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The Impact of the Covid-19 Pandemic on Profitability Indicators in the Hospitality Sector

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Abstract: Many business entities in Slovakia felt the pressure of government restrictions during the Covid-19 pandemic, especially entities from SK NACE I: accommodation and food services activities. The main objective of this article is to analyse the return on equity, assets and sales in selected sectors in Slovakia and find out if the Covid-19 pandemic has an effect on these profitability ratios. Firstly, we use ex-post financial analyses and then Friedman's nonparametric test to find those groups of years between which there are differences. The study period 2016-2021 includes comparisons before the Covid-19 period, as well as dealing with the pandemic era. Our investigation concerns 321 business entities from SK NACE I, especially from Division 56: Food and beverage service activities. The findings showed the impact of the pandemic on profitability indicators such as total assets, equity, and sales. Therefore, it was feasible to establish that these are the indicators most affected by the pandemic, such as the economic outcome after taxes, assets, equity, and sales. Additionally, significant differences in indicators were confirmed in the pairs of years 2019–2020 and 2019–2021. Significant changes were confirmed between the years provided, which may most likely be attributed to the outbreak of the pandemic of the viral disease Covid-19. This study and its results may have added value for the management of business entities and the government of the Slovak Republic by stimulating the negative impact of the Covid-19 pandemic on firms in these sectors.

Keywords: pandemic; impact analysis; profitability; hospitality sector; financial performance.

Introduction

The viral disease Covid-19, which caused a pandemic in 2020–2021, shook the world at the same time. Despite swift and stringent action, the pandemic outbreak was unable to be contained (Rybaczewska et al., 2021). Although the Covid-19 pandemic has caused disruptions around the world, it is a temporary mortality shock that is likely to dissipate (Carannante et al., 2022). Even given our circumstances, with the first confirmed case of Covid-19 in Slovakia in March 2020, it was important to take the appropriate precautions. It was vital to make judgments that prioritised our safety and health. Closing schools and declaring a state of emergency were among the important actions. When the pandemic did not abate and the virus spread even faster, it became clear that immediate action would be required, as well as judgments that were also future-orientated (Grancay, 2020).

The problem in the form of a pandemic of such magnitude will not go away quickly, and the economies of all states will most certainly suffer considerably. The Covid-19 viral disease pandemic had a significant impact on the global economy, as well as the employment of the Slovak Republic's population. To survive, businesses cut the number of staff, and that fact increases the number of unemployed people. The measures to prevent the spread of Covid-19 included suspension of classes in all types of schools for at least 14 days, restrictions on access to the country and the ability to travel, border controls, mandatory quarantines in various cases, and restrictions on the ability to operate shopping centres, restaurants, and other organisations and facilities that

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primarily offered services to final consumers. Later, the government's decisions were strengthened, a state of emergency was declared, and all shops were closed except for food, pharmacy, Internet services, etc. Not only did the economically weaker developed countries suffer, but also the most developed.

Several measures were implemented regarding population quarantine to ensure the health of the people of the countries, which had an impact on the economic downturn and the beginning of the economic crisis. The countries' approved policies partially or completely influenced commercial activity in some circumstances. Demand fell and, as a result, the value of sales decreased, affecting the corporate entity's economic results. The Slovak Republic had long-term anti-pandemic policies in place, making us one of the countries with the most severely hit economies.

The lodging and catering businesses were the hardest damaged, and their operations were completely prohibited during the initial wave of the pandemic. This is also since it is one of the sectors that was restricted first, but the mitigation and relaxation of these limitations for the specific industry came later. Due to the significant impact on businesses and employees, the government of the Slovak Republic also implemented steps to assist and support them. These actions might alternatively be classified as national or targeted at the most vulnerable individuals.

Employment assistance, assistance for entrepreneurs in the event of a loss of income, the opportunity of deferring lease payments, taxes, loans, and insurance premiums, the potential of rent subsidies, and many other measures were implemented across the board. The aid was delivered in a specific and particular manner to the most affected subjects. As a result, the pandemic has had an impact on demand, supply, human mobility, global consumption, GDP, inflation rate, industrial production, and employment (Slovak Business Agency, 2020). The coronavirus (Covid-19) pandemic has devastated all economies around the world and caused a deterioration in the financial performance of companies. However, some sectors have been shown to be more vulnerable, while others have continued to perform well during the crisis period.

