

IMPACT OF COVID-19 PANDEMIC ON TOURISM MANAGEMENT IN V4 COUNTRIES

Bartoš V., Rowland Z., Gavura Š., Škopková K.*

Abstract: Costs are inherent in all aspects of each company. Some of the most noticeable costs of business are the costs associated with storage, transportation, distribution, and management of the company's products. In this case, these costs can be significantly reduced by the use of the services of logistics centers, which specialize in trading all kinds of goods. The purpose of this article is to show how the transfer of logistical supplies from the distribution center contributes to a significant reduction in costs incurred by the company, streamlines its operation, and optimizes management processes. The emergence of the COVID-19 pandemic in early 2020 caused significant disruptions in worldwide businesses, none more so than the tourist industry. This study dives into the varied reaction methods and management measures used by the Visegrád Group (V4) nations - the Czech Republic, Slovakia, Poland, and Hungary - in navigating the challenges posed by the pandemic to their respective tourist businesses. Despite some data limitations, the study's novelty lies in its thorough evaluation of tourism financial development indicators across selected EU countries from 2012 to 2021, offering tailored strategies for each country's economic profile and providing valuable insights for stabilizing the tourism industry. Furthermore, this study seeks to uncover best practices and strategic insights taken from the V4 nations' experiences, providing a contextualized blueprint for future crisis management in the tourist sector. The findings not only add to the scholarly debate on crisis resilience in the tourist sector, but they also give concrete advice for policymakers, industry stakeholders, and destination managers dealing with the pandemic's long-term repercussions.

Keywords: tourism; covid-19; financial indicators; strategy for further development

* **Vojtěch Bartoš**, doc. Ing., Ph.D., Brno University of Technology, Faculty of Business and Management, Institutes of Finances

✉ email: bartos@vut.cz,

ORCID: 0000-0002-2984-275X

Zuzana Rowland, doc. Ing., Ph.D., Institute of Technology and Business in České Budějovice, School of Valuation and Expertness;

✉ email: rowland@mail.vstecb.cz,

ORCID: 0000-0002-7792-8873

Štefan Gavura, Ing., Faculty of Mining, Ecology, Process Control and Geotechnologies Technical University of Košice,

✉ email: stefan.gavura@tuke.sk,

ORCID: 0000-0001-5969-5597

Kateřina Škopková, Ing., Institute of Technology and Business in České Budějovice, School of Valuation and Expertness;

✉ corresponding author: 29652@mail.vstecb.cz,

ORCID: 0000-0002-1688-1047

DOI: 10.17512/pjms.2023.28.1.04

Article history:

Received August 29, 2023; Revised September 21, 2023; Accepted October 19, 2023

Introduction

Carrillo-Hidalgo and Pulido-Fernández (2019) argue that tourism in financially excluded localities slumped, given the poor access of local tourism enterprises to financial systems. Vargova et al., (2020) suggest that boosting competitiveness to exploit the growth potential is a strategic goal for tourism development to provide high-quality tourist services.

Khanna and Sharma (2021) observe that healthy financial development attracts tourists and sufficiently covers related expenses, as profits from tourism are significantly higher than costs. The authors further revealed that the demand and financial development reflect local income levels. Al-mulali et al. (2020) claim that although financial growth positively influences tourism, the economic and price levels of the countries are marginal factors. Akay (2022) disclosed interrelationships between a positive economic and sociocultural effect on tourism development and satisfaction with its quality, support, and entrepreneurship.

Jaramillo-Moreno et al. (2020) claim that firms operating in community tourism failed to introduce administrative and financial procedures, including a strategic and operating plan, market and cost analyses, procedure manuals, market plans, initial positions, income statements, final positions, or financial indicators. Such poor management of corporate funds may lead to winding up the companies. Kirilenko et al. (2021) suggest that although tourism hugely stimulates the economy, too many visitors may harm the localities.

Financial and economic crises inconsistently repeat. Like during the Subprime Crisis in 2007 and 2008, we saw many economic, political, or ideological events and processes that heralded its outbreak (Zemla et al., 2022). Malkina and Ovcharov, (2021) identified periods with increased volatility in European tourism markets as harbingers of financial crises. An FSI-TSI causation model test showed that economic upheavals led to growing tension in tourism markets with an average delay of three months and a marginal effect of 0.2. The COVID-19 pandemic severely disrupted tourism, traveling, and related sectors, sealing borders, putting us in lockdowns, and curbing tourism. The pandemic made us forge stronger social bonds and capacities when the government struggled to prevent economic and social devastation (Higgins-Desbiolles et al., 2021; Gavurova et al. 2022, 2023). Myakshin et al., 2021; Cappellano and Kurowska-Pysz, 2020) argue that effective decision-making and tourism attraction rests on a complex and reliable methodology for assessing tourism potential (Skare et al. 2023a,b). For example, the cruise ship sector should implement efficient preventive measures against highly contagious diseases in advance to fight off the pandemic (Lin et al., 2022).

Financial performance observes the ROA (Return on Assets) indicator, including a profit margin and asset turnover. The findings suggest that seasonal fluctuations and financial performance depend on market segments and vary throughout tourism destinations. On top of that, seasonality sways the profit margin more profoundly than asset turnover, allowing marketing strategies, pricing, and profit management to lessen the negative impact of the seasonality (Zhang et al., 2021). Rodríguez-Fernández et al., (2019) explored the effect of environmental, social, and governance controversies (ESGC) on financial performance, indicating a strong influence on administrative procedures and management.

