THE IMPACT OF THE COVID-19 PANDEMIC ON THE CAPITAL STRUCTURE AND OTHER FINANCIAL CHARACTERISTICS OF HUNGARIAN HOSPITALITY SMES

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Abstract: The hospitality sector is one of the sectors that has suffered extremely high losses as a result of pandemic COVID-19. The outbreak of the coronavirus and the associated restrictive measures caused a sharp decline in almost all segments of the hospitality sector for much of 2020. As a result, gross value added in the hospitality sector fell by 32% in 2020 compared to the previous year. The uniqueness of our research on the financing of Hungarian micro, small and medium-sized enterprises in this sector and the determination of the optimal debt ratio - covering the period 2015-2021 - is that we examined the lower-level sectors of the hospitality sector taking into account the differences in the size of enterprises and their statistical region (spatial location), and then used the results to conduct a comparative analysis of the trends observed before the pandemic and the changes during the pandemic. We have explored how the evolution of the capital structure has affected the profitability and liquidity of firms, and we have also determined the relationship between profitability and liquidity. We find that there are significant differences in the capital structure of firms classified by size and geographical location, and that the strength and direction of the relationship between capital structure, profitability and liquidity depend on the size and geographical location of the firm.

Key words: capital structure analysis, profitability, business strategy, financing decisions

Introduction, goals

Research dealing with the capital structure examines the factors affecting own capital and foreign capital, as well as the relationships between the performance and market value achieved by the established capital structure. The main questions are aimed at the optimal equity rate, the method of financing investments, and the sequence of financing options. Since the capital structure of enterprises may differ by industry, in order to avoid a distorting effect and to achieve a correct result, it is justified to examine the capital structure and liquidity indicators and their correlations by industry. Accordingly, and due to scope limitations, in my present research, I limited the area on the basis of which I conducted the analysis exclusively to the enterprises operating continuously between 2019-2021, conducting double bookkeeping in the Hungarian and Slovak SME sector, and operating in the Hospitality sector.

The economic shutdown due to epidemic restrictions created a completely different situation compared to previous crises, which could be explained by the functioning of economies in recent decades. Furthermore, one of the most decisive economic factors in connection with COVID-19 was uncertainty, which could be observed to a significant extent in the life of businesses even in the post-pandemic period. (Baker et al, 2020)

Literature review

The financing of the enterprise therefore means the creation of the financial resources necessary to ensure the value-creating process of the enterprise and its operation, thus creating the financing process of the sustainable enterprise. (Pataki, 2003) Improving access to financial services can have a positive

impact on the economy and the SME sector in many areas. It can contribute to economic growth by facilitating the financial activity of businesses, enabling businesses to engage in more sustainable and environmentally friendly business practices, and increasing financial efficiency. (Nasir et al., 2022)

There are different forms of financing. One of the possible aspects of the grouping is where the capital used as a resource comes to the enterprise. According to the source of financing, we distinguish between internal and external, and based on the related rights, own and foreign sources. (Bhide, 1992) Own resources typically mean internal resources that ensure the capital needs of enterprises by using the profit generated during profitable management and by making more intensive use of existing resources (Béza et al., 2013), but they can also be made available to the enterprise from outside the enterprise, for example in the form of a capital increase.

We distinguish three cases of internal financing, which typically use assets previously produced by the company to raise the funds needed for investments. (Retention of profit, Amortization, Asset sale) External funds are funds provided from outside the company, which, based on the fact that they embody property or debt, can also be own and foreign funds, in other words equity and debt funds. (Debt resources, Capital resources)

From the point of view of a business, the most favourable option for obtaining external funds is a commercial loan, because in this case the company is not burdened with the obligation to pay interest until the payment deadline and the stronger the market position of an economic organization, the more it can use this opportunity to obtain funds. (Carter & Van Auken, 2005) Obtaining such funds is not smooth in all cases, especially for enterprises belonging to the SME sector, which generally have limited own funds due to their lack of capital. (Gál, 2013)

The cost of capital can be approached from the side of those who provide the funds and from the side of the company that uses the capital. From the investors' side, the cost of capital is the return they expect for the investment, and from the company's side, it is the price of obtaining the necessary funds. (Pratt – Grabowsi, 2010) In a business, the available funds can come from the owners or creditors. The composition of these sources is called the capital structure, which actually reflects the company's ownership structure (Tripathi, 2019) and is one of the company's capabilities that is key to meeting the needs of various stakeholders. (Yildirim et al., 2018) The capital structure, as the rate of the company's foreign and own funds, gives an answer to the combination of funds behind the financing of the investment in real assets. (Bélyácz, 2009)

Situation picture of the SME sector and the examined sector

The SME sector is the backbone of the European Union's economy. In the European Union, 99 percent of enterprises are made up of the SME sector, they provided job opportunities for nearly two-thirds of the employed and contributed to slightly more than half of the gross added value. These rates have not changed or changed little since the beginning of the 2000s. As a result, economic growth, innovation and job creation also depend on the ability of the SME sector to develop. (Holicza, 2016) The financial resources of SMEs are usually based on the owner's wealth, which greatly limits their growth opportunities. This is also confirmed by the fact that micro-enterprises employ roughly the same number of people as organizations not belonging to the SME sector, which shows that the corporate sector is fragmenting. (Hegedűs, 2019)

The impact of the Covid-19 epidemic was felt in all sectors in 2020, of which tourism and hospitality were among the biggest losers. (Md Billal et al., 2022) This economic sector also lost its foreign and domestic markets with the closure of borders and restrictions on people's movement. The coronavirus epidemic and the related restrictive measures caused a significant decline in almost all areas of the hospitality industry for much of 2020.

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Material and method

During the analysis of the relationship between capital structure and liquidity indicators, I relied on the balance sheet and income statement data of double-entry bookkeeping companies subject to corporate tax, taking into account the territorial location of the companies. The data of the SME sector report for 2019-2021 required for the capital structure analysis was provided by the Crefoport database. The database contains 3526 lines of unique data. The sample was narrowed down exclusively to enterprises in the 56: Hospitality sectors. The majority of the analysed sample is made up of companies that are not required to be audited, so unaudited data is examined, but regardless of this, I primarily assumed that the majority of their activities were based on their main activity and that they kept their books in accordance with national legislation and thus the published reports provide a reliable and true overview. In order to make the data comparable, it was selected from the enterprises operating between 2019-2021 and belonging to the SME sector during the entire period. During the query, state and local government enterprises, social cooperatives, and enterprises with consolidated accounts were excluded. The companies that had zero sales or zero receivables and liabilities, as well as those that did not comply with the mandatory requirements of the Accounting Act in the data of the published report, were also deleted from the data set.

The regulations for accounting reports may contain special regulations for enterprises in the SME sector, therefore, in the case of micro businesses, comparability is only ensured for the main lines of the report. It is not in the interest of businesses to give external stakeholders a fully analyzable picture of their activities, therefore the accounting reports do not contain detailed data for an analysis, they only strive to comply with the mandatory regulations by keeping accounting records containing consolidated data. The accounting data refer to a specific time in the past, so the general indicators or information formed from the reporting data are also historical and static. Monthly or quarterly data are needed to generate dynamic indicators, but such regular data provision is not particularly typical for enterprises in the SME sector.

Table 1: Distribution of the examined enterprises by year and by area

Country * Year Crosstabulation

Count

		2019	2020	2021	Total
Country	HU	882	1009	350	2241
	SK	470	404	411	1285
Total		1352	1413	761	3526

Source: own compilation based on Crefoport database.

According to the territorial grouping, I distinguished the enterprises operating in Hungary and Slovakia, which I took into account in all background calculations of the analysis. The analysis, were also broken down according to levels 2 and 4 of the NACE grouping.

I determined the correlation between capital structure and profitability indicators using correlation analysis. Correlation analysis demonstrates the existence and strength of a linear relationship, and it answers the question of whether there is a relationship between two or more quantitative variables, and if so, how strong it is. The combined change of the indicators is characterized by the Pearson's correlation coefficient, the sign of which is: r.

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Table 2: Range of the indicators included in the analysis

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation
EQR	3526	3,60	-1,48	2,12	,3960	,49697
ROA	3526	1,64	-,88	,75	,0105	,29233
ROS	3526	1,31	-,74	,57	-,0274	,21431
LIK	3526	15,94	-5,40	10,55	2,6311	2,52165
Valid N (listwise)	3526					

Source: own compilation based on Crefoport database.

Table 3: Evaluation of correlation coefficient

Correlation coefficient (r) value	Level of connection
0,00	there is no linear connection
0,00 - 0,20	weak, negligible connection
0,20 - 0,40	sure but weak connection
0,40 - 0,70	medium correlation, significant connection
0,70 - 0,90	high correlation, strong connection
0,90 - 1,00	an extremely strong, dependent connection

Source: Guilford, 1953.

Results

The objective of my research is to determine (using statistical methods), whether there is a significant difference between the capital structure, profitability, and liquidity of the Hungarian and Slovak SME sector. I performed the correlation calculation taking into account the countries and summarized the results in the following tables. When analysing the computed correlation matrix, I focus particularly on those items that are not direct consequences of their mode of formation.

Table 4: Indicators included in the analysis and their calculation methods

Jel	Mutatószám	Számítási mód
EQR	Equity ratio	Equity / Equity and liabilities
ROA	ROA – Return on assets	Profit before tax / Equity and liabilities
ROS	ROS – Return on sales	Profit before tax / Net sales
LIQ	Liquidity ratio	Current assets / Short-term liabilities

Source: own compilation.

Based on Table 5, it can be seen that for both Hungarian and Slovak companies, the equity ratio and both profitability indicators showed a positive correlation every year, which means that it is statistically proven that profitability increases together with the growth of equity. In the case of Hungarian and Slovak companies, the correlation coefficients of the equity ratio and the profitability indicators indicated a significant, sure, but weak connection almost every year. The stronger correlation in the case of Hungarian companies suggests that the change in equity is more likely to be associated with an increase in profitability. When examining the correlation between liabilities and profitability, data with opposite directions but similar strength emerged in the correlation coefficients of both countries, compared to equity.

In terms of liquidity indicators, Hungarian companies have a higher average liquidity rate in the period under review, a difference that is also reflected in the cash rate indicator. At the same time, based on the fact that the return on current assets is generally lower than the return on fixed assets, an excessively high liquidity rate reduces the average return on assets. As a result, the benefit of keeping too large a stock of cash is high due to lost interest income, while too little stock of cash entails the risk

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of insolvency. (Orr, 1974) As a result, high liquidity is generally associated with a decrease in profitability, which is characterized by a negative correlation relationship in the literature. However, in certain service industries where the ratio of fixed assets is low, it may occur that the return-generating capacity of current assets is higher than that of invested assets. In the analysis of liquidity and profitability of such sectors, a positive correlation coefficient appears.

Table 5: Correlation coefficients of equity ratio and profitability indicators

		Correlations						
				ROA			ROS	
Country			2019	2020	2021	2019	2020	2021
HU	EQR	Pearson Correlation	,404	,322	,625	,350	,293	,497
		Sig. (2-tailed)	<,001	<,001	<,001	<,001	<,001	<,001
		N	882	1009	350	882	1009	350
SK	EQR	Pearson Correlation	,270	,245	,274	,284	,194	,371
		Sig. (2-tailed)	<,001	<,001	<,001	<,001	<,001	<,001
		N	470	404	411	470	404	411

Source: own compilation based on Crefoport database.

Based on Table 6, it can be seen that in the case of Hungarian and Slovak companies, the liquidity ratio and both profitability indicators showed a positive correlation every year, which means that profitability increases as the liquidity ratio increases. In the case of Hungarian and Slovak companies, the correlation coefficients of the liquidity ratio and the profitability indicators indicated a significant, sure, but weak connection almost every year. The stronger correlation in the case of Hungarian companies suggests that the change in liquidity is more likely to be associated with an increase in profitability.

Table 6: Correlation coefficients of liquidity ratio and profitability indicators

		Correlations						
				ROA			ROS	
Country			2019	2020	2021	2019	2020	2021
HU	LIQ	Pearson Correlation	,248	,260	,394	,215	,221	,524
		Sig. (2-tailed)	<,001	<,001	<,001	<,001	<,001	<,001
		N	882	1009	350	882	1009	350
SK	LIQ	Pearson Correlation	,226	,211	,240	,248	,172	,273
		Sig. (2-tailed)	<,001	<,001	<,001	<,001	<,001	<,001
		N	470	404	411	470	404	411

Source: own compilation based on Crefoport database.

Summary

The primary motivation for preparing my analysis was the continuation and international expansion of capital structure studies in Hungary. In the course of my research, I examined the capital structure and liquidity of the enterprises operating in the information technology service sector and their territorial connections based on indicators compiled from the reporting data of Hungarian and Slovak enterprises belonging to the SME sector. The main goal of the research is to use statistical methods to determine whether there is a significant difference between the capital structure, profitability and liquidity of enterprises belonging to the Hungarian and Slovak SME sector.

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I started the research by studying and processing the literature related to the topic, then I briefly presented the characteristics and main statistical data of the SME sector and the Hospitality sector in the European Union, as well as defined the limitations of the results of the analysis. After narrowing down the database, I determined the indicators included in the study from the set of data, which I further narrowed down using the truncation method in order to ensure that the data were not distorted. I processed the final data set with descriptive statistical data analysis and correlation analysis. Based on the descriptive statistical data, it was observed that compared to Slovak enterprises, Hungarian enterprises have higher equity capital, lower liabilities and better liquidity, but at the same time, the share of their long-term liabilities was minimal, similar to Slovak enterprises.In the case of Hungarian and Slovak companies, the correlation coefficients of the equity ratio and the profitability indicators indicated a significant, sure, but weak connection almost every year. The stronger correlation in the case of Hungarian companies suggests that the change in equity is more likely to be associated with an increase in profitability. In the case of Hungarian and Slovak companies, the correlation coefficients of the liquidity ratio and the profitability indicators indicated a significant, sure, but weak connection almost every year. The stronger correlation in the case of Hungarian companies suggests that the change in liquidity is more likely to be associated with an increase in profitability. A weak correlation indicates that other micro and macroeconomic factors greatly influence the relationship between the growth of equity, likvidity and profitability.

In my background calculations, there were no outstanding differences in the results even in the lower-level grouping of the Hospitality sector, however, I did not represent these data due to scope limitations. Based on the results of the correlation analysis, it can be stated that it can also be verified statistically that significant differences can be observed in the capital structure and liquidity of the examined Hungarian and Slovak enterprises.

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