Beginning on December 16, 2020, business entities that were directly impacted by the Covid-19 pandemic and met specific criteria were eligible to apply for a subsidy. The subsidy functioned as a substitute for sales that business entities forfeited because of the nation's quarantine measures, which, of course, aided the tourism sector. The maximum funding allowed for state aid in the form of subsidies was 10 million euros in 2020, and it increased to seven times that amount in 2021. State aid applicants may include, among others, businesses that transport road freight for payment or on a lease basis. The subsidies provided by the government were restricted to a maximum value per business entity. The amount was 200 000 euros for companies in other sectors and 100 000 euros for road freight transport operators.

The subsidy was available to subjects whose economic activity commenced no later than March 31, 2020, and experienced a direct impact from anti-pandemic measures. Eligible recipients were those with a net turnover decrease of 40 % or more compared to 2019. Thus, state aid is granted to business entities that satisfy additional prerequisites. The entity in question must have fulfilled its financial obligations to the state budget, refrained from utilising or requesting contributions from the European Union or a public administration body, and cannot be in liquidation or bankruptcy.

Additionally, it cannot have accrued arrears in social security or health insurance and cannot have been subject to legal sanctions that prohibit the receipt of subsidies within the three preceding years. Subsidy applicants may consist of organisations engaged in various tourism-related economic activities, such as lodging, restaurant and hospitality operations, land and water transportation for passengers, sports equipment rental and leasing, travel agency and office operations, reservation services and related endeavours, congress and business exhibition organisation, and sports and recreation education. Our

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chosen sector is evidently included in the group of tourism industries whose business entities, subject to fulfilling additional criteria, are eligible to apply for state aid aimed at bolstering the tourism industry (Antimonopoly Office of the Slovak Republic, 2022).

According to our findings, the researchers did not deal with the profitability indicators of the selected sector and, by conducting the research, we filled the research gap. The main objective of this study is to analyse the return on equity, assets, and sales in a selected sector in Slovakia and to determine if the Covid-19 pandemic has an effect on these profitability ratios. The originality of this study lies in its focus on a specific division of the sector, SK NACE I.

The purpose of this article is to suggest some improvements to help business entities reduce the negative impact of the Covid-19 pandemic. The objective of this study was to assess the financial development of the sector because of the Covid-19 anti-pandemic efforts and to offer a strategy for the sector's future development. To achieve the goal, we used ratio indicators of profitability and Friedman's nonparametric test. In the Chapter Discussion, there will be a summary of studies that focus on profitability analyses and the impact of the Covid-19 pandemic.

Literature review

Taking this fact into account, we conducted a comprehensive study with the aim of estimating the impact of the Covid-19 pandemic on the profitability of companies in Europe. Profitability analysis, which reveals the factors that affect profitability, becomes a very useful tool, providing guidance to managers in their short-term and strategic decision-making processes. To make the right decisions, managers must analyse their financial situation, especially regarding the profitability of the company and the factors that affect it (Lesakova et al., 2019).

Labadze and Sraieb (2023) examine which sectors were affected and the extent of the impact on firm profitability, and whether the severity of anti-pandemic policies such as workplace closures and travel bans affected companies unevenly. The finding was that Covid-19 caused a roughly 25% drop in business profitability. The sectors most affected were consumer goods and industrials, where profitability fell from 20% to 48%. They also found that firms in countries with high anti-pandemic policies lost around 19% more profitability in 2020 than in the rest of Europe.

Moreover, Bartos et al. (2022) employed the following measures: return on assets, return on equity, and return on sales. In general, the Central European service sector appears to be in good financial health. Companies in the central European service sector outperform the EU average in terms of profitability indices. Soon, the Czech Republic must address the issue of stabilising the excessively fluctuating return on sales. Finally, and most critically, businesses use much too many fixed assets. Slovakia, Hungary, and Poland can be called stable countries because they were either not affected by the Covid-19 pandemic or were able to quickly erase its impacts. Therefore, they can concentrate on overall financial health indicators and long-term development. Germany and notably Austria are at the top of the list. Companies in the service industry are relatively stable, far above the EU average. However, some caution should be exercised in their presence. They may be urged to limit company liquidity, which now works against profitability measures.

Kang and Kim (2022) examine and assess the financial ratio differences between the before and after Covid-19 scenarios for hotel enterprises. Sixteen financial ratios were estimated for 12 5-star hotels in Seoul using 2019 and 2020 financial statements, including before and after Covid-19 scenarios. The appropriate sample hypothesis was then t-tested. Based on their findings, Kang and Kim (2022) recommended that efforts be made to prevent hotel company insolvency by monitoring business performance indicators and improving business performance and profitability. On the Slovakian

market, the following have already been investigated: transport sector (Mazanec, 2023), construction sector (Gajdosikova et al., 2022; Valaskova et al., 2021), agriculture sector (Vighova et al., 2023), sector of professional, scientific, and technical activities sector, manufacturing sector, information and communication services sector and other services activities sector (Dancakova et al., 2022).