While existing literature extensively discusses the broad economic and social impacts of COVID-19 on the global tourism industry, there is a notable lack of in-depth studies focusing specifically on the nuanced strategies and measures implemented by V4 (Visegrád) countries - namely, the Czech Republic, Slovakia, Poland, and Hungary - to mitigate the effects of the pandemic on their respective tourism sectors. Understanding these nations' specific issues and adaptation tactics is critical for developing effective and contextually relevant policy suggestions.

The article aims to evaluate the financial development of tourism affected by anti-epidemic measures against Covid-19 and devise a comprehensive strategy for further development.

Financial indicators are subject to change, allowing a better orientation and understanding of the financial situation in tourism. The first research is as follows:

RQ1: How did financial indicators of the financial soundness of tourism change in selected EU countries between 2012 and 2021?

On top of financial indicators, we will explore the best strategy for tourism development, as it brings money to the national economy in most countries. The second research question is as follows:

RQ2: What is the best strategy for tourism development?

Literature Review

Growing global inequality set many scholars thinking about making tourism, one of the largest industrial sectors, more inclusive (Scheyvens and Biddulph, 2017). Shahbaz et al. (2018) applied the Toda-Yamamoto Granger causality test, revealing that tourism development scales with financial growth. While a booming economy correlates with good financial health, the exchange rate does exactly the otherwise. Fauzel and Seetanah (2023) used dynamic regression analysis for 1980-2018 on a vector error correction model, confirming that long-term financial development reflects tourism promotion. The authors also include the economic growth, tourists' incomes, and availability of hotel rooms as other determining factors.

Lopata et al. (2022) suggest evaluating performance management requires observing key performance indicators (KPI) and their change over time. Goh et al. (2022) explored predictive values of financial proportionality ratios as potential indicators of predicting bankruptcy among enterprises operating in tourism and restaurant services, using the Altman Z-score of the bankruptcy prediction model.

The findings revealed that on top of the firm's size and location, indicators showing tourism and catering companies close to bankruptcy rank among the main determinants. Gomes and Oliveira (2021) compared the financial performance in the tourism distribution between Portugal and Spain, using the information in the SABI database. The return on equity (ROE) between 2007 and 2017 suggests an increase of 12.8% for Portugal and 19.6% for Spain. Spearman's Rho revealed that although the return on sales (ROS), asset turnover, and return on assets (ROA) positively correlate with ROE, returns on equity do not prove any direct link to the firm's size. García-Gómez et al. (2022) argue that estimates of panel regression tests based on repeated observations of individuals suggest that the EPU harms ROA, ROE, and Tobin's Q. The findings indicate an asymmetrical impact of EPU on the US firms operating in tourism. In a nutshell, companies with low performance (25% ROA and ROE quantile) are less dependent on EPU, whereas fast-growing firms (100% Tobin's Q quantile) are unaffected by either.

The rapid spread of COVID-19 led to an overall economic disruption of the tourism supply chain, profoundly reducing incomes and slowing the cash flows of all operators (González-Torres et al., 2021). Compared to official statistics on occupancy rates of tourism housing units, figures on POS transactions in Portugal during the COVID-19 pandemic show higher volatility and slighter adverse annual seasonal variations. POS e-payments in accommodation facilities yield reliable data on most municipalities in Portugal, also imparting figures of low-density localities whose indicators must show high statistical reliability (Marques et al., 2022). Milenkovic et al. (2019) focused on the business cash flows of hotels registered in Vojvodina, revealing a higher impact of growing debt and sales ratio on the current than quick cash flow.

We fulfill our research aims by including the following indicators: return on assets (total capital), return on equity, return on sales, sales ratio per employee, and quick, current, and overall cash flow.

Research Data and Methodology

Data for analyzing the financial development of tourism damaged by anti-epidemic measures against COVID-19 come from the Amadeus database, including NACE 79 – Travel agency, tour operator reservation service, and related activities. The involved countries are The Czech Republic, Slovakia, Poland, Hungary, Germany, and Austria between 2012 and 2021. We then compare the findings with the European Union, including all enterprises with available selected financial indicators registered in the database.

Before the analysis, we picked the indicator of the GNP per capita as the indicator of the economic power of the observed country from the Wolframalfa database.

To answer RQ1, we chose the following indicators: the return on assets (total capital), return on equity, return on sales, sales ratio per employee, quick, current, and overall cash flow.

The formula for ROA:

$$ROA = \frac{EBIT}{A} \cdot 100 \quad (1)$$

Where ROA represents a return on assets in percent, EBIT earnings before interest and taxation, and A assets

This indicator informs us on the valuation of all corporate assets or resources of the enterprise operating in tourism.

The formula for ROE:

$$ROE = \frac{EAT}{E} \cdot 100 \quad (2)$$

Where ROE represents a return on equity in percent, EAT earnings after taxation, and E equity

ROE explains whether tourism is attractive to investors who want to fund and buy shares of companies operating in tourism.

The formula for ROS:

$$ROS = \frac{EAT}{S} \cdot 100 \quad (3)$$

Where ROS represents a return on sales in percent and S sales

The return on sales decides upon the profit from after-tax sales. The management and owners usually strive for the highest possible values.

The formula for the sales ratio per employee:

$$S/EMP = \frac{S}{EMP} \quad (4)$$

Where EMP is the number of employees.

This indicator shows how much money one employee produces in k Euro. Here, the management again requires the highest possible values.

Our evaluation also involves three cash-flow indicators.

The formula for a quick cash flow (QCF):

$$PL = \frac{\text{Short Term Financial Assets}}{\text{Short Term Liabilities}} \quad (5)$$

QCF is current financial assets/current liabilities

The indicator informs on whether available corporate funds can cover liabilities.

Low values pose a risk of cash-flow insolvency, whereas high rates will generate too high implicit costs.

The formula for a current cash flow (CCF):

$$BL = \frac{\text{Current Assets} - \text{Inventories}}{\text{Short Term Liabilities}} \quad (6)$$

CCF represents current assets (supplies)/current liabilities

In this case, I suppose I can also use immediate debts to redeem liabilities, looking for optimum – not maximum or minimum values.

The formula for the overall cash flow:

$$\text{Total Liquidity} = \frac{\text{Current Assets}}{\text{Current Liabilities}} \quad (7)$$

Overall cash flow is current assets/current liabilities

The indicator shows that the total current assets (including supplies) can be quickly monetized and used for discharging corporate liabilities. We again strive for optimum – not maximum or minimum values.

For all observed states and indicators, we calculated a winsorized mean as follows:

$$\bar{x}_w(\vartheta) = \frac{1}{n} \left[(M + 1)(x_{(M+1)} + x_{(n-M)}) + \sum_{i=M+2}^{n-M-1} x_{(i)} \right] \quad (8)$$

Where x are statistics according to i, and n values in a sample

RQ2 uses causal analysis to unveil the drawbacks of the findings of RQ1, coming up with constructive suggestions to encourage tourism.

Research Results

In this part, we conduct a thorough examination of the financial parameters that underlie the tourist industry in the Visegrád Group (V4) nations - the Czech Republic, Slovakia, Poland, and Hungary - against the background of the COVID-19 epidemic. This analysis is based on a thorough examination of major financial parameters such as return on assets (ROA), return on equity (ROE), return on sales (ROS), sales ratio per employee, and other cash flow indicators. certain measures are critical indicators of the economic health and viability of the tourist sector in certain V4 countries. By examining these variables from 2012 to 2021, we want to identify patterns, anomalies, and crucial turning moments that have characterized the industry's trajectory.

Figure 1 suggests the GNP per capita in Euros in six countries in 2020, including Germany, Poland, The Czech Republic, Slovakia, Austria, and Hungary.



Figure 1: Gross national product per capita in Euros in 2020
 Source: Wolframalfa.com

The map illustrates that the gross national product per capita in 2020 ranges from about 20,000 to 45,000 EUR. Countries with light colors have smaller GNP per person and vice versa. Poland and Hungary produce the least, i.e. 20,000 EUR per person, slightly losing to Slovakia with a GNP a little above 20,000 EUR per capita. The Czech Republic ranks fourth from the end with a GNP ca 25,000 EUR per capita. Germany and Austria hit the jackpot, having a GNP of over 40,000 EUR per capita.

The following Figure 2 depicts a GNP per person in Euros from 2012 to 2020.

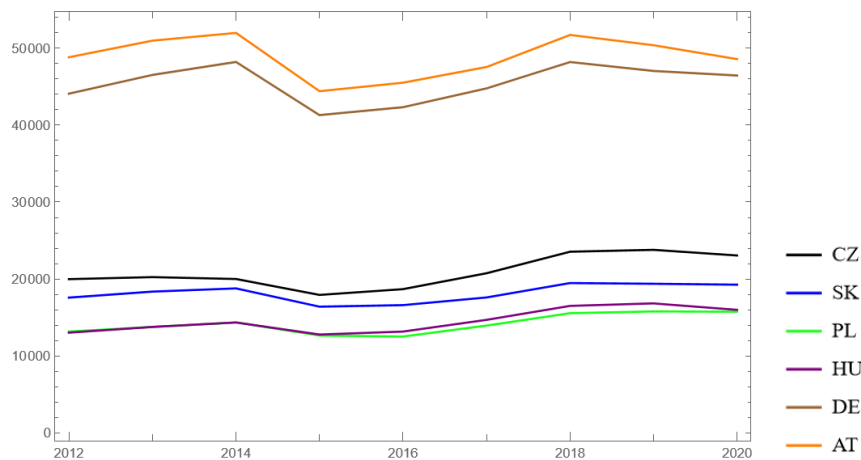


Figure 2: Gross national product per capita in Euros from 2012 to 2020
 Source: Wolframalfa.com

This Figure illustrates the above-spoken countries and their GNP per capita movement. The states have different colors, where X marks years and Y a GNP per person in Euros. We can see that Austria is the runaway winner, topping the highest numbers from about 44,000 EUR to more than 50,000 EUR. Germany sustained a narrow defeat, ranging from 40,000 EUR to 50,000 EUR. Although the remaining countries do not even come close to these numbers, the Czech Republic managed to exceed 20,000 EUR. Slovakia closely mimics the Czech Republic but never reaches 20,000 EUR. Hungary and Poland are the last two states, jointly showing the least GNP per capita. Figure 3 illustrates a map suggesting sales ratios per employee in 2021, including the same countries as before.



Figure 3: Sales ratio per employee 2021 in k Euro
Source: Amadeus database

Figure 3 suggests that sales ratios per employee in k Euros in 2021 ranged from less than 100k Euros to more than 400k Euros. The rules of colors are the same as in the previous example. The Czech Republic occupies the last place, the only country with a ratio of less than 100k EUR. Germany ranks second from the end, slightly exceeding 100 k EUR, followed by Poland, amounting to 200 k EUR. Austria and Hungary peaked at about 250k EUR. Slovakia is the clear winner, topping 400k EUR for a sale ratio per employee. Figure 4 depicts the sales ratio per employee from 2012 to 2021 in k Euros, including the analyzed countries and the EU.

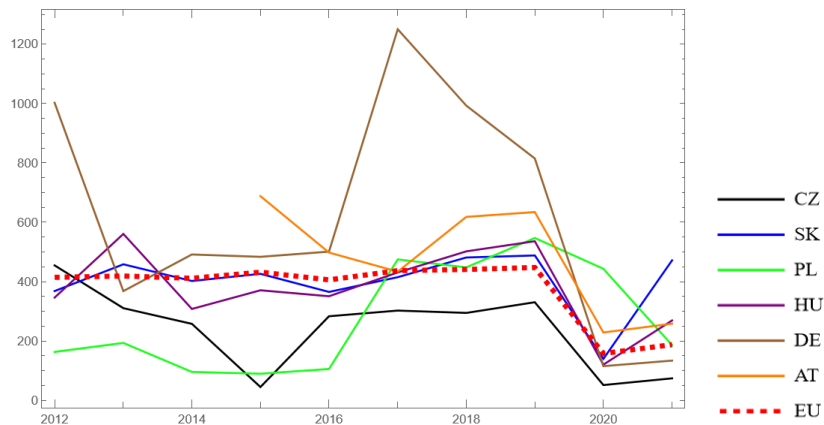


Figure 4: Sales ratio per employee in 2012-2021 in k Euros
 Source: Amadeus database

Different colors of the curves show the ratio movement of the given countries. X marks years, while Y is the amount in k Euros. We can see that all courses are inconsistent, especially Germany, whose maximum exceeds 1,200 k EUR and the minimum goes below 200 k EUR. The Czech Republic reached the trough, about 50k EUR. Other curves are also highly unstable, ranging between 60k EUR and 700k EUR. The map in Figure 5 suggests the return on assets in percent in designated countries in 2021.



Figure 5: Return on assets in 2021
 Source: Amadeus database

The colors respect the same rule as in the previous examples. Darker colors mean higher returns on assets. The map scale ranges from -4% to 6%. Germany is the undeniable loser, reaching values of -4%. Other countries are almost consistent.

Poland, Slovakia, and Austria peak at 2-3%, while The Czech Republic and Hungary top 6%. Figure 6 illustrates the return on assets in percent from 2012 to 2021, including the European Union.

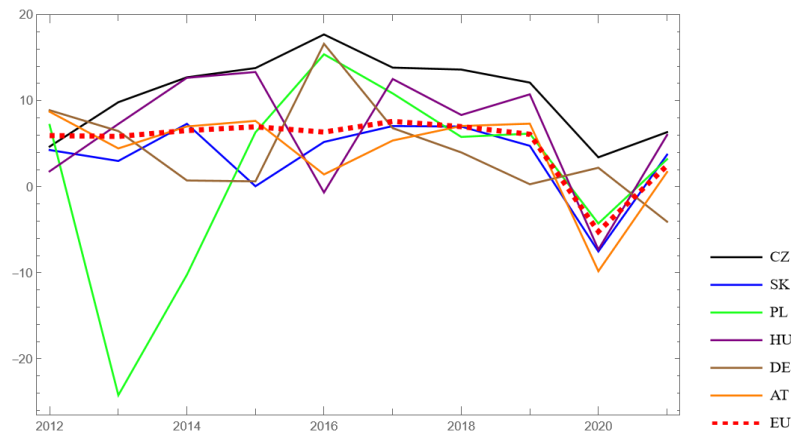


Figure 6: Return on assets in per cent in 2012-2021
Source: Amadeus database

Different colors illustrate the return on assets of separate countries, where X marks years and Y ROS percent. We can see that all curves are highly unstable. For example, Poland, which plummeted almost to -30% in 2013, soared dramatically until 2016, reaching 15% of ROA. As of then, the country saw a steady decline with a slight growth in 2020. The Czech Republic reached the maximum, topping almost 20%. All the other curves range from -9% to about 16%. Strangely enough, although all the states, except for Germany, slumped significantly in 2020, some peaking at -10%, they managed to rally the year after. Figure 7 suggests the return on assets in percent in designated countries in 2021.



Figure 7: Return on sales in 2021
Source: Amadeus database

The rule of colors is the same. Hues get darker with growing values. The return on sales ranges from -20% to 5%, where only Austria hit the trough of -20%. Germany is better by 5%, indicating about -15%. Other countries are approximately the same. Slovakia and Poland show about 5%, slightly losing to Hungary and The Czech Republic, the only states which are in the black.

Figure 8 depicts the return on sales in percent from 2012 to 2021.

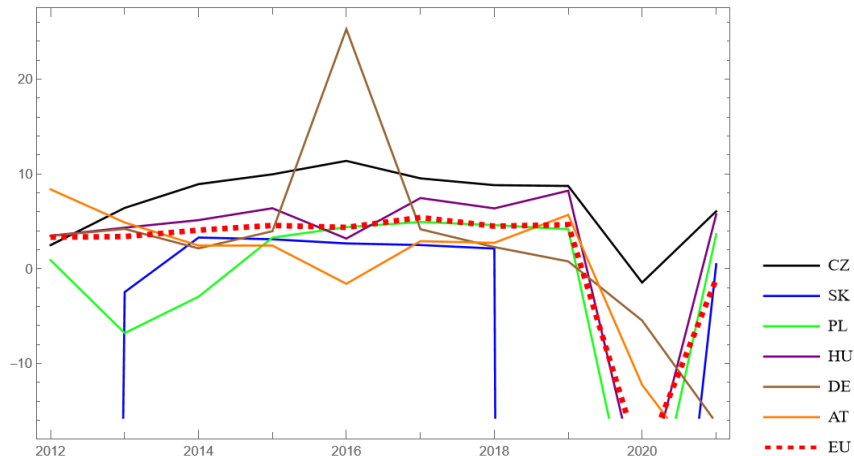


Figure 8: Return on sales in 2012-2021
 Source: Amadeus database

In this Figure, the vertical axis suggests the return on sales in percent, whereas the horizontal years. We can see that the return on sales profoundly changed in all countries through the years. Germany witnessed the highest ROS in 2016, indicating the highest growth of all analyzed states. What also stands out is Slovakia, showing a constant movement slightly above zero from 2014 to 2017. Strangely enough, in 2020, most countries saw a slump to experience an increase in the following year. The map in Figure 9 shows the return on equity in percent in 2021.



Figure 9: Return on equity in percent in 2021
Source: Amadeus database

Only Hungary saw the return on equity drop below 0%, slightly falling behind The Czech Republic, Slovakia, and Austria, where ROE peaked a little above zero. Poland ranks fifth, displaying an ROE of more than 100% higher than Hungary. Germany is the runaway winner, indicating values of about 300%. Figure 10 suggests the return on equity in percent from 2012 to 2021.

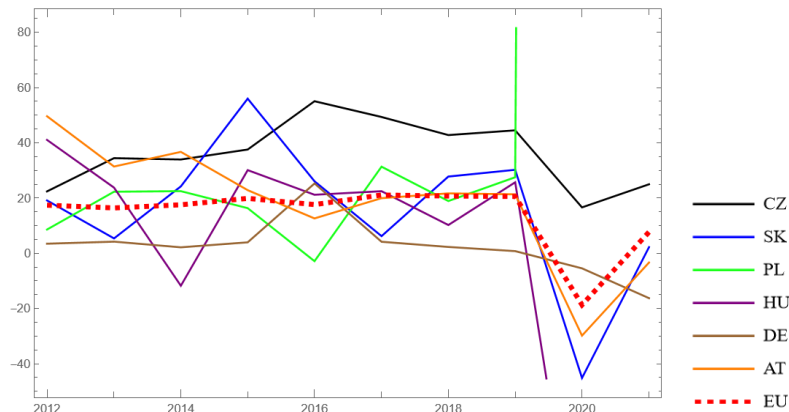


Figure 10: Return on equity in percent in 2012-2021
Source: Amadeus database

The y-axis shows the return on equity in percent, while the x suggests years (2012-2021). Colored curves distinguish the returns of individual countries, where the EU is a red dashed line. We may see that the EU course is the only constant, declining slightly only in 2020, like other countries. Slovakia indicates the polar extremes, ranging from about 50% to almost 60%. Hungary hits the trough, witnessing its ROE fall deep into negative values. Poland tops the maximum from all the

countries, namely in 2019. The map in Figure 11 illustrates the current cash flow of the analyzed countries in 2021.



Figure 11. Current cash flow in 2021

Source: Amadeus database

In this map, the current cash flow ranges from 0 to 1,500. We can see that most countries reach the lowest limits (zero), including Poland, The Czech Republic, Slovakia, Hungary, and Austria, with the latest narrowly defeating the others. Germany hits the opposite pole, indicating current cash flows of about 1,500.

Figure 12 depicts the current cash flow from 2012 to 2021.

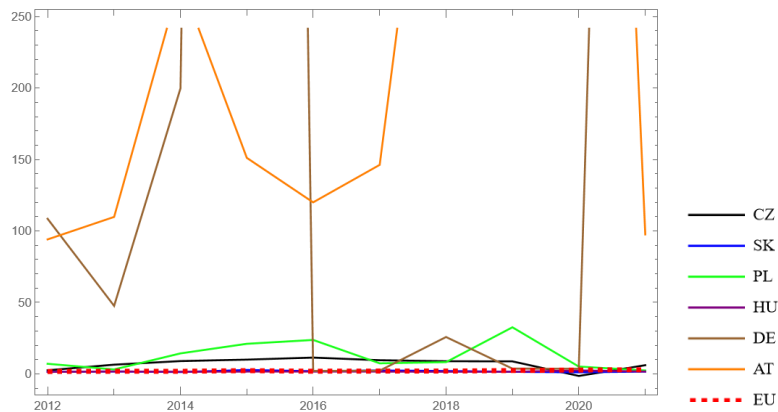


Figure 12: Current cash flow in 2012-2021

Source: Amadeus database

The Y-axis suggests the current cash flow, while X separates the years (2012-2021). Colored curves track current cash flows, where the red dashed line represents the EU. We may see that the Figure comprises two groups. The first one, which includes Germany and Austria, shows highly variable curves. The former

country begins at slightly below 100, exceeding 250 the following year, declining the next two years, and rising to over 250 in 2016, which lasts until 2020. The second group includes the rest, invariably tracking the trough. The only exception is Poland, which negligibly rose in 2016 and 2019. A map in Figure 13 shows a quick cash flow in 2021.



Figure 13: Quick cash flow in 2021
Source: Amadeus database

In the map, quick cash flows range from 25 to 125. The Czech Republic, Poland, Slovakia and Hungary demonstrate 25, the lowest value. Austria ranks second, indicating 75. Germany is the clear winner, topping 125. Figure 14 illustrates the movement of the quick cash flow from 2012 to 2021.

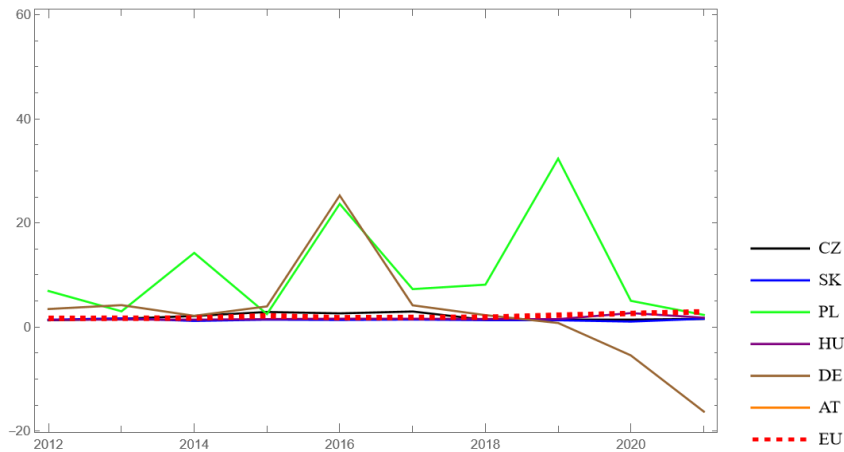


Figure 14: Quick cash flow in 2012-2021
Source: Amadeus database

The vertical axis illustrates quick cash flows and the horizontal years (2012-2021) using colored curves. We can see that the countries form two groups. The first includes Poland and Germany, showing a highly unsteady movement. Poland displays enormous year-to-year variations, almost hitting zero in 2015 and topping 35 in 2019. The country saw two sharp fluctuations, dramatically soaring in 2016 and plummeting in 2019. The other states, which comprise the second group, remain highly consistent, slightly above zero. A map in Figure 15 suggests the overall cash flow in 2021.



Figure 15: Overall cash flow in 2021
Source: Amadeus database

The map of the overall cash flow has very similar colors to the chart illustrating the quick cash flow, yet moving between the interval of 10 and 40. Poland, The Czech Republic, Slovakia, and Hungary show the lowest values, reaching slightly above 10. Dark orange marks Austria, which ranks second, ranging from 20 to 30. The darkest hue belongs to Germany, topping 40 of the overall cash flow. Figure 16 suggests the overall cash flow movement from 2012 to 2021.

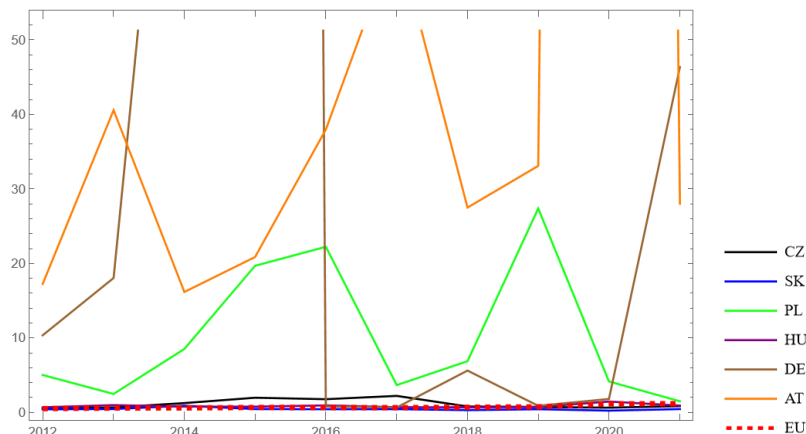


Figure 16: Overall cash flow in 2012-2021
Source: Amadeus database

The Figure depicts the overall cash flow in the analyzed countries. The Y-axis represents the measured quantity, and the X-axis suggests the years (2012-2021), including colorful curves tracking the movement of the given states. We may make out two different groups. The first involves Austria, Germany, and Poland, which show violent fluctuations spanning the whole Figure. On the flip side, The Czech Republic, Slovakia, Hungary, and the EU are almost invariable, peaking slightly above zero. The Czech Republic is the only country that witnessed subtle, yet negligible, compared to other states, variations between 2014 and 2018.

Discussion

RQ1: How did financial indicators of the financial soundness of tourism change in selected EU countries between 2012 and 2021?

We can summarize our results according to the indicators and their relationships. The Czech Republic shows sub-par sales ratios per employee compared to the EU average. On the other hand, returns on assets and sales are very high, indicating that Czech tourism can very well evaluate its assets. Although the return on sales slightly declined in 2020, given the COVID-19 pandemic, the values again grew the following year. The return on equity demonstrated minor fluctuations over the period. Although its movement has continuously changed since 2016, the indicators show above-standard values compared to the EU average. The findings also point to remarkably stable cash flows in the tourism of the Czech Republic. The graphical overviews suggest the profound impact of COVID-19 on Czech tourism. Tittelbachová et al., (2022) reveal the adverse effects of the COVID-19 pandemic on foreign and national tourism, badly damaging social and economic sectors, like a massive decline in hotel occupancy rates or Czech tourism and catering incomes. It is clear that financial development positively influences

tourism development (Al-mulali et al., 2020). Fauzel and Seetanah, (2023) also show the same relationship in the case of tourism and financial development.

Slovakia indicates higher sales ratios per employee over the monitored period than The Czech Republic. Although Covid-19 savagely cut the rates, the country quickly restored its earlier values. Unlike the Czech Republic, the returns on assets and sales are below the EU average. Although the return on equity shows violent fluctuations over the period, all measured cash flows are highly stable, like the Czech Republic. The findings also suggest that preventive measures adopted by Slovakia seriously harmed Slovakian tourism.

The same scenario unfolds in Poland. The COVID-19 pandemic produced severe fluctuations in tourism, returns on sales and equity, and overall and quick cash flows. These findings are in line with the results by Lin et al., (2022).

Hungary hits par in most indicators compared to the EU average. Returns on equity and assets are the only exceptions, displaying local fluctuations. Given the adverse effects of the COVID-19 pandemic on Hungarian tourism, the country should focus on generating higher profits and appreciating assets.

Although Germany demonstrates striking variations in sales ratios per employee, its values are the highest of all the countries and far above the EU average. The state does not indicate high return rates, except for the return on sales in 2016, when its values topped 30%. Germany maintains remarkably high cash flows, indicating no severe harm to tourism caused by the pandemic.

Austrian return rates are closer to the EU average than German values. The current and overall cash flows maintain very high levels, showing marked variations. On the flip side, the quick cash flow is invariable and closely tracks the EU average.

RQ2: What is the best strategy for tourism development?

The discussed findings summarize the future strategy of the service sector of the analyzed countries. Czech tourism should boost sales ratios per employee. The viable options are either downsizing or increasing sales. If the demand is already covered, staff cuts are the best solution. Slovakia must stabilize or steadily raise return rates, cash flow, and sales ratios per employee. Matijová et al. (2019) suggest exploring the prices of goods and services and creating a healthy environment using effective tourism strategies to attract new employees. Poland needs to try to counterbalance or increase return rates, cash flow, and sales ratios per employee.

A solution for Hungary is to enhance cash flows, stabilizing the return on assets and equity. Germany and Austria are the runaway winners regarding the GNP per capita and overall and current cash flows. Ideally, the countries could gently slow the cash flow, channeling their energy to the return on assets and equity. This observation is consistent with the findings of García-Gómez et al., (2022), González-Torres et al., (2021), and Malkina and Ovcharov (2021).

Conclusion

The article aimed to evaluate indicators of the tourism financial development in the selected EU countries between 2012 and 2021, suggesting the best strategy for further promotion. We successfully fulfilled our research aims, using the return on assets (total capital), equity, sales, sales ratios per employee, quick, current, and overall cash flow. We may consider tourism in Central Europe satisfactory. All the countries, except Poland and The Czech Republic, show above-average sales ratios per employee compared to the EU. Return rates rank slightly lower, where about one-half of the states indicate below and the other above-average values on the scale of the EU. The Czech Republic should inspect employment rates in tourism to either cut them down or boost sales. If enterprises have already met the demand, downsizing is the best solution. Slovakia, Poland, and Hungary should jointly stabilize or steadily raise the return rates. Since Germany and Austria benefit from high GNP per capita, they could reduce their cash flows and try to boost the return on assets and equity. Our study lacks enough input data, dealing with inconsistent annual numbers of companies. On top of that, the sample does not structurally match the country's population. Despite these deficiencies, the survey is informative and may give guidelines about stabilizing tourism. The follow-up research should then explore tourism in a broader macroeconomic context.

Acknowledgments

This research was supported by the Scientific Grant Agency of the Ministry of Education, Science, Research, and Sport of the Slovak Republic and the Slovak Academy of Sciences as part of the research project VEGA No. 1/0590/22: "Exploration of the natural, social and economic potential of areas with environmental burdens in the Slovak Republic for the development of specific forms of domestic tourism and quantification of environmental risks".

References

- Akay, B., (2022). The Relationship between Tourism Development, Satisfaction, Support to Tourism and Tourism Entrepreneurship in Emerging Tourism Destination: Residents' Perspective. *Journal of Tourism Management Research*, 9, 64–81.
- Al-mulali, U., Solarin, S. and Gholipour, H., (2020). Relationship between financial development and inbound tourism: A revisit. *Journal of Public Affairs*, 21, e2233.
- Cappellano, F., Kurowska-Pysz, J. (2020). The Mission-Oriented Approach for (Cross-Border) Regional Development. *Sustainability*, 12 (12), 5181.
- Carrillo-Hidalgo, I., Pulido-Fernández, J. I., (2019). Is the financing of tourism by international financial institutions inclusive? A proposal for measurement. *Current Issues in Tourism*, 22(3), 330–356.

- Fauzel, S., Seetanah, B., (2023). Does financial development spur tourism growth? A dynamic time series analysis for the case of an SIDS. *Journal of Policy Research in Tourism, Leisure and Events*, 15(1), 52–68.
- García-Gómez, C. D., Demir, E., Chen, M.-H. and Díez-Esteban, J. M., (2022). Understanding the effects of economic policy uncertainty on US tourism firms performance. *Tourism Economics*, 28(5), 1174–1192.
- Goh, E., Roni, S. M. and Bannigidmath, D., (2022). Thomas Cook(ed): Using Altman's z-score analysis to examine predictors of financial bankruptcy in tourism and hospitality businesses. *Asia Pacific Journal of Marketing and Logistics*, 34(3), 475-487.
- Gomes, C., Oliveira, F., (2021). The tourism intermediaries' profitability in Portugal and Spain—differences and similarities. *Journal of Hospitality and Tourism Insights*, ahead-of-print.
- González-Torres, T., Rodríguez-Sánchez, J.-L. and Pelechano-Barahona, E., (2021). Managing relationships in the Tourism Supply Chain to overcome epidemic outbreaks: The case of COVID-19 and the hospitality industry in Spain. *International Journal of Hospitality Management*, 92, 102733.
- Higgins-Desbiolles, F., Bigby, B. C. and Doering, A., (2021). Socialising tourism after COVID-19: Reclaiming tourism as a social force? *Journal of Tourism Futures*, 8(2), 208–219.
- Jaramillo-Moreno, B. C., Sánchez-Cueva, I. P., Tinizaray-Tituana, D. G., Narváez, J. C., Cabanilla-Vásquez, E. A., Muñoz Torrecillas, M. J. and Cruz Rambaud, S., (2020). Diagnosis of Administrative and Financial Processes in Community-Based Tourism Enterprises in Ecuador. *Sustainability*, 12(17), 7123.
- Khanna, R., Sharma, C., (2021). Does Financial Development Raise Tourism Demand? A Cross-Country Panel Evidence. *Journal of Hospitality and Tourism Research*, 47(6), 1040-1070.
- Kirilenko, A., Ma, S., Stepchenkova, S., Su, L. and Waddell, T., (2021). Detecting Early Signs of Overtourism: Bringing Together Indicators of Tourism Development With Data Fusion. *Journal of Travel Research*, 62(2), 382-398.
- Lin, L.-Y., Tsai, C.-C. and Lee, J.-Y., (2022). A Study on the Trends of the Global Cruise Tourism Industry, Sustainable Development, and the Impacts of the COVID-19 Pandemic. *Sustainability*, 14(11), 6890.
- Lopata, A., Gudas, S., Butleris, R., Rudžionis, V., Žioba, L., Veitaitė, I., Dilijonas, D., Grišius, E. and Zwitterloot, M., (2022). Financial Data Anomaly Discovery Using Behavioral Change Indicators. *Electronics*, 11, 1598.
- Malkina, M., Ovcharov, A., (2021). Tourism Industry Stress Index and Its Relationship To The Financial Stress Index. *Tourism and Hospitality Management*, 27(2), 363–383.
- Marques, C., Guedes, A. and Bento, R., (2022). Tracking changes in tourism demand with point-of-sale data: The case of Portugal. *Tourism and Hospitality Research*, 23(1), 101-107.
- Matijová, M., Onuferová, E., Rigelský, M. and Stanko, V., (2019). Impact of Selected Indicators of Tourism Capacity and Performance in the Context of the Unemployment Rate in Slovakia. *Journal of Tourism and Services*, 10(19), 1-23.
- Milenkovic, N., Andrašić, J. and Andrašić, S., (2019). *Hotel specific determinants of liquidity-evidence from the hotels in ap vojvodina* (pp. 123–137).

- Myakshin, V. N., Shaparov, A. E. and Tikhanova, D. V., (2021). Improving the Assessment of the Tourism Potential of the Russian Arctic. *Ekonomika Regiona = Economy of Regions, 1*, 235–248.
- Rodríguez-Fernández, M., Sánchez-Teba, E. M., López-Toro, A. A. and Borrego-Domínguez, S., (2019). Influence of ESGC Indicators on Financial Performance of Listed Travel and Leisure Companies. *Sustainability, 11*(19), 5529.
- Scheyvens, R., Biddulph, R., (2017). Inclusive tourism development. *Tourism Geographies, 20*, 1–21.
- Shahbaz, M., Benkraiem, R., Miloudi, A. and Tiwari, A., (2018). Tourism-induced financial development in Malaysia: New evidence from the tourism development index. *Tourism Economics, 25*(5), 757-778.
- Tittelbachová, Š., Čajková, