed economies. Ökten (2015) stated in his study on Turkish female entrepreneurs that new initiatives made by female in urban environments with high competition have become disadvantaged. At this point, determining the factors that lead to low female entrepreneurship in developing countries can lead to improvements in this regard. In the literature, Hattab (2012) studies in Middle East and North African countries, although the importance of female in the recent past in these countries was accepted, although female in the Middle East, like female in many parts of the world, education, economic participation and family roles. stated that they faced inequality and restrictive practices. As a result, despite the increase in the level of support given to female entrepreneurship in some developing countries, it is seen that the difficulties faced by female in terms of incentive, social context and labor market are not exceeded enough. This situation explains the low female entrepreneurship index in developing economies.

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IDENTIFYING FACTORS AFFECTING THE BUSINESS MODEL OF SMES' IN IRAN

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Abstract: Recognizing the factors affecting a business model's components facilitates managers to monitor the trends and to response to the changes properly and on time. In other words, identifying such factors influencing a business model performance can accelerate the business model innovation processes. This is an exploratory descriptive study to find the critical areas should be managed in management of SMEs' business model in Iran. Therefore, the main objective of this study is to identify factors affect business model of SMEs in Iran. To reach the objective of the study, the wide literature of business model and SMEs was studied, especially those studies are conducted in Iran. The findings revealed that 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 controls, sourcing, supply chain, infrastructure, human resource, organizational structure, innovation, knowledge management. The findings provide valuable guidelines to the SMEs' managers assisting them to effectively innovate their business model.

Keywords: Business model, business model innovation, SMEs

Introduction

Kongolo (2010) believes that a high number of small and medium enterprises (SMEs) in an economy is one of the key features of a flourishing and growing economy. Small and medium-sized enterprises (SMEs) have a considerable contribution to each economy and their number is substantially more than the giant enterprises (Del Brío 2003, p. 941). SMEs assist to boost the economic development in various ways: 1) by increasing the employment, 2) by developing sustainability and innovation in the economy, and 3) by having the more share of employment in compare with the giant companies (Kongolo 2010, p. 2288). 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. Lack of an appropriate business model leads to failure of ventures despite the existence of market opportunities, novel business ideas, adequate resources, and talented entrepreneurs (Morris, Schindehutte, Allen 2005, p. 726).

In the literature, the business model innovation is considered as a representative of a new subject of innovation, in which new forms of cooperation and collaboration and new form of commercialization of the generated value have been explained (Zott, Amit, Massa 2011, p. 1028). On the other hand, there are factors affect business models and are able to shape them. For instance, Calia, Guerrini, and Moura (2007)

show how technological innovation can trigger changes in the company's operational and commercial activities, and subsequently in the business model.

Designing a proper business model is able to guarantee the success of a business as the competition in this era is not on the product, but on the business model. Therefore, CEOs of SMEs are seeking to find the answers of the questions such as:

- What are the main effectors affect the business model selection?
- What are the main factors that affect the business model performance?
- What are the determinant factors that affect the competitiveness ability of the SMEs?

Consequently, the main objective of this study is set to provide a conceptual model assisting organizational decision makers of SMEs in Iran to manage their business models. To do so, a wide literature is studied so as to identify the factors affect the business model of SMEs. Since SMEs have had a great share in entrepreneurship in Iran and they have formed a large number of the 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. In other words, this study wants to, based on the literature, proposes critical areas to be managed in order to manage their business so as for gaining a competitive advantage and facilitating them in business model innovation processes.

Methodology

Qualitative methodologies constitute the perspectives and postulates, that help researchers to produce analysis, replication, repetition. Qualitative methodologies are not only limited to a single research design, but also it provides different epistemological perspectives and pluralism which generate a wide range of approaches and methods (Vaismoradi, Turunen, Bondas, 2013, p. 390). Qualitative methodologies also assist researchers in designing their research, collecting and analyzing data (Vaismoradi, Turunen, Bondas, 2013, p. 390).

This study is also used a qualitative methodology to design the research and collect and analyze the data. 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 are 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. In the next step, the articles were studied in deep 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) and how it could be sustainable (Seroka-Stolka et al. 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 have tried to explain the value creation and value delivery processes and the revenue flows. Basically, all the definitions of business model consider it in terms of the firm's economic model. Here the most focus is on the logic of profit generation and the related decision variables such as revenue sources, pricing methodologies, cost structures (Morris, Schindehutte, Allen 2005, p. 727). Therefore, Stewart and Zhao (2000) define a business mode as “a statement of how a firm will make money and sustain its profit stream over time.”

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 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 should take is designing a new business model as enterprise entrepreneurship is defined as developing new a business model to offer new value and taking advantage of the new opportunities. Rezaeian (2006) defines 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: The 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 the 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. Besides, 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.

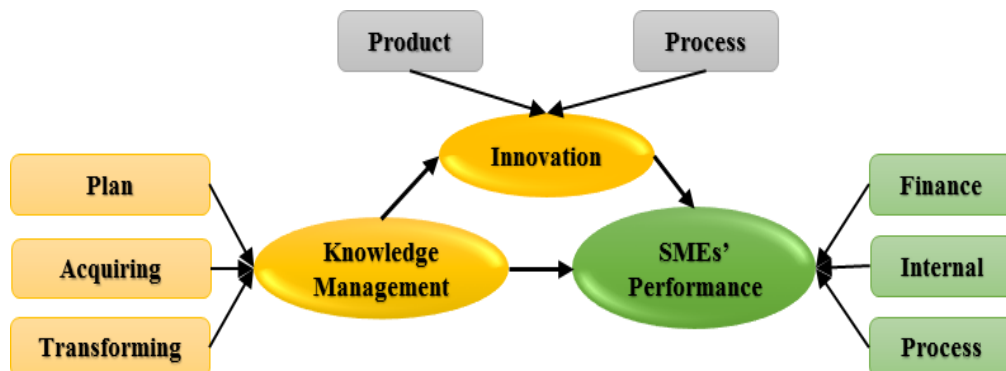


Figure 1. Role of knowledge management and Innovation in overall performance of SMEs

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 above-mentioned research done in Iran, 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* (see on the next page).

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.

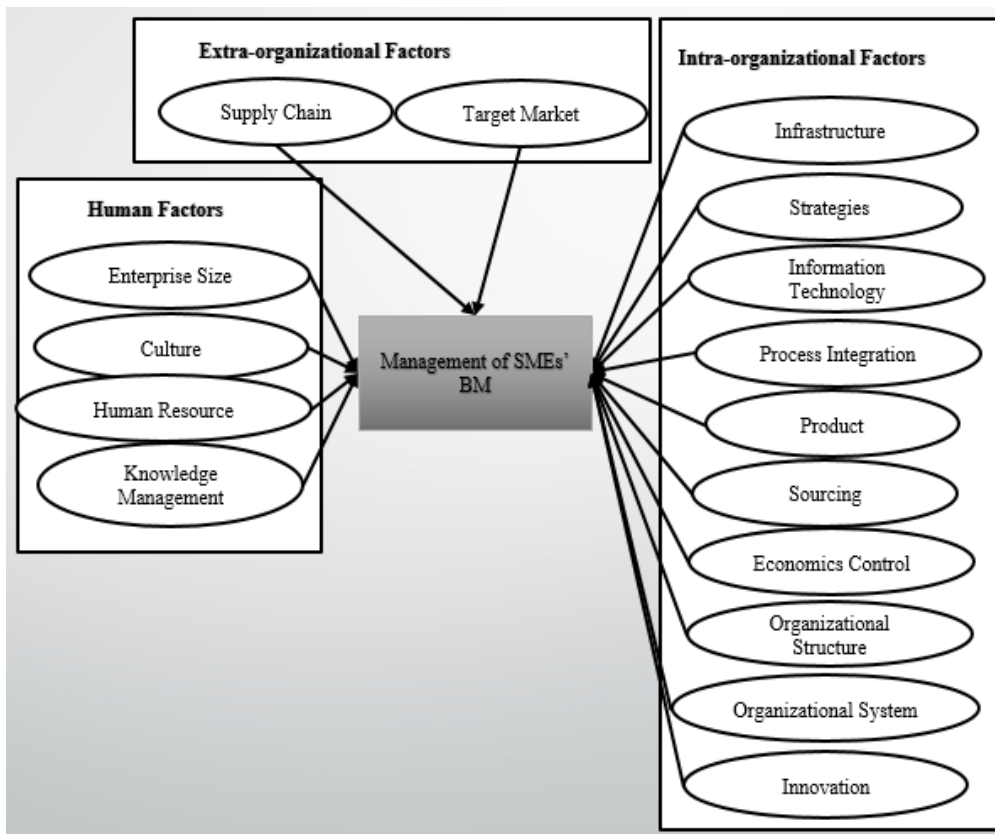


Figure 2. The proposed conceptual model of the study

Source: Own construction

Discussion

Figure 2 summarizes our key findings in a 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 affecting 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.

Conclusions

Business models are tools commercialize new ideas. Addition to the extensive investments the companies have on exploring new ideas, there are always factors that impose the companies to reconsider their business model. Since different business models will yield two different economic outcomes, the companies are actively looking for developing their capability to innovate their business models (Chesbrough 2010, p. 354)

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 innovation in SMEs in the Iranian economic ecology. To answer the research question of this study, a wide literature especially those are done in Iran environment was reviewed so as for finding the factors affect different aspects of a business model. 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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ANALYZING UNEMPLOYMENT BY EDUCATIONAL ATTAINMENT

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Abstract: Our paper analyses the issue of unemployment with its definitions and reasons behind by means of document analysis. The topic of 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 expanded education 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 a 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).

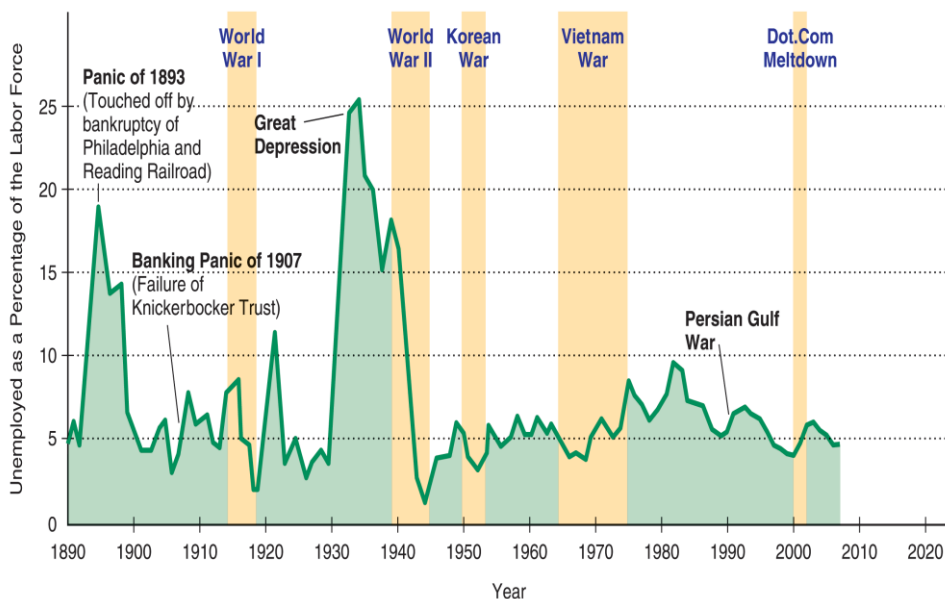


Figure 1. The unemployment rate in the United States

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.

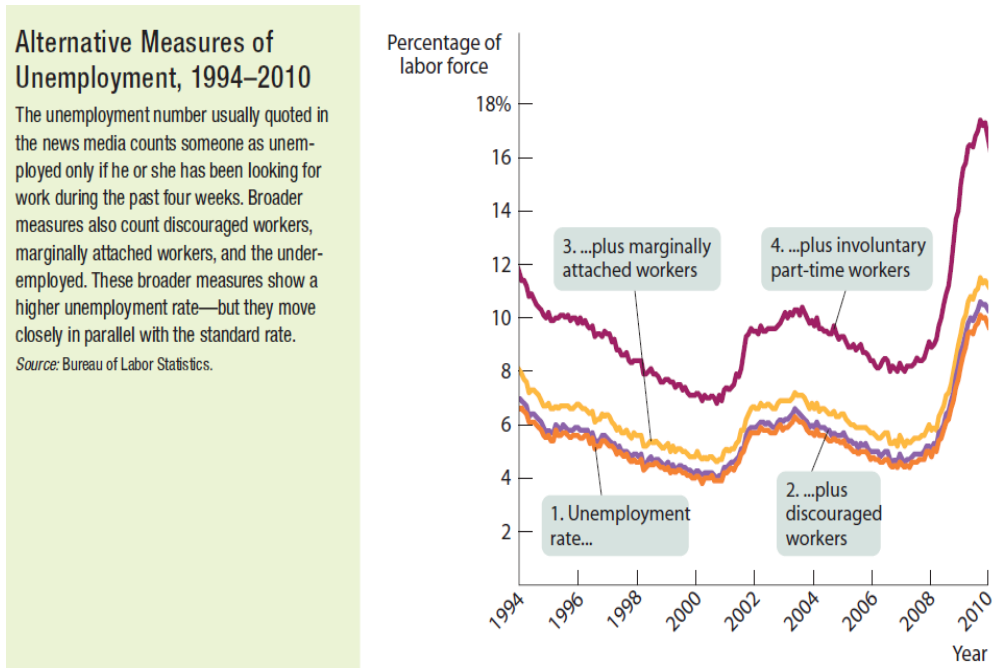


Figure 2. Alternative measures of unemployment

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.

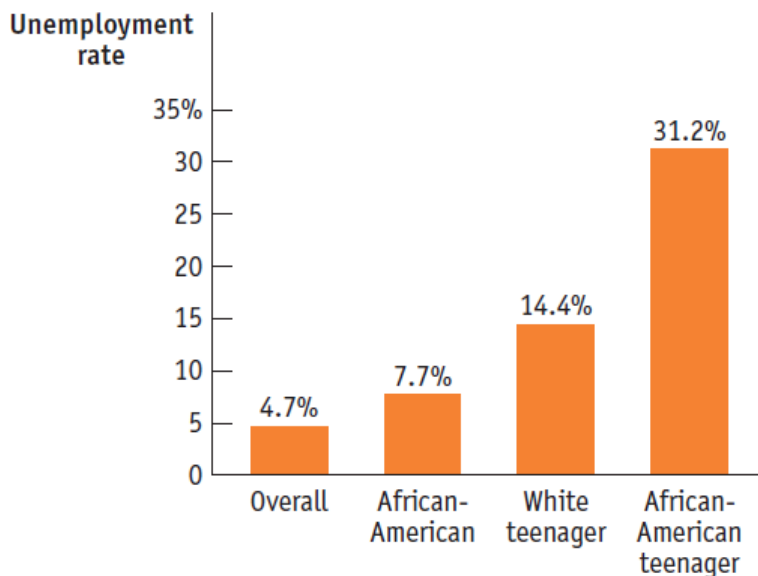


Figure 3. Unemployment rates of different groups

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).

Frictional Unemployment

There is an unending flow of people into and out of the labor force as people move through the stages of life—from being in school to finding a job, to working, perhaps to becoming unhappy with a job and looking for a new one, and finally, to retiring from full-time work. There is also an unending process of job creation and job destruction as new firms are born, firms expand or contract, and some firms fail and go out of business. The flows into and out of the labor force and the processes of job creation and job destruction create the need for people to search for jobs and for businesses to search for workers. Businesses don't usually hire the first person who applies for a job, and unemployed people don't usually take the first job that comes their way. Instead, both firms and workers spend time searching for what they believe will be the best available match. By this process of search, people can match their own skills and interests with the available jobs and find a satisfying job and a good income.

The unemployment that arises from the normal labor turnover we've just described—from people entering and leaving the labor force and from the ongoing creation and destruction of jobs—is called frictional unemployment. Frictional unemployment is a permanent and healthy phenomenon in a dynamic, growing economy.

Structural unemployment

The unemployment that arises when changes in technology or international competition change the skills needed to perform jobs or change the locations of jobs is called structural unemployment. Structural unemployment usually lasts longer than frictional unemployment because workers must retrain and possibly relocate to find a job. When a steel plant in Gary, Indiana, is automated, some jobs in that city disappear. Meanwhile, new jobs for security guards, retail clerks, and life-insurance salespeople are created in Chicago and Indianapolis. The unemployed former steelworkers remain unemployed for several months until they move, retrain, and get one of these jobs. Structural unemployment is painful, especially for older workers for whom the best available option might be to retire early or take a lower-skilled, lower paying job (Parkin 2012).

Cyclical Unemployment

The higher than normal unemployment at a business cycle trough and the lower than normal unemployment at a business cycle peak is called cyclical unemployment. A worker who is laid off because the economy is in a recession and who gets rehired some months later when the expansion begins has experienced cyclical unemployment (Parkin 2012).

Having looked at unemployment, let's turn to wage determination, and to the relation between wages and unemployment. Wages are set in many ways. Sometimes they are set by collective bargaining, that is, bargaining between firms and unions. There are also large differences across countries. Collective bargaining plays an important role in Japan and in most European countries. Negotiations may take place at the firm level, at the industry level, or at the national level. Sometimes contract agreements apply only to firms that have signed the agreement. Sometimes they are automatically extended to all firms and all workers in the sector or the economy. Although institutional differences influence wage determination, there are common forces at work in all countries. Two sets of facts stand out. Workers are typically paid a wage that exceeds their reservation wage, which is the wage that would make them indifferent between working or being unemployed. In other words, most workers are paid a high enough wage that they prefer being employed to being unemployed. Wages typically depend on labor-market conditions. The lower the unemployment rate, the higher the wages (Blanchard 2012).

Real-Wage Rigidity and Structural Unemployment

A second reason for unemployment is wage rigidity—the failure of wages to adjust to a level at which labor supply equals labor demand. In the equilibrium model of the labor market, the real wage adjusts to equilibrate labor supply and labor demand. Yet wages are not always flexible. Sometimes the real wage is stuck above the market-clearing level. Figure 4 shows why wage rigidity leads to unemployment. When the real wage is above the level that equilibrates supply and demand, the quantity of labor supplied exceeds the quantity demanded. Firms must in some way ration the scarce jobs among workers. Real-wage rigidity reduces the rate of job finding and raises the level of unemployment.

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 thorough 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.

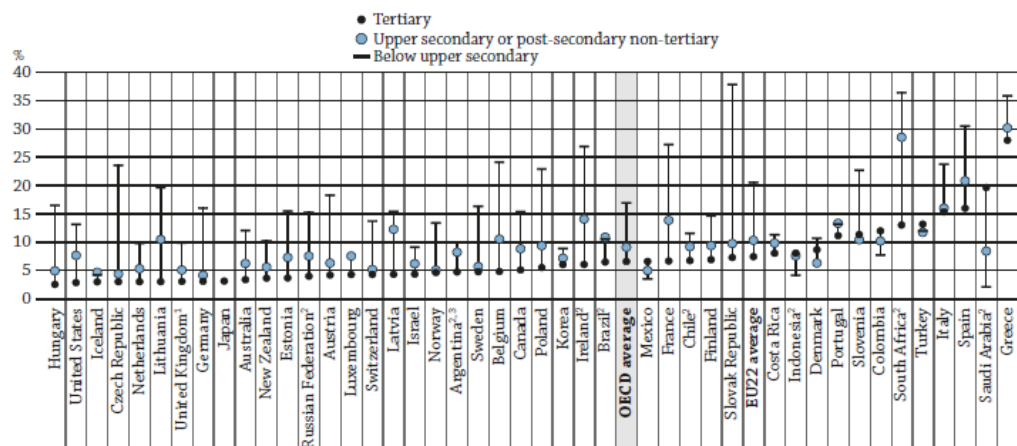


Figure 4. Unemployment rates of the 25-35 year-old by educational attainment (2016)

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.

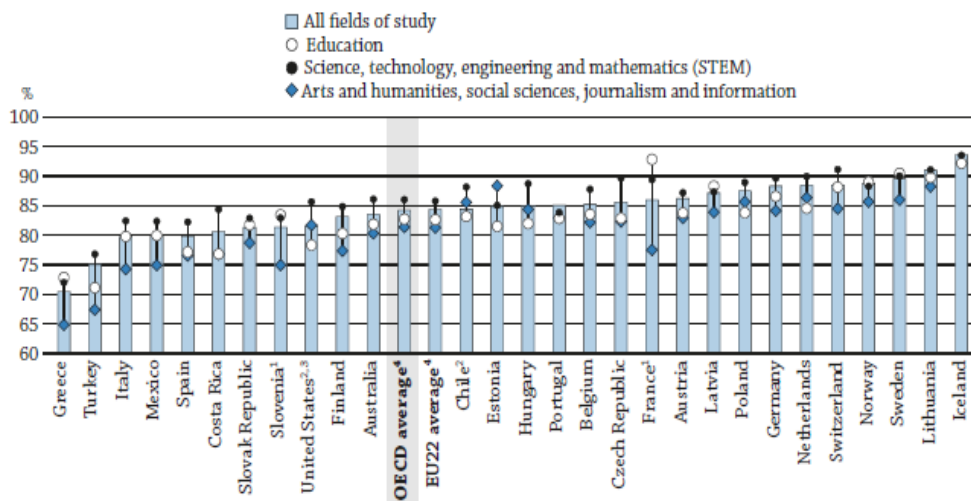


Figure 5. Employment rates of tertiary-educated 25-64 year-olds by field of study, 2016

Source: OECD 2016, 2017

Summary

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 ROLE OF PUBLIC-PRIVATE PARTNERSHIPS AND PUBLIC EXPENDITURES IN EDUCATION

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Abstract: Our paper presents public-private partnerships (PPPs) as the example of collaboration between the public and the private sector 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 assure better quality. Opinions on PPP differ. Our paper presents the views of those who are for and those who are against them by using document 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 differ again, 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.

The definition of PPPs in the international practice, as well as in recent EU policy documents, encompasses a variety of long-term contractual arrangements involving the private sector in the construction and management of public sector assets and in the provision of related services and involving some payment-for-results provisions. There is no widely recognized definition of PPPs in international organizations and countries (Table 1).

Table 1. The definitions of PPP

SOURCE	DEFINITION
European Commission	PPPs are forms of cooperation between public authorities and the private sector that aim to modernise the delivery of infrastructure and strategic public services.
CPR	PPPs means forms of cooperation between public bodies and the private sector , which aim to improve the delivery of investments in infrastructure projects or other types of operations, delivering public services through risk sharing, pooling of private sector expertise or additional sources of capital .
EUROSTAT	The term PPPs is widely used for many different types of long-term contracts between government and corporations for the provision of public assets . In PPPs, government agrees to buy services from a nongovernment unit (a partner) over a long period of time, resulting from the use of specific “dedicated assets”, which the non-government unit builds to supply the service . The asset is usually used for the provision of public services, such as in the domain of health (hospitals), education (schools and universities), and public security (prisons) or in the context of transport and communication structures.
EPEC	A long-term contract between a public contracting authority (..) and a private sector company (...) based on the procurement of services, not assets; The transfer of certain project risks to the private sector, notably with regard to designing, building, operating and/or financing the project; A focus on the specification of project outputs rather than project inputs, taking account of the whole life cycle implications for the project; The application of private financing (..) to underpin the risks transferred to the private sector; Payments to the private sector which reflect the services delivered.
OECD	An agreement between the government and one or more private partners (which may include the operators and the financiers) according to which the private partners deliver the service in such a manner that the service delivery objectives of the government are aligned with the profit objectives of the private partners and where the effectiveness of the alignment depends on a sufficient transfer of risk to the private partners .

World Bank	A long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance.
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Source: Carbonaro et al, 2017

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.

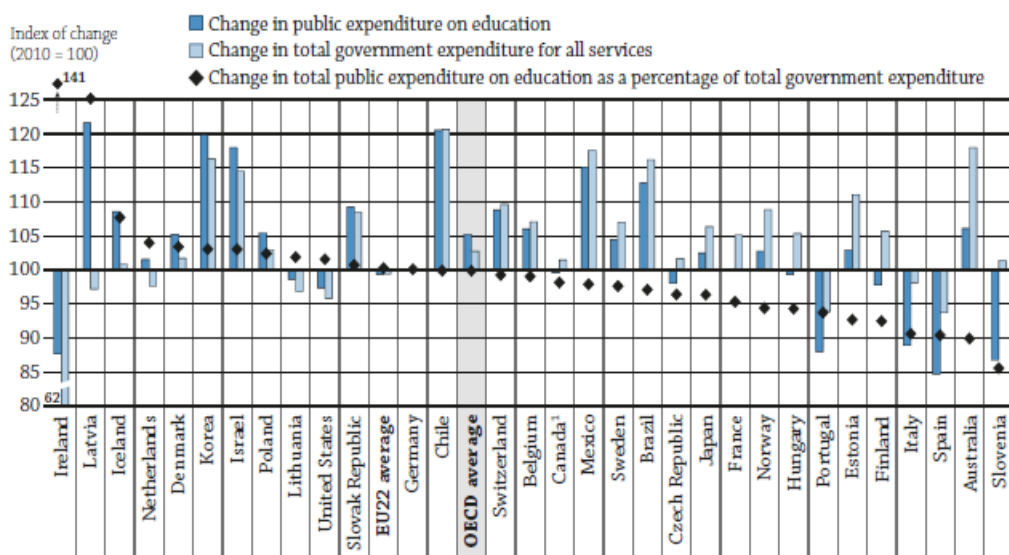


Figure 1. Change in total public expenditure on education as a share of total government expenditure between 2010 and 2014

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.

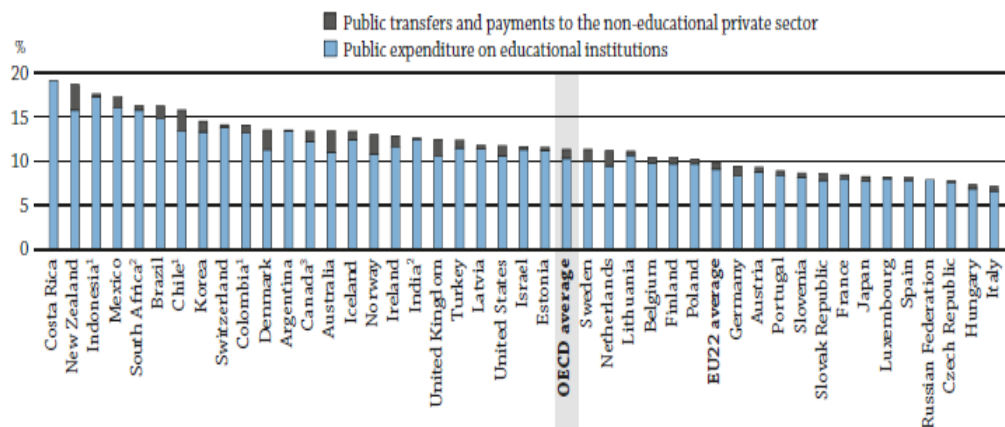


Figure 2 Composition of total public expenditure on education as a percentage of total government expenditure 2014

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.

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).

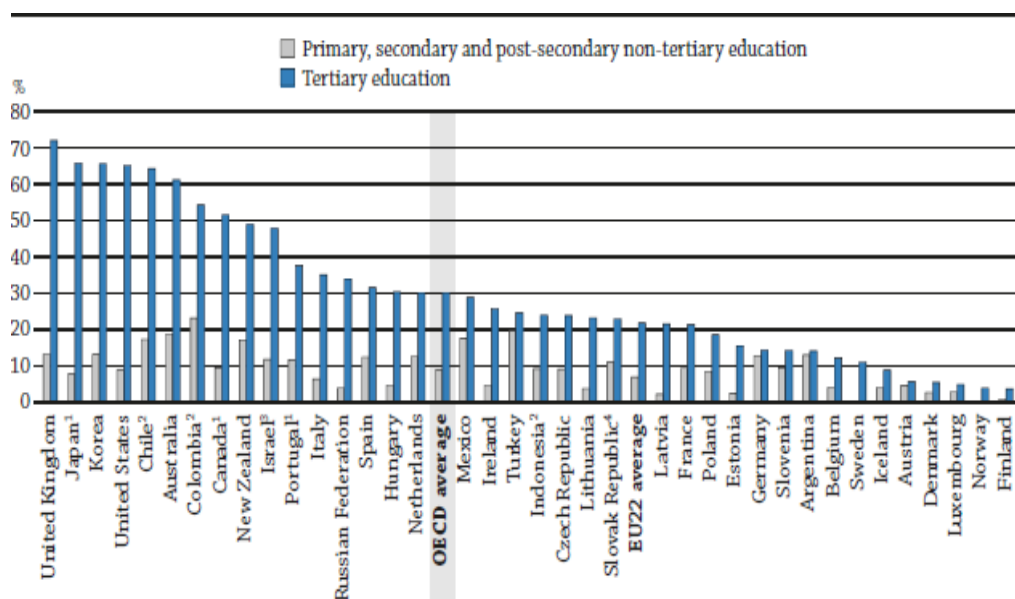


Figure 3 Share of private expenditure on educational institutions 2014

Source: OECD, 2017

Summary

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 levels 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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DIAGNOSING AND IMPROVING HEALTH SAFETY CULTURE

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Abstract: The aim of the article is to present the subject matter that deals with issues related to understanding the concept of health safety culture and its diagnosis and improvement. At the outset, it was emphasized that health, health safety and health safety culture are among the most important elements of the broadly understood category of safety, because health is the basic value in the lives of individuals and societies. The understanding of the concept of health safety, factors and determinants conditioning them have been briefly explained. In the further part, the issues defining the concept of health safety culture and its components were discussed, in the individual and social dimension. A hypothesis has been put forward that: development, technological progress in the field of medicine throughout history, new scientific discoveries in particular epochs, progress in remedial medicine, improving the efficiency and effectiveness of treatment of patients (safety of treatment), practical elimination of epidemics and pandemics, increase in socio-economic status societies, improving working conditions, and changes and reforms implemented in the organization and in the functioning of health care, affect the improvement of health condition, health safety, as well as the increase in the level of health safety culture of individuals and wider communities. The final part of the article lists conditions and factors that have a significant impact on the health of individuals and the society, and thus on the sense of health safety of the population and improvement of the health safety culture of the population. Thus, the earlier hypothesis was proved right.

Keywords: health, health safety, health safety culture, health care sector, healthcare facility, medical staff, patient

Introduction

Health safety is one of the key areas of human life. It is worth emphasizing that safety is mentioned among the basic functions of the state and is considered a public good, which is a premise for the intervention of public authorities.

The concept of health safety is very broad – it covers important factors affecting the health of the population. Their cooperation is a determinant of the process of obtaining health effects on a social scale. It corresponds to the subjective sense of threat that patients and their families encounter in a disease situation, and is also closely related to accessibility issues in the area that satisfies health needs. It is possible to precisely list institutions and regulations and define the features, goals and results of policies that make up the health safety subsystem. One of the important tasks of health safety is proper provision of health protection to a society that is able to effectively create material and cultural goods. Therefore, health is of significant economic importance in the context of socio-economic development.

The conditions in which we live – among others: place of residence, location, type of house, pollution of area are not without significance for maintain good health and health safety. Air, water, food contaminants caused by chemical substances, biological

and physical factors have a negative impact on our health. These threats may be of natural origin, although they are more and more often caused by human activity. The degree of threat to health through environmental pollution is the resultant of many factors. It depends not only on the degree of toxicity of the substance to which we are exposed, but also on the dose, time of exposure, ability to accumulate, genetic predisposition, period of life (from intrauterine to old age), health status, including the mental condition. In recent years, the importance of the so-called *endocrine-disrupting chemicals*, that is substances that interfere with internal secretion, is growing. The result of their action are disorders of hormonal changes, which in effect may be associated with the disorder of homeostasis, reproductive system dysfunction and disorders of normal development and/or human behaviour. These substances include, among others, natural substances (e.g. phytoestrogens), pesticides, fungicides, substances used for the production of plastics and plasticisers (e.g. bisphenol A, phthalates), and other chemicals (e.g. polychlorinated biphenyls) and heavy metals (e.g. cadmium, lead, mercury).

It should also be emphasized that health safety is one of the most important elements of national security, because health is the basic value in the lives of individuals and societies. In turn, ensuring health safety is one of the basic objectives of any health care system, which is implemented through various institutions related to health protection, which also requires collective activity, not just individual.

The information necessary to write this study, in addition to the referenced literature, have been gathered thanks to the *triangulation of research methods* (methodological triangulation). In this case, the selected methods were complementary and allowed to show a wider aspect of the issues examined. Data and information were collected using a greater number of qualitative methods, i.e.: implicit and uncontrolled observations, focused interviews, in-depth individual anthropological interviews that are non-standardized and unstructured interviews, and desk research (in particular secondary source analysis). Due to my many years of experience in managing health care facilities, it was possible to apply the theory of action research, created by Kurt Z. Lewin. The essence of action research is to combine the role of the researcher and the practice as well as moving from practical activities to theoretical generalization with the participation of the organization's members. Such analysed may have critical, emancipatory and reflective potential, the aim of which is to improve the quality of operations, the results obtained and improve social processes. Using qualitative methods, I researched "things" in their natural environment, wanting to get an answer to the question "how" and "why" a given phenomenon occurs, trying to give meaning or interpret deeply hidden motives of social actors taking part in various social interactions in the health sector. Such behaviour is in line with the *methodology of the well-grounded theory* by prominent American sociologists Anselm L. Strauss and Barney Glaser, which is based on the assumption that the social reality is best understood by the actors involved, in this case, the employees of health institutions and organs creating these entities. Thanks to this, it was possible to identify specific behaviours sets of norms and values, showing patterns of thinking, conduct, habits, rules of action, used in case when in-depth information is needed.

Understanding the concept of health safety

Health safety is an interdisciplinary concept and depends both on internal factors as well as on exogenous determinants, and in particular, the quality of health policy, the determinants of which are, among others: socio-cultural factors, demographic factors and the quality of legal solutions. The multitude of definitions of the concept of health safety is related to the fact that representatives of particular fields of science perceive and describe this concept in the light of knowledge and terminology in the field of their discipline. In addition, the multiplicity of these definitions and approaches leads to several conclusions, including the fact that health safety has a direct impact on other types of safety. Subsequent research approaches indicate that safety should be treated as a *state* or as a *process*. The state, or something present, While the process is a phenomenon variable in time.

The concept of health safety is very broad – it covers important factors affecting the health of the population. In other words, the human health safety, and of broader social groups, may depend equally on the economic and social system of the state, environmental factors, genetic factors, demographic changes, level of education, lifestyle, social status, cultural circle, level of development of new technology, as well as dysfunctions of the public health care system. Especially the latter significantly reduce the level of health safety of people and social groups, and this state of affairs has a negative impact on other subject areas of safety, such as: economic and political safety, public and military safety, and even information security, which will play an increasingly important role in the information civilization and civilization of knowledge.

Health safety has become a strategic priority and is expressed through the following factors:

- *demographic changes* – the aging process of societies, affecting the change in the structure of diseases, increases the costs of health protection;
- *environmental conditions* – increase the sphere of social inequalities and the movement of entire population groups;
- *development of new technologies* – revolutionize diagnostic and therapeutic processes.

In turn, the basic determinants of health safety and conditioning stimulators are:

- political and legal determinants (among others the changes in the health care system of a political and legal nature);
- socio-economic determinants (including the level of socio-economic development of the state, the size of gross domestic product, the level of financing of health services);
- organizational and personnel determinants (including the state of health care resources, both medical facilities, as well as the number of medical personnel);
- information determinants and related to health promotion (among others by increasing the information literacy of the population in the field of health and the effectiveness of health policy aimed at increasing the level of health safety).

So, health safety, is (...) “meeting health and healthcare needs, ensuring minimum protection against diseases and unhealthy lifestyle, creating and guaranteeing proper health conditions, i.e. protecting citizens against health threats regardless of age, sex, place of residence, income and wealth. It corresponds to the subjective feeling of danger that patients and their families encounter in a situation of illness; it is also closely related to the issue of access to health care for patients on an equal basis. Access to the health care system implies, therefore, the level of health safety” (Kromołowski, 2017, p. 76).

The level of health safety is a derivative of the process of access to health services. Włodzimierz Cezary Włodarczyk believes that access to health services is interpreted as: reachability, spatial (geographical) accessibility, organizational availability, cost (economic) availability and acceptability (Włodarczyk, 1996). In theory, *acceptability* is treated as a relation between the size and structure of resources at the disposal of the system and the size of health needs of a particular population, the number of medical workers in specific categories (doctors, nurses) and infrastructure units (hospital beds, apparatus units) per number population of the area. It is the relationship between the spatial distribution of resources and the territorial distribution of people who are to benefit from benefits. The basis for the assessment of this aspect of accessibility is the distance between the place where the person is to receive the benefit and the place where the benefit may be provided. In addition to the distance, the possibility of movement should also be taken into account, so communication conditions, ease of using the means of transport and the cost of covering the distance to the healthcare facility. In practice, the goals of this group are defined as the number of minutes within which it is possible to reach a specific facility, the degree of adjustment of the organizational conditions for sharing benefits and the practical possibilities of using the applied solutions by the patients. The level of the relationship between the expectations of the patient including technical, cultural and psychological aspects determines the fulfilment of pro-health needs in the contact with a specific health care provider. This applies to the level of knowledge and professional proficiency of the doctor and other health professionals perceived by the patients – see more (Włodarczyk 1996).

Also, health safety can be defined through the prism of health threats, but also challenges and opportunities offered by modern diagnostic procedures, preventive, curative and educational activities. In the context of broad and multifaceted determinants of the modern world, health security becomes not so much a challenge as a requirements for multi-sectoral practical activities and in-depth theoretical analysis.

It should also be remembered that the level of health safety (its increase or decrease) is greatly influenced by the culture of health safety, and in particular its components.

Safety culture – understanding the concept

The safety culture is treated as part of the organization's culture. It applies to all practices used in the organization, which aim is to individually protect the employee and his/her work environment (Gherardi, Niccolini, 2000, p. 7-18).

The definition of safety culture by Marian Cieślarczyk is as follows: (...) "the safety culture is a kind of social matrix, it is a model of basic assumptions, values, standards, rules, symbols and beliefs affecting the way of perceiving challenges, opportunities and/or threats, as well as the manner of perceiving security and thinking about it and the related behaviour and actions (interaction) of [security] entities, in various ways by those »learned« and articulated in the processes of broadly understood education, including in the natural processes of integral integration and external adaptation and in other organizational processes, as we;; as in the process of strengthening the broadly (not only militarily) understood defense, serving the harmonious development of these entities and achieving the broadest understood security for them, to the benefit of themselves, but also the environment" (Cieślarczyk, 2010, p. 210),

Summarizing the considerations of M. Cieślarczyk, the safety culture consists of three basic elements (Cieślarczyk, 2010, p. 210):

- basic norms, values and rules of a specific entity in the context of safety problems;
- the way one entity understands threats, as well as opportunities both in its immediate and further environment in the context of broadly understood security;
- its qualifications, competence, attitudes, behaviours and activities in relation to other entities in its immediate and further environment, which were acquired in the socialization process (especially in the process of education and formal education).

This concept shows that the safety culture manifests in the following three dimensions:

- the first dimension (mental-spiritual pillar) – consists of specific ideas, values and human spirituality;
- the second dimension (organizational and legal pillar) – refers to the social interactions of organizations and legal systems;
- the third dimension (material pillar) – it covers the material aspect of human existence.

Components of these pillars, despite their specificity, also permeate. For example, knowledge that appears as a component of the first pillar is, to a large extent, also an element of the second pillar, having an organizational and legal character as well as innovative and technical character (Piwowarski, 2015, p. 15).

Health safety culture and its components

The safety culture, including health safety, is an expression of the relation of a given community to risk, threats and security, and what values are considered important in this respect, and the level of this safety will be higher, the more efficient

the health care system will be. High health safety culture is related with a high value of health and human life and maintaining the boundary between the necessary risk, which is an inherent element of life and development, and ensuring safety and protection against threats.

Undoubtedly, health policy pursued by the state is a determinant of the level of health safety culture. The state health policy determining the level of health safety, including the level of this culture, is understood as a set of recommendations and directives and specific regulations, as well as organizational and legal solutions shaping the health aspects of individuals and the population.

In this sense, the following factors/components should be included among the priorities of the state health policy that shapes a satisfactory and desirable level of health safety of the population and the culture of that safety (Bober, 2016, p. 39):

- eliminating significant health threats and their consequences by developing health care infrastructure – including long-term care and hospital care – implementing procedures, medical standards in accordance with the rules of economy and effectiveness;
- creation of infrastructures: legal-institutional, organizational, financial and construction-didactic, enabling access of public entities and patients to the latest scientific achievements and medical technology;
- harmonizing health policy with the activities of the sectors co-responsible for shaping the health conditions of local communities by creating conditions and infrastructure serving health-oriented education, contributing to the creation of pro-health behaviours.

Certainly, the following hypothesis is true, that: development, technological progress in the field of medicine throughout history, new scientific discoveries in particular epochs, progress in remedial medicine, improvement of effectiveness and efficiency of treatment of patients (safety of treatment), practical elimination of epidemics and pandemics, increase of socio-economic status of societies, improvement of working conditions, and changes and reforms in the organization and in the functioning of health care, they affect the improvement of health condition, health safety, as well as the increase in the level of health safety culture of individuals and broader communities. Safety of treatment is a very important and more and more obvious aspect of health care functioning. The problem of adverse events in the care of patients is increasingly being raised in mass media. An inappropriate approach to these matters undermines the patients' trust – the foundation of the patient-doctor therapeutic relationship. Therefore, it is necessary to build a culture of conduct in cases of adverse events (including medical errors), by implementing the principles of proper information to patients and their relatives, expressing compassion or apology and granting compensation.

In addition, it should be emphasized that health, as well as health safety of the population (including the health safety culture), in the individual and social dimension, will be even greater when (<http://www.ncbi.nlm.nih.gov/books/NBK20592>):

- a) in the area of public health, more weight will be attributed to health prevention and healthy lifestyle;
- b) in the area of prophylaxis, the most important will be prevention, and mainly diagnostics (because the sooner the disease is diagnosed, the more effective its treatment will be, as well as the more cost-effective);
- c) the coordinator of the construction of the system of mandatory diagnostic tests will be a general practitioner (primary health care), with particular emphasis on children and adolescents;
- d) in the area of organization of the health care system, the role of outpatient specialist care (AOS) will be strengthened by:
 - strengthening the role of a GP (commonly referred to as the “primary care physician” or “family doctor”);
 - limiting queues to specialist offices;
 - gradual “shifting” of some treatment procedures from inpatient to out-patient treatment;
 - in justified cases, the introduction of the possibility of establishing financial consequences for patients who have not resigned from an appointment.
- e) coordinated health care will be introduced, the primary objective of which is to determine the path of treatment of the patient from primary health care, through specialist care or hospital treatment, to rehabilitation and health resort treatment;
- f) there will be a significant improvement in the quality of medical services and an increase in the availability of these services. In order to improve the quality of medical services and the safety of employees and patients of healthcare facilities, a lot has been done so far. The improvement of these services is strictly dependent on factors that can be divided into three categories. The first category are technical solutions, second – conditions and work organization, while the third one – climate and safety culture. The growing interest in the climate of safety in health care is focused on the patient.

In turn, the deterioration of: health status, health safety, as well as the level of health safety culture of individuals and broader community is influenced by, among others (Hughes, Clancy, 2009, pp. 1-4):

- Too small: expenditure on health care, expenditure on communication infrastructure, expenditure on health and safety at work, expenditure on counteracting the effects of climate threats, expenditure on prevention in the field of civilization diseases, expenditure on the development of emergency medical services.
- Environmental factors (environmental degradation through air, water and soil pollution, shrinking forest areas, shrinking green areas in cities and villages, decreasing diversity of species of flora and fauna, climate change, depletion of ozone layer, smog).
- Civilization diseases, climatic and natural hazards, communication hazards, social diseases.

- Staff shortages of medical personnel, mainly doctor and nurses, significantly reduce the standard of medical services provided, and thus reduce the health safety of individuals and broader social groups.
- Medical errors - achieving a safety culture in health care requires deepening knowledge resulting from research on the unfavourable circumstances of errors. It is necessary to develop models of good practice to prevent errors. This action requires the effort of all team members, in which everyone must be responsible for reducing medical errors.
- Lack of a developed model (in many medical facilities) of the patient's safety culture. *The safety culture of a patient treatment* in the organization depends on the whole team, its knowledge, attitudes, views, competences and behaviour patterns. It is very important to establish a safety culture, the main features of which are openness and honesty, and communication is based on mutual trust and the creation of an atmosphere of work environment in which all employees are entitled to make loud statements about errors. The management cannot allow employees to blame each other but develop a data transfer system about events that threaten the safety of patients. There should also be a climate of support for an employee who made a mistake and, above all, implement educational programs including risk management, coping with stress and response skills in risky situations. This report must be without fear of punishment for the persons who reported the incident. It is also necessary to eliminate the myth of excellence (the mistake should never happen) and the myth of punishment punishing the guilty person will increase the safety in the future.

Ending

Health, health safety, health safety culture, in recent years have been acquiring new content, among other things because health is a value in itself, it is the basic value of life for everyone and is a necessary condition for the proper functioning of every community. Therefore, the diagnosis and improvement of the health safety culture, both in the individual and social dimension, is of paramount importance.

To this end, the author believes that the following should be achieved:

- prevention of health effects of environmental pollution;
- introduction of constant observation and control of ordination and consumption of medicines;
- balancing the system in financial terms in accordance with the principle of macro-economic balance: funds raised = production costs = value of benefits used by the patients;
- leading to a greater inclusion of patients into the diagnostic and therapeutic process;
- increasing physical activity of the population;
- improvement of the diet of people and the quality of food and reducing obesity;
- introduction of monitoring and analysis of the use of health services (indicators on hospitalization, time of stationary care, waiting time);

- introducing a rationing system for health services by defining a package of guaranteed services from public funds;
- securing the full access of citizens to services that can be financed from public funds, according to the accepted and adopted criteria, both medically and socially;
- improving the management system and organization of health care facilities at the government and local government level (branch network);
- increasing and optimal use of infrastructure for the needs of health promotion and health education;
- preparing a comprehensive regulation on patient rights and indicating the conditions for their implementation and sanctions in the event of non-compliance;
- creating the basis for analysing the quality assessment of medical services;
- introduction of the principle of preparing and publishing an annual report to the public on the state of the health system and the health condition of the population;
- reducing the number of injuries resulting from accidents and limiting their consequences;
- promotion of mental health and prevention of mental disorders;
- supporting development and health (physical and psychosocial) of children and youth;
- creating conditions for healthy and active life of older people;
- increasing the effectiveness of the prevention of infectious diseases;
- creating conditions for the active life of people with disabilities;
- improving early diagnosis and active care of people with cardiovascular diseases, including cerebral strokes, cancers, respiratory diseases and rheumatic diseases;
- conducting effective prophylaxis combined with the promotion of screening tests, the aim of which is to detect the disease at an early stage and thus reduce mortality among patients, thus reducing unnecessary expenditures on health protection;
- introduction of an obligation to test patient satisfaction in conditions allowing for a free opinion and implementation of reasonable conclusions resulting from these tests to manage the institution;
- creating a system for showing errors in the medical profession;
- developing a motivation system conducive to submission to accreditation processes and obtaining quality certificates;
- improving the quality of health services in terms of effectiveness, safety and social acceptability;
- educating and motivating medical staff to kindly treat patients and their families in order to eliminate the feeling of threat to health safety among healthcare service users.

Without any doubt, the conditions mentioned above have a significant impact on the health of individuals and the society, and thus on the sense of health safety of the population and improvement of the health safety culture of the population.

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