Each European country adopted different approaches and results in the recovery processes in the investigated sector. Austria utilised tax reductions to support the financial stability of all sectors, particularly tourism. The entities of our analysed industry that were closed during the closure in 2020 were compensated for their turnover. In the case of accommodations and gastronomy, this amounted to 80 % of the turnover from the corresponding period in the previous year. The owners of private accommodations were also assisted. To bolster the tourism sector, the Austrian government implemented several measures: reduced the value-added tax (VAT) rate to 5 %, provided a package to assist small and medium-sized tourism enterprises with inadequate liquidity, assisted event organisers, assisted travel service providers in reimbursing travellers in the event of insolvency, established a financing scheme dedicated to gastronomy, and allocated investments for the construction of terraces. The National Tourist Office initiated a 40 million euros special campaign in March 2020 to aid in the resurgence of Austrian tourism.

The Czech Republic government implemented a tax programme; the value-added tax (VAT) for services including lodging, culture and athletics was reduced from 15% to 10%; and businesses were able to decrease their tax bases considering the tax loss reported in 2020 due to the state of emergency. The regions implemented a national tourism programme until 2022 with the objective of providing crisis support. An additional notable campaign that emerged was the #CzechTourism initiative. The initiative was related to the introduction of videos in international markets with the aim of enticing tourists to visit the nation in 2021. In one of the most significant active tourism markets, the United States, the "See you in 2021" advertising campaign was also displayed in Times Square, New York, and on a prominent US television station. To maintain liquidity, business entities in Hungary were eligible to apply for loans. The government has provided investment subsidies, reduced taxes, reimbursed up to 80 % of revenue lost in the catering and hospitality industry because of the Covid-19 pandemic, and decreased the value-added tax on food supplies from 27% to 5%, among other measures. Additionally, the Széchenyi Card loan programme was established and subsequently expanded in 2020 to include a novel loan variant tailored specifically for micro, small and business enterprises engaged in the tourism industry. To promote the delivery service, the Hungarian Tourism Agency initiated a domestic campaign known as #jótettem (translated as #I've made up for it).

The Hungarian Tourism Agency has allocated 220 million euros annually for the development of domestic tourism and an additional 220 million euros for the renovation of hotels in the countryside; thus, accommodation development programmes in Kisfaludy have already acquired new dimensions. The National Bank of Poland lowered the interest rate to 1 % and implemented tax and spending measures; additionally, Poland launched a mechanism designed to mitigate the financial losses of business entities to ensure their effective operation on the tourism services market. The issuance of loan requalification measures was intended to extend the period of credit loss offset. To promote domestic tourism, the government issued 111 euros vouchers redeemable for hotel and associated services across the nation. Free of charge, Polish families with children were able to use this voucher (World Tourism Organisation, 2021).

The corporate entities of the Slovak Republic clearly suffered because of the government's rigorous measures to prevent the spread of this viral disease. Some entities' operations and functioning were hampered, while others had to be entirely shut down, and their operations were halted. In the current situation, businesses that did not go bankrupt, liquidate, or cancel owing to the assault of tight measures are attempting to recover and return to the level of functioning they had prior to the pandemic's breakout. Another

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impetus to resolve this issue was the belief that, in certain cases, greater state intervention and assistance could significantly affect the functioning and future of business entities doing business on the territory of the Slovak Republic, thus preventing their collapse, liquidation, and cancellation. The aim of the contribution is to illustrate the impact of the Covid-19 pandemic on a specific sector of the national economy, NACE I, under the settings of the Slovak Republic and to highlight changes in the sector's financial stability.

Methodology

The purpose of this article is to illustrate and describe the impact of the Covid-19 pandemic on profitability indicators in the hospitality sector in the Slovak Republic in the pre-pandemic and pandemic years. We focus on Section I of the NACE statistical classification of economic activities of the European Communities, which was most affected by several measures during the pandemic. This area is divided into two sections: one for accommodation and one for food and beverage service activities. Division 56: Food and beverage service activities, which comprises restaurant operations performed by traditional self-service restaurants, restaurants that sell across the street, and permanent or seasonal stands, is our pick. The condition is that the food and beverages offered be totally ready for consumption at the specified time.

The data for the industry analysis comes from the Orbis database and are for the years 2016-2021. We have data for 321 firms that can be analysed. The sample is made up of 58.26 % small, 38.94 % medium sized, and 2.80 % large enterprises. The reason for focussing on SK NACE I is that this sector is dependent on direct supply and direct supply was affected and largely limited by the pandemic of the viral disease Covid-19.

We focus on ratio indicators of profitability. These include return on equity ROE, return on sales ROS, and return on assets ROA with the use of EAT. Among the indicators in which the pandemic had the greatest impact are indebtedness, profitability, and liquidity. The pandemic of the viral disease Covid-19 caused the adoption of necessary measures that had a great impact on the functioning, operation, and existence of business entities. In some cases, businesses were completely closed, which, for example, led to the fact that previously prosperous businesses stopped business and remained at a standstill. The purpose of the analyses performed is to determine whether the pandemic had an impact on the profitability of sales, assets, and equity. We will also verify the ex-post financial analysis and its results in a statistical way. Our intention will be to find those groups of years between which there are differences using Friedman's nonparametric test (as the normality of the dataset was not confirmed).

The level of significance that we consider during statistical verification is 0.05, and the hypotheses are the following:
H_0: The median values of financial indicators do not differ from year to year (time does not have a statistically significant effect on the development of financial indicators),
H_1: The median values of at least two financial indicators are different, and their level varies significantly from year to year (time has a statistically significant influence on the development of financial indicators).

If H_0 is rejected, it proves the existence of significant differences in indicator development between the years analysed. Subsequent detection of differences between pairs of years can be monitored through post hoc analysis, where differences are found between the pair of years whose value of Adj. Sig. (calculated based on the Dunn-Bonferoni correction) in the pairwise comparison table is less than the α value of 0.05. In this case, it was important for us to monitor and compare, especially the periods immediately preceding the pandemic (2018 and 2019), with the periods significantly affected by the coronavirus pandemic (2020 and 2021). When Adj. Sig. was equal to 1, we spoke of the existence of no differences.

Profitability ratios represent the profitability of business entities. Their value is influenced by indicators of indebtedness, activity, and liquidity. Profitability is used to express the rate of profit in relation to other quantities, such as equity, total assets, or sales. The indicator informs us about how much profit is produced from a specific activity. The expression of the resulting profitability values is a percentage, but the resulting values can be interpreted without transforming the ratio into percentages. In the following section, we focus on three types of profitability: ROE, ROA, and ROS. For these indicators, it is not possible to clearly determine the values that should be achieved, but for ROE, it is recommended that its value is equal to or higher than the normal interest rate. We can find out whether the company effectively uses credit and foreign resources by comparing the ROE indicator with the ROA and comparing whether the ROE value is smaller than the ROA (Gajdosikova et al., 2022) (see Table 1).

$$ROE = \frac{EAT}{equity} \times 100 \quad [\%] \ (1)$$

$$ROA = \frac{EAT}{assets} \times 100 \quad [\%] \ (2)$$

$$ROS = \frac{EAT}{sales} \times 100 \quad [\%] \ (3)$$

Table 1. Descriptive statistics of input data (6 years average values in thousands of euros)

Indicators	Average	Median	Standard deviation	Variation coefficient
EAT	27.73	4.86	347.19	14.15
Equity	484.45	180.95	2310.09	4,73
Assets	1530.12	614.55	4102.16	2.68
Sales	1367.54	558.10	3863.05	2.83

Source: own processing

Table 1 shows the results of descriptive statistics. The input data are in thousands of euros and from a 6-year period (2016-2021).

Empirical results

The results of the study are illustrated in lane graphs for each indicator. The dependent groups of years between which there are differences are verified by statistical Friedman's nonparametric test and illustrated in hypothesis test summary tables. Table 5 shows the results of their pairwise comparison of profitability, where we use Adj. sig. to prove the impact of the Covid-19 pandemic.

The first profitability indicator analysed is return on equity (ROE). As we can see on the line graph shown in Figure 1, in 2016, the profitability of the analysed industry's equity was 235%, which can be interpreted either as 2.35 euros of after-tax profit produced from 1 euro of equity or as 235 times the value of equity wealth. In 2017, the average return on equity value of the NACE I industry decreased by 197 percentage points. Subsequently, until 2019, the value of this indicator for the industry gradually increased, with small differences. In 2020, there was another decline, but this time the return on equity reached negative numbers. This fact could be interpreted so that 1 euro of equity did not produce a profit, but a loss. This change in the development of the industry's return on equity can be attributed to the outbreak of the Covid-19 pandemic. However, during the pandemic, the values returned above the zero axis in 2021, and profits were made again.

