

Chapter 5

Impact of COVID-19 Pandemic on Financial Health of SMEs



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Abstract European governments, in order to limit the spread of the COVID-19 pandemic, adopted restrictive measures in the early 2020. These measures were aimed at restricting business operations and the free movement of individuals. These restrictions significantly worsened business situation of thousands of small- and medium-sized enterprises. Compared to large companies, small- and medium-sized enterprises generally possess limited human and financial capital and it is more difficult for them to survive longer periods of lockdown or partial lockdown with limited or no income. The aim of this manuscript is to analyse the impact of the COVID-19 pandemic on the financial health of small- and medium-sized enterprises in Slovakia. Analysis was performed on a sample of 109,340 small- and medium-sized enterprises from Slovakia by comparison of selected financial indicators for the pre-COVID year 2019 and the COVID year 2020 on a sector level. The identification of statistically significant differences was performed by the Kruskal–Wallis test (nonparametric ANOVA). Results indicate that the most COVID-affected sectors were construction, food processing industry, law, consulting and accounting, retail, services and tourism and gastronomy. Impact of COVID restrictions was observed by worsened indicators of debt and profitability, while the liquidity indicators did not worsen compared to the 2019 levels.

Keywords COVID-19 · Pandemic · SMEs · Financial health · Bankruptcy

5.1 Introduction

As the COVID-19 started spreading across Europe at the beginning of 2020, European countries adopted protective measures and professional circles began to discuss the start of currently ongoing financial crisis. Prevention of free individual

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63

movement, cancellation of flights and transportation links among countries, closure of production halls or reduction of business hours of shops all directly affected small- and medium-sized enterprises (SMEs) across Europe.

Small- and medium-sized enterprises are defined, as per the European Union recommendation 2003/361, as companies with less than 250 employees, and annual sales turnover below 50 million Euro or total asset value below 43 million Euro as reported on company balance sheet. Unlike large enterprises or multi-national corporations, SMEs might not have adequate human and financial capital to face long-term shortage of employees due to health reasons, decrease in sales or shortages of supply and material flow.

During the first COVID wave, which dates in Slovakia from the end of March to May/June 2020, Slovakia experienced one of the worst economic downturns in the European Union. Eurostat (2020) states that GDP of Slovakia decreased by more than 5%. This decrease was caused by the production shutdown of all four major car manufacturers (Volkswagen Slovakia, Groupe PSA Slovakia, Kia Motors Slovakia and Jaguar Land Rover Slovakia) and followed by restriction of related supply chain, as well as by situation on foreign markets, on which Slovak industry is highly dependent (Bečka, 2020). According to the Statistical Office of the Slovak Republic (2020), industrial production decreased by 7.3% year on year in the first quarter of 2020, while in April 2020 industrial production reached an all-time low, experiencing a record year-on-year decline of 42%. According to the Slovak Business Agency (SBA) (2020), the automotive industry production recorded only 21.1% of the volume compared to the same month of the previous year. Due to the introduced lockdown and limited human movement, sales revenues decreased also in other sectors, such as accommodation services and gastronomy. Revenues in accommodation services recorded a year-on-year decline of more than 80% in April and May 2020. The decline in sales of gastronomy services companies was 42.10% in April 2020 and 32.70% in May 2020 (National Bank of Slovakia, 2021).

During the second pandemic wave (October to December 2020), the partial lockdown no longer affected industrial operations and these sectors continued to operate. This continual operation contributed to a modest 2.0% increase of GDP during the fourth 2020 quarter, leading to overall 2.7% GDP decline in Slovakia in 2020 (National Bank of Slovakia, 2020). The second COVID wave and its restrictive measures impacted mainly services and retail sector as the movement of individuals was restricted and curfew was implemented. Decline in sales revenues of these two sectors was higher than during the first wave. At the end of the fourth quarter of 2020, this decline was 90% in accommodation services sector and 70% in catering services (National Bank of Slovakia, 2021).

According to the SBA, the most affected sectors by restrictive measures, such as accommodation and catering, are mainly created by small- and medium-sized enterprises. SMEs operating in these two sectors represent up 8.9% of the total number of SMEs in Slovakia (Slovak Business Agency, 2020). According to a survey conducted by the Entrepreneurs Association of Slovakia on a sample of 1109 respondents from SMEs, 25% of entrepreneurs experienced a decline in sales revenues of 31% to 50%, followed by 20% of entrepreneurs experiencing 51%

to 80% decline in revenues, and 30% of small- and medium-sized enterprises experienced revenue decline by more than 80% (Entrepreneurs Association of Slovakia, 2020).