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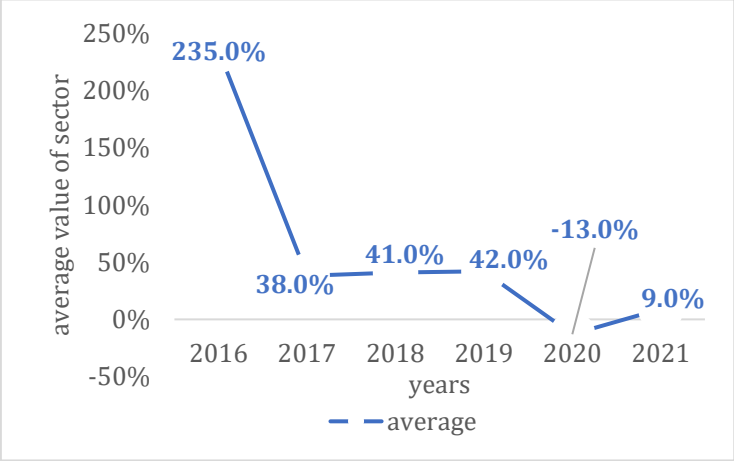

Figure 1. Development of the average ROE (2016-2021)
Source: own processing

A statistical investigation was carried out using the Friedman nonparametric test. Table 2 shows the rejection of the null hypothesis, which means the acceptance of the alternative one. This indicates that the development of the indicator was significantly different between individual periods.

Table 2. Hypothesis test summary ROE

Null hypothesis	Test	Sig.	Decision
The distribution of ROE2021, ROE2020, ROE2019, ROE2018, ROE2017, and ROE2016 is the same.	Friedman test of dependent samples.	0.000	Reject the null hypothesis.

Notes: Asymptotic significances are shown. The significance level is 0.050.
Source: own processing

This was followed by a multiple pairwise comparison of existing pairs, on the basis of which we confirmed significant differences between the pre-pandemic and pandemic periods. We found that the pandemic had a significant impact on the return on equity of the industry analysed.

Figure 2 summarises the development of the return on assets indicator for the NACE I sector, division 56. We can see that the years 2016 and 2020 were probably loss-making for the industry, and the value of the indicator reached its maximum in 2019. Since 2017, the value of the indicator has increased, and the decrease in 2020 can be attributed to the Covid-19 pandemic. A good sign is the fact that in 2021, the value of the indicator increased again to positive values and 0.06 euro of profit after tax was produced from 1 euro of total assets.

Figure 2. Development of the average ROA (2016-2021)
Source: own processing

Table 3 shows that the course of statistical testing was the same as for the previous profitability indicator. We reject the null hypothesis and accept the alternative one that the development of the indicator was different between individual periods, and thus, a multiple pairwise comparison of all pairs was calculated. In this comparison, we came to the conclusion that there are significant differences between the "Covid" period and the previous period, and the pandemic also had a significant impact on this indicator (see Table 5).

Table 3. Hypothesis test summary ROA

Null hypothesis	Test	Sig.	Decision
The distribution of ROA2021, ROA2020, ROA2019, ROA2018, ROA2017 and ROA2016 is the same.	Friedman test of dependent samples.	0.000	Reject the null hypothesis.

Notes: Asymptotic significances are shown. The significance level is 0.050.
Source: own processing

The last and third profitability indicator analysed is sales profitability, which should have a growing trend and positive results. As we can see on the line graph of the average profitability of the sector's sales in Figure 3, in every single year, the industry reached a negative value, which means that a positive profit after tax was not produced from 1 euro of sales but a loss, because with such sales, the business entity cannot achieve any profit. The best and, at the same time, the highest value of profitability in sales was achieved in 2019, and since then it has started to decrease again. In 2020, the value of the indicator deteriorated by 3 percentage points compared to 2019, and when we look at 2021, we can see a deterioration of 152 percentage points.