The aim of this manuscript is to analyse the impact of the COVID-19 pandemic on financial health of SMEs in Slovakia. This analysis was conducted on a sample of 109,340 small- and medium-sized enterprises from Slovakia whose financial statements were already available in May 2021. Financial position of Slovak SMEs was tested by the Kruskal–Wallis test (nonparametric ANOVA). Results of the analysis confirm the assumption that the most affected sectors include accommodation and gastronomy services and retail. This finding can also be of benefit to authors in other small open economies (e.g. other countries in Central and Eastern Europe), for which the COVID-19 pandemic had a similar course and impact.

This manuscript is divided into six sections. The first section is the introduction, and the second section includes literature review. Methodology is included in the third section, and the fourth section includes the results of analysis. The last section describes concluding remarks of this manuscript.

5.2 Literature Review

Impact of the COVID-19 pandemic on company financial health can be analysed from several perspectives. During the first wave (Spring 2020), authors such as Sergi et al. (2020), Wang et al. (2020), Baker et al. (2020) and Harjoto and Rossi (2021) focused mainly on COVID impact on the stock market responses. Sergi et al. (2020) showed that the global equity market across 76 countries reacted negatively to the global pandemic. The decline in GDP, increasing unemployment, inflation and long-term interest rates contributed to volatility of stock markets. Similar findings, for Chinese economy, were observed by Wang et al. (2020) who estimated the impact of COVID-19 on Chinese GDP at 4.8 trillion Yuan in the first quarter of 2020. This decline represented year-on-year decline of 15.60%. Baker et al. (2020) pointed out that responses in stock markets could be explained not only by the lethality of the virus, but also by the government restrictions on mobility and business activities, which mainly affected developed service-oriented economies. Harjoto and Rossi (2021) identified significant differences in cumulative abnormal returns on stock markets in developed and developing economies during the first wave of COVID-19 pandemic.

Another view to analyse impact of COVID restrictions is through the analysis of financial health of SMEs through various financial and non-financial variables. Ciampi et al. (2021), for example, argued that the chances of SMEs to survive the COVID-19 pandemic increased with the ability to innovate and adapt to new market and human capital requirements. Carletti et al. (2020) analysed COVID-related decrease in profits and equity ratios on a sample of 80,972 Italian companies. Analysis of individual sectors conducted by Carletti et al. (2020) indicates that

bankruptcy occurred in SMEs with high levels of pre-pandemic debt or in SMEs from manufacturing, wholesale and trading sectors. Study of Gourinchas et al. (2021) indicates that the least affected sector in 2020 was health and social work, while the most affected sectors were mining, accommodation and catering. According to a survey of more than 5800 US small enterprises conducted by Bartik et al. (2020), the following sectors were affected the most: personal services, tourism and lodging and restaurant/bar/catering. These sectors experienced the lowest probability of reopening if the restrictions lasted 6 months. Efforts of these companies to stay in business depended on availability of loans and other economic policies to help bridge the lockdown period. Harjoto and Rossi (2021) concluded that in emerging and developed markets the COVID-19 pandemic had negative effects on sectors such as energy and financial services, but it also had positive impact on other sectors like telecommunications and health care. He et al. (2020) studied positive impact of the pandemic on high-tech industries, such as manufacturing, information technology, education and health care, based on stock prices on the Shanghai Stock Exchange and the Shenzhen Stock Exchange. The negative impact was observed, like in other countries, mainly in transportation, mining, electric and heating, and environmental sectors. This study showed a heterogeneous reaction of industries to major emergencies to COVID-19 pandemic.

COVID impact on SMEs therefore depends on the economic sector and the development level of an economy. Most existing studies focused mainly on SMEs from developed economies such as the USA or Western European countries. So far, only several studies analysed the impact of the pandemic on small open economies such as Slovakia, other CEE or Balkan countries. Based on this gap in existing literature, framework of this manuscript focuses on small- and medium-sized enterprises operating in Slovakia. This manuscript compares pre-COVID and COVID levels of liquidity, debt and profitability. Based on the results of this study, governments of small open economies would be able to take steps to help SMEs survive periods of reduced liquidity and keep them alive through state loans and grants.

5.3 Research Methodology

5.3.1 Data Sample

Financial statements of 120,485 companies for the fiscal years 2019 and 2020 were collected to fulfil the aim of this manuscript. These financial statements were already published in May 2021. The Finstat database, which contains the financial statements of companies operating in Slovakia, was used as a data source. All companies that were not classified as SMEs did not have published financial statements for analysed years or did not contain some of the items required to calculate financial ratios were removed from the data sample. The final data sample,

after this adjustment, therefore consisted of 109,340 financial statements. The number of companies and their division into individual sectors is shown in Table 5.1. Companies were divided into individual categories according to the NACE classification. The largest representation of companies in the data sample was from construction (11%), law, consulting and accounting (9%), retail (8%) and real estate (7%) sectors.

Financial indicators of companies included in the data sample were calculated. These indicators were divided into liquidity, debt and profitability ratios—ratios for which the impact of the COVID-19 pandemic was expected the most. The list of all financial ratios and their calculation is provided in Table 5.2. These indicators were chosen as they are the most commonly used financial ratios in assessing financial health of companies (Farooq & Qamar, 2019; Xiao et al., 2012; Xie et al., 2011) and also because the pandemic affected mainly liquidity, profit and level of debt of companies.

5.3.2 Statistical Methods

The Kruskal–Wallis test, also called a nonparametric one-way ANOVA (analysis of variance), was used to verify the hypothesis that the medians of two company groups were identical. In this study, the two groups were the pre-pandemic year 2019 and the COVID year 2020 and their respective selected financial indicators.

The assumption of this test is the independence of the sample and the continuity of random variable $X_i, i = 1, \dots, n$, where n represents the number of companies in the data sample. As financial indicators calculated for years 2019 and 2020 were based on independent financial statements, both measurements were considered as independent. Also, the calculated financial indicators were expressed as real numbers and therefore were be considered as continuous random variables—fulfilling the second assumption of the Kruskal–Wallis test. (Gibbons, 1993).

Tested hypothesis (5.1) of the Kruskal–Wallis test has the following form:

$$H_0 : M_{j,2019} = M_{j,2020} \quad (5.1)$$

and alternative hypothesis (5.2) for the Kruskal–Wallis test has the following form:

$$H_1 : M_{j,2019} \neq M_{j,2020} \quad (5.2)$$

where j equals index for particular sector, $M_{j,2019}$ represents median of financial indicator for sector j in pre-pandemic year 2019, and $M_{j,2020}$ represents median of financial indicator for sector j in pandemic year 2020. All calculations were performed in RStudio version 1.3.959.

Table 5.1 Sample distribution

Sector	Number	%	Sector	Number	%
Advertising	2384	2.18	Intermediary activity	4266	3.90
Agriculture and forestry	2782	2.54	Law, consulting and accounting	9735	8.90
Automobile industry	151	0.14	Media, publishing and culture	1955	1.79
Clothing and footwear	569	0.52	Metalworking and metallurgy	2335	2.14
Construction	12,169	11.13	Production—Other	415	0.38
Development and civil engineering	4268	3.90	Real estate	8125	7.43
Education	1375	1.26	Research and development	1675	1.53
Electrical engineering	835	0.76	Retail	8525	7.80
Energy and mining	674	0.62	Sales and maintenance of vehicles	2013	1.84
Engineering	1090	1.00	Service	7410	6.78
Finance	2332	2.13	Telecommunications	292	0.27
Food processing industry	1091	1.00	Tourism and gastronomy	5568	5.09
Gambling	118	0.11	Transportation and logistics	4132	3.78
Health care	6470	5.92	Waste management	454	0.42
Chemistry and plastics	598	0.55	Wholesale	7754	7.09
Information technology	6615	6.05	Wood and paper	1165	1.07
Total	109,340				

Source: own calculation based on Finstat database

Table 5.2 Financial ratios

Type	Ratio	Formula
Liquidity	Cash ratio	Cash and cash equivalents/current liabilities
	Quick ratio	(Cash and cash equivalents + marketable securities + accounts receivables)/current liabilities
	Current ratio	Current assets/current liabilities
Leverage	Total debt-to-asset ratio	Total debt/total assets
	Long-term debt-to-asset ratio	Long-term debt/total assets
	Financial leverage ratio	Total assets/total shareholders' equity
Profitability	Return on equity	Net income/total shareholders' equity
	Return on assets	Net income/total assets
	Return on sales	Operating profit/net sales

Source: own source

5.4 Results of Analysis

The results of analysis were divided into three separate parts depending on financial indicators used—liquidity, debt and profitability ratios. Table 5.3 contains calculated median for liquidity ratios for the pre-pandemic year 2019 and the COVID year 2020 along with the significance levels determined by the Kruskal–Wallis test. Based on the results, the only statistically significant change in quick and current ratios is observed only for two sectors: health care, and law, consulting and accounting. This change in values of the two sectors may be explained by increased proportion of invoices (services provided on account) with longer payment periods than direct cash or card payments. Values of cash ratio in Table 5.3 are the same for all sectors as the differences are only in the fourth and further decimal points.

No statistically significant differences in liquidity ratios between the pre-pandemic and the COVID year were observed for companies from other sectors. If companies had any liquidity problems, they probably occurred only temporarily during the first wave of the pandemic. These problems were then overcome by the time the financial statements were prepared and published and therefore did not result in changes in the liquidity ratios.

Table 5.4 contains the median values of the debt ratios for the pre-pandemic year 2019 and the COVID year 2020 along with the significance levels determined by the Kruskal–Wallis test. Results indicate that the total debt or long-term debt of companies increased statistically significantly for the construction, food processing, law, consulting and accounting, retail, service and tourism and gastronomy sectors. These sectors did not show any liquidity problems as described in Table 5.3—this can be explained by increased volume of loans and outstanding invoices which provided much-needed cash for companies. On the other hand, there are sectors such as development and civil engineering, education, information technology and media, publishing and culture which all increased their shareholders' equity statistically significantly meaning the company owners invested additional capital into their businesses to overcome difficult COVID period.

Table 5.5 includes the median values of selected profitability ratios for the pre-pandemic year 2019 and the COVID year 2020 along with the significance levels as determined by the Kruskal–Wallis test. As shown in Table 5.5, the COVID pandemic most severely affected profit of companies. This decrease in profitability was caused by temporary closure of many business activities and decrease in individual consumption. Return on assets of companies from tourism and gastronomy sector during the COVID year even reached negative numbers. There was also significant decrease in return on sales, apart from only a few sectors (advertising, development and civil engineering, education, gambling, intermediary activity, real estate, and research and development). It can be concluded that the COVID pandemic hit the economy widely, especially in company sales revenues.

Table 5.3 Liquidity ratios and Kruskal–Wallis test

Sector	Cash ratio			Quick ratio			Current ratio		
	2019	2020	Sign.	2019	2020	Sign.	2019	2020	Sign.
Advertising	0.000	0.000		0.295	0.283		0.367	0.367	
Agriculture and forestry	0.000	0.000		0.344	0.287		0.720	0.687	
Automobile industry	0.000	0.000		0.503	0.571		1.000	0.986	
Clothing and footwear	0.000	0.000		0.285	0.249		0.705	0.563	
Construction	0.000	0.000		0.384	0.363		0.563	0.552	
Development and civil engineering	0.000	0.000		0.516	0.472		0.572	0.557	
Education	0.000	0.000		0.161	0.130		0.190	0.164	
Electrical engineering	0.000	0.000		0.580	0.560		0.966	0.917	
Energy and mining	0.000	0.000		0.726	0.725		0.820	0.838	
Engineering	0.000	0.000		0.600	0.565		0.922	0.954	
Finance	0.000	0.000		0.217	0.265		0.279	0.340	
Food processing industry	0.000	0.000		0.148	0.154		0.424	0.412	
Gambling	0.000	0.000		0.607	0.307		0.743	0.343	
Health care	0.000	0.000		0.704	0.814	***	0.905	1.000	***
Chemistry and plastics	0.000	0.000		0.565	0.452		1.037	0.953	
Information technology	0.000	0.000		0.648	0.647		0.713	0.719	
Intermediary activity	0.000	0.000		0.203	0.177		0.357	0.364	
Law, consulting and accounting	0.000	0.000		0.411	0.431	*	0.467	0.489	*
Media, publishing and culture	0.000	0.000		0.345	0.290		0.446	0.398	
Metalworking and metallurgy	0.000	0.000		0.582	0.545		0.803	0.801	
Production—Other	0.000	0.000		0.237	0.233		0.653	0.576	
Real estate	0.000	0.000		0.086	0.087		0.124	0.128	
Research and development	0.000	0.000		0.488	0.482		0.556	0.568	

(continued)

Table 5.3 (continued)

Sector	Cash ratio			Quick ratio			Current ratio		
	2019	2020	Sign.	2019	2020	Sign.	2019	2020	Sign.
Retail	0.000	0.000		0.087	0.087		0.588	0.583	
Sales and maintenance of vehicles	0.000	0.000		0.159	0.160		0.623	0.635	
Service	0.000	0.000		0.143	0.152		0.241	0.268	
Telecommunications	0.000	0.000		0.622	0.498		0.785	0.618	
Tourism and gastronomy	0.000	0.000		0.069	0.077		0.164	0.150	
Transportation and logistics	0.000	0.000		0.567	0.568		0.615	0.631	
Waste management	0.000	0.000		0.528	0.544		0.690	0.760	
Wholesale	0.000	0.000		0.445	0.432		0.915	0.915	
Wood and paper	0.000	0.000		0.302	0.294		0.575	0.553	

Significance codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Table 5.4 Leverage ratios and Kruskal–Wallis test

Sector	Total debt-to-asset ratio			Long-term debt-to-asset ratio			Financial leverage ratio		
	2019	2020	Sign.	2019	2020	Sign.	2019	2020	Sign.
Advertising	0.336	0.334		0.000	0.000		1.184	1.159	
Agriculture and forestry	0.501	0.489		0.001	0.002		1.575	1.548	
Automobile industry	0.569	0.596		0.003	0.003		1.673	1.639	
Clothing and footwear	0.508	0.487		0.001	0.001		1.378	1.306	
Construction	0.535	0.559	**	0.000	0.000	***	1.454	1.449	
Development and civil engineering	0.326	0.311		0.000	0.000		1.286	1.241	*
Education	0.279	0.289		0.000	0.000		1.167	1.119	*
Electrical engineering	0.384	0.363		0.001	0.001		1.341	1.312	
Energy and mining	0.694	0.675		0.002	0.003		2.216	2.049	
Engineering	0.483	0.495		0.002	0.003		1.523	1.445	
Finance	0.366	0.385		0.000	0.000		1.192	1.168	

(continued)

Table 5.4 (Continued)

Sector	Total debt-to-asset ratio			Long-term debt-to-asset ratio			Financial leverage ratio		
	2019	2020	Sign.	2019	2020	Sign.	2019	2020	Sign.
Food processing industry	0.571	0.638	*	0.001	0.001		1.372	1.349	
Gambling	0.204	0.202		0.001	0.000		1.159	1.120	
Health care	0.371	0.350		0.003	0.003		1.402	1.368	
Chemistry and plastics	0.503	0.481		0.002	0.002		1.533	1.506	
Information technology	0.225	0.215		0.000	0.000		1.203	1.174	**
Intermediary activity	0.375	0.370		0.000	0.000		1.147	1.134	
Law, consulting and accounting	0.266	0.261		0.000	0.000	*	1.186	1.169	
Media, publishing and culture	0.358	0.348		0.000	0.000		1.234	1.162	**
Metalworking and metallurgy	0.510	0.505		0.002	0.002		1.592	1.544	
Production—Other	0.478	0.544		0.000	0.000		1.249	1.243	
Real estate	0.585	0.576		0.000	0.000		1.316	1.287	
Research and development	0.257	0.259		0.000	0.000		1.180	1.178	
Retail	0.605	0.612		0.000	0.000	*	1.249	1.239	
Sales and maintenance of vehicles	0.689	0.699		0.000	0.001		1.449	1.458	
Service	0.304	0.334	**	0.000	0.000	**	1.135	1.133	
Tele communications	0.338	0.324		0.000	0.000		1.367	1.320	
Tourism and gastronomy	0.649	0.722	***	0.000	0.001	**	1.098	1.055	
Transportation and logistics	0.599	0.606		0.001	0.002		1.650	1.603	
Waste management	0.522	0.508		0.001	0.001		1.511	1.513	
Wholesale	0.559	0.548		0.000	0.000		1.470	1.425	
Wood and paper	0.637	0.661		0.001	0.002		1.551	1.544	

Significance codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Table 5.5 Profitability ratios and Kruskal–Wallis test

Sector	Return on equity			Return on assets			Return on sales		
	2019	2020	Sign.	2019	2020	Sign.	2019	2020	Sign.
Advertising	0.060	0.050		0.014	0.005	**	0.008	0.010	
Agriculture and forestry	0.018	0.018		0.005	0.004		0.721	0.016	***
Automobile industry	0.098	0.062		0.019	0.017		0.086	0.018	**
Clothing and footwear	0.034	0.035		0.004	0.002		0.028	0.008	***
Construction	0.058	0.047	***	0.017	0.009	***	0.026	0.013	***
Development and civil engineering	0.104	0.092	**	0.053	0.043	***	0.037	0.055	
Education	0.049	0.045		0.017	0.004	*	0.006	0.013	
Electrical engineering	0.105	0.077	*	0.046	0.029	**	0.100	0.028	***
Energy and mining	0.092	0.104		0.031	0.040		1.234	0.078	***
Engineering	0.092	0.077	*	0.041	0.026	***	0.212	0.029	***
Finance	0.042	0.059		0.011	0.013		0.005	0.012	**
Food processing industry	0.034	0.030		0.000	0.000		0.001	0.000	***
Gambling	0.017	0.000	*	0.010	0.000	**	0.010	0.000	
Health care	0.235	0.218	*	0.159	0.146	**	0.199	0.113	***
Chemistry and plastics	0.049	0.049		0.011	0.015		0.105	0.019	***
Information technology	0.154	0.167		0.085	0.096		0.056	0.092	*
Intermediary activity	0.028	0.024		0.000	0.000	**	0.000	0.000	
Law, consulting and accounting	0.071	0.079		0.030	0.030		0.014	0.042	***
Media, publishing and culture	0.070	0.041	***	0.029	0.006	***	0.020	0.013	***
Metalworking and metallurgy	0.085	0.060	***	0.029	0.018	***	0.151	0.020	***
Production—Other	0.031	0.023		0.001	0.000		0.008	0.000	**
Real estate	0.027	0.022		0.002	0.001	*	0.007	0.006	

(continued)

Table 5.5 (continued)

Sector	Return on equity			Return on assets			Return on sales		
	2019	2020	Sign.	2019	2020	Sign.	2019	2020	Sign.
Research and development	0.103	0.083	**	0.055	0.035	*	0.031	0.049	
Retail	0.039	0.037		0.000	0.000		0.003	0.000	***
Sales and maintenance of vehicles	0.058	0.057		0.005	0.003		0.013	0.007	***
Service	0.029	0.027		0.001	0.000		0.001	0.001	***
Tele communications	0.069	0.072		0.043	0.044		0.055	0.042	*
Tourism and gastronomy	0.033	0.007	***	0.000	-0.026	***	0.000	0.000	***
Transportation and logistics	0.042	0.059	*	0.005	0.007		0.019	0.015	***
Waste management	0.032	0.076	*	0.005	0.015		0.023	0.022	*
Wholesale	0.061	0.053	**	0.013	0.010	**	0.046	0.011	***
Wood and paper	0.040	0.039		0.007	0.004		0.049	0.009	***

Significance codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

5.5 Conclusions

The aim of this manuscript was to analyse the impact of the COVID-19 pandemic on the financial health of SMEs in Slovakia. This analysis was performed on a sample of 109,340 SMEs from Slovakia by comparison of selected financial indicators for the pre-pandemic year 2019 and the COVID year 2020 on a sector basis. The results of this manuscript show that the most significant impact was on profitability indicators, which decreased significantly in the majority of sectors. Impact of the COVID restrictions was less significant for debt indicators, which only increased in the most affected sectors. The lowest impact of the pandemic was observed for the liquidity indicators, where only two sectors experienced statistically significant decrease. Unlike profitability and debt indicators, it can be assumed that companies managed to overcome their liquidity problems by the time their financial statements were prepared, and therefore no significant changes in the liquidity indicators were observed in this manuscript.

The most affected sectors, in terms of both debt and profitability, were construction, food processing industry, law, consulting and accounting, retail, service, and tourism and gastronomy. This finding is in line with findings of other authors like Bartik et al. (2020). Bartik identified the most significant COVID impact on the tourism and gastronomy sector. Compared to other studies, however, this manuscript showed also significant decrease in profitability ratios (especially return on sales) across majority of the sectors. Year on year, though, even increase in the return

on assets or return on equity was observed in some sectors (e.g. transportation and logistics, waste management), and this increase was statistically significant for return on assets. Nevertheless, these sectors cannot be considered as those purely benefiting from the ongoing COVID-19 pandemic.

Possible limitation of this study is that its data sample does not include financial reports of all SMEs operating in Slovakia, but only those that published their financial statements by May 2021 (in regular deadline). It is highly likely that these companies are among those with better financial health and have not requested the Financial Administration of Slovakia for extension of their tax return deadline. The financial situation of companies that ceased business activities in 2020 was not considered in this research. If these companies were considered in this manuscript, its results might have been more unfavourable.

Suggestion for future research is to conduct similar analysis on the sectors basis; however, further comparison among various countries might provide also interesting results.

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