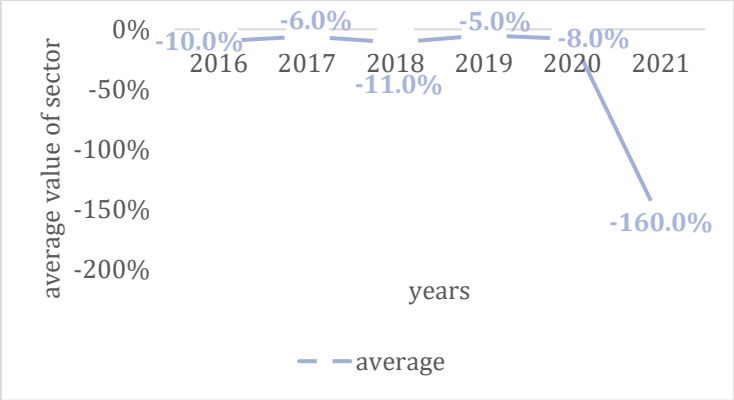

Figure 3. Development of the average ROS (2016-2021)
Source: own processing

Similarly, in Table 4, the null hypothesis was rejected, and the alternative hypothesis was accepted, indicating that there are significant differences in the development of this indicator in the analysed period. The next step was a multiple pairwise comparison, where we found that the pandemic had a significant impact on this indicator as well because there are significant differences between the "Covid" period and the previous period (see Table 5).

Table 4. Hypothesis test summary ROS

Null hypothesis	Test	Sig.	Decision
The distributions of ROS2021, ROS2020, ROS2019, ROS2018, ROS2017, and ROS2016 are the same.	Friedman test of dependent samples.	0.000	Reject the null hypothesis.

Notes: Asymptotic significances are shown. The significance level is 0.050.
Source: own processing

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Table 5. Pairwise comparation of profitability

Year	Period	Adj. Sig.		
		ROE	ROA	ROS
2020	2016-2020	0.000	0.000	0.000
	2017-2020	0.000	0.000	0.000
	2018-2020	0.000	0.000	0.001
	2019-2020	0.000	0.000	0.000
2021	2016-2021	0.000	0.005	0.125
	2017-2021	0.000	0.004	0.026
	2018-2021	0.000	0.056	0.142
	2019-2021	0.005	0.029	0.011
Impact of Covid-19		Yes	Yes	Yes

Source: own processing

Table 5 gives an overview of the resulting values of the variable Adj. Sig. between individual pairs of years of selected additional indicators. As we can see in the table, there are significant differences for many pairs of years. Even for pairs of years 2018–2020 and 2018–2021, significant differences were confirmed in terms of profitability indicators. Significant differences were found for ROE in the pair of years 2018-2020 and 2018-2021; For ROA and ROS, significant differences were confirmed in the pair of years 2018-2020, but no significant differences were found, or no differences were found in the pair of years 2018-2021. But what is important for us are the indicators where significant differences were confirmed in the pairs of years 2019–2020 and 2019–2021 (or Covid years to 2018), because we are assessing the impact of the pandemic, which we can best confirm by comparing it with the year before its outbreak. We can see that for the indicators of total assets profitability, equity capital profitability, sales profitability, and tied assets, significant changes were confirmed between the given pairs of years, which can with great probability be precisely the effect of the outbreak of the viral disease Covid-19 pandemic.

The study's findings suggest that policymakers should develop awareness campaigns aimed at preserving domestic tourism to help Slovak companies participating in NACE I. One potential strategy to encourage domestic tourism is the provision of government financial vouchers to families, redeemable throughout the state. An additional intriguing suggestion for financing hospitality sector could involve providing subsidies for the construction of terraces and the adaptation of operations to restrictions, as well as extending "state contracts" to assist specific affected entities. The state could take an intriguing and significant step by mandating compulsory insurance for directly impacted business entities to prevent negative effects if similar circumstances arise in the future.

Discussion

The current crisis caused by the Covid-19 pandemic has hit the global economy hard and caused significant damage to every aspect of the global banking system, and Bangladesh is no exception. Because of this, its performance and profitability were affected. During the period of the Covid-19 pandemic, high nonperforming loan rates, the holding of more liquid assets, a high amount of collateral capital, and an inappropriate bank size reduced the profitability of banks. On the contrary, the low debt position and inflation rate increased the bank's profitability during this period (Gazi et al., 2022). Companies experienced a sharp drop in profitability after Covid-19, and the increase in the operating cycle exacerbated the drop in profitability (Lin et al., 2023). The Covid-19 pandemic has set a new framework and presented new challenges in the business sector. Companies are facing a possible economic shutdown, as Covid-19 puts pressure on the business performance of companies in all sectors, directly impacting revenue, profitability, and liquidity. Unprofitable companies can only operate in the short term (Pepur et al., 2021). Product market competition has been a global challenge for business organisations due to the influx of the Covid-19 pandemic. In advanced economies, the impact of product

competition on organisational performance has gained the attention of experts, who in many cases have investigated its impact on business profitability (Liu et al., 2022). The authors Papikova and Papik (2022) hypothesised a positive relationship between profitability and company size, age, efficiency of capital employed, and efficiency of structural and human capital in the period before Covid-19. Companies with a higher Value-Added Intellectual Coefficient (VAIC) score achieved higher profitability values in both return on assets (ROA) and return on equity (ROE).

Papikova and Papik (2022) declared that at the sectoral level, the following sectors were most affected by the pandemic: tourism, gastronomy, and gambling, due to various restrictions and closures. The first significant finding of the authors Czodorova and Gnap (2023) was that the selected investigated indicators, such as asset profitability, sales profitability, transport company size, and age of the transport company, showed a significant positive difference in their average values in the period after obtaining ISO 9001 certification compared to the period without certification. Further investigation of the financial situation of transport companies that already had a quality management system in place according to the ISO 9001 standard revealed that all the indicators selected acquired positive values in 2020 during the Covid-19 pandemic, which could also be because transport companies kept their customers.

The transglobal pandemic caused by the coronavirus has caused stagnation in the travel, tourism, and hospitality industries. But the grounded tourism industry has had to walk a tightrope in balancing profitability with responsibility while recovering from the shock of the pandemic (Baksi, 2021). In the study Derco (2022), it was found that there was a decrease in profitability and an increase in the ratio of liabilities to assets. However, currently, insured travel agencies do not have higher values for these indicators. These facts are important for the discussion on the legal regulation of the protection of tour operators against insolvency.

The decline in profitability caused by the impact of the pandemic was also recorded in the Canadian beekeeping sector. An apiary with one pollination contract is no longer profitable, and a bee colony with two pollination contracts has significantly reduced profitability. Travel disruptions and border closures have been an ongoing threat to Canadian agriculture and beekeeping (Bixby et al., 2021). The pandemic also had a detrimental effect on conventional and Islamic banks in Kuwait, as they were the first line of defence for the Kuwaiti economy during the blockade and quarantine. Furthermore, it had a significant impact on ROI, debt, leverage, and return on equity (Almutairi, 2022). Policy responses to the Covid-19 pandemic exacerbated preexisting trends in the childcare market, increasing production costs over time as demand collapsed due to the pandemic, and this led to the systematic closure of childcare centres. This fact will be difficult to reverse due to the high cost of entry into the industry and overall low profitability (Thomas, 2022).

The lockdown worsened the profitability of the company, but not so much that it reached a level of financial distress. Simply put, a lockdown significantly disrupts profitability, leading to a decrease in performance; however, this does not mean that firms in Indonesia generate failure (Brahmana et al., 2023). The drop in sales and the loss of profitability of Brazilian companies due to Covid-19 have led to bold behaviour by managers trying to reverse the effects of the pandemic. Excessive management bias prevails in investment and financial decisions (Amorim et al., 2022). The four most popular coffee agroforestry models in two Lao provinces were profitable before the outbreak of the Covid-19 pandemic. The profits of cooperative growers were higher than those of small farmers due to higher crop productivity and lower costs. As a result of the Covid-19 restrictions, although prices rose, other factors reduced the profitability of all four models, and the small-owner model became unprofitable (Phimmavong et al., 2023). Quarantine restrictions acted as a factor that caused a drop in GDP, a drop in the scope of export-import operations, and a drop in industrial production in Ukraine. The decrease in the pace of macroeconomic development caused an economic imbalance in the country, which

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was manifested by fluctuating inflation, the growth of food and industrial goods prices, reduced business activity by business entities, and a decrease in the volume of commodity turnover that reduced the profitability of businesses (Melnyk et al., 2021).

Profitability is measured by return on assets (ROA) and return on equity (ROE). Even during the Covid-19 pandemic, the intellectual quotient managed to maintain its positive impact on the profitability of banks in China and Pakistan. Among the components of intellectual capital, human capital is the only source of IC that continues to increase the ROA and ROE of Chinese and Pakistani banks during the pandemic period. Policymakers should pay more attention to IC resources that have the potential to improve bank profitability even in times of crisis (Xu et al., 2022). Moreover, Mohd Azhari et al. (2022) found that profitability has a significant impact on total debt both before and after the Covid-19 crisis. Businesses that had higher profits before Covid-19 periods and had less short-term debt been likely to have lower long-term debt during Covid-19 periods. Although growing companies tend to have higher short-term debt, and thus total debt, during these periods, long-term debt is not affected by potential growth.

China's Belt and Road Initiative (BRI) contributes to regional economic development along with infrastructure investments across economic and transport corridors. However, because of the enormous capital requirements and low profitability, the question of its sustainability has been raised. As a result, Covid-19 can significantly weaken the global value chain, and global exports can fall by 20.2%. This may cause the demise of a fifth of the current production network in the automotive industry (Cheong et al., 2022).

Turkey's aquaculture sector continued to grow; net profit margin in 2020 improved significantly by 871% compared to the previous year, and 2020 achieved the highest profitability in 12 years, despite the severe impact of the pandemic on several industries around the world (Erol, 2022). Karim et al. (2022) revealed that the annual averages of the variables of Pakistani banks significantly improved profitability, market return, capital adequacy, and deposit ratio before and during the pandemic era. Roman & Grudzien (2021) found that in 2020, agritourism was profitable and the massive impact of the Covid-19 pandemic on agritourism has been confirmed, as many people chose places with few people (e.g., rural areas) during the pandemic. Primary care providers have significantly improved their profitability due to significant cost savings and reductions in patient services during the Covid-19 pandemic (Korneta et al., 2021).

E-commerce anchor qualities of e-Commerce, perceived scarcity, and immersion all have a favourable influence on impulsive buy behaviour; a "People-Product-Place" marketing strategy is vital; and effective marketing promotes impulsive purchase. Perceived anchor qualities, perceived scarcity, and immersion all have a positive impact on participation, which in turn has a positive impact on impulse purchases. Involvement modulates the relationship between perceived anchor qualities of e-Commerce, scarcity and immersion, and impulsive purchase. These findings help marketers increase the profitability of live streaming e-Commerce and provide some economic recovery benchmarks for many other countries that were also affected by the Covid-19 pandemic (Chen et al., 2022).

If a company is to survive a crisis, it must ensure that its plans are in line with trends that would allow it to grow even during a crisis. Strategies should be guided by existing resource availability and company capabilities. The techniques used must ensure the company's profitability or limit losses, thereby ensuring long-term viability. Based on real-life examples from the current pandemic, it was shown that companies that recognised the characteristics of the crisis had the opportunity to survive the pandemic and profit multiple times (Seshadri & Kumar, 2023).

Conclusions

The purpose of the article was to describe the impact of the Covid-19 pandemic on a selected sector of the national economy and, based on the analyses carried out, to propose measures that could help the sector in the future. The Covid-19 pandemic was a global issue and significantly disrupted the economies of states or all existing business entities in them. To achieve the goal, we chose ex-post analysis. Subsequently, we statistically examined the achieved values of the industry by means of Friedman's nonparametric test in order to find groups of years between which there were statistically significant differences.

Based on the results of industry analyses in the period 2016–2021, we describe the year-over-year development of individual indicators. In 2020 and 2021, we monitored the impact of the Covid-19 viral disease pandemic and subsequently proposed measures that, for the selected industry, SK NACE I, would be helpful in the future. The most significant results are the findings of the impact of the pandemic on the profitability indicators of total assets, equity, and sales. As a result, it was possible to confirm that these are indicators that include the variables that were most affected by the pandemic, such as the economic result after taxes, assets, equity, and sales.

It can be confirmed that the given analysis has a real explanation ability and that it is necessary to take steps to improve the situation of business entities in the selected industry. The proposals and recommendations include measures to help the selected and analysed sectors of the national economy of the Slovak Republic. An important form of help would be, for example, a reduction in the VAT rate, campaigns to save the country's tourism industry published not only within Slovakia but also abroad, family money vouchers provided by the state that can be used in the domestic tourism industry, and the creation of a corporation serving as a conduit for direct communication with affected businesses.

Businesses that provide restaurant and hospitality services could receive help in the form of subsidies to build terraces and adapt operations to conditions in which they could operate even during restrictions. The state could introduce mandatory insurance, which would at least partially secure and cover these businesses if a similar situation was to ever recur. In conclusion, we can summarise that, with an extensive analysis of the sector, we managed to describe the impact of the Covid-19 pandemic on a selected sector of the national economy in the context of its ex-post analysis and, based on this, to propose measures for the help and development of the sector in the future. A weak point of the research is the focus on a single country and a limited number of indicators. In the future, it would be appropriate to examine several indicators and compare them in an international context.

The limitations of the investigation are that the research is focused only on the rentability indicators in one sector in the Slovak Republic. Future research may focus on other ratios in other sectors in other countries and on specific categories of business entities, too. In the future, research can be extended despite these shortcomings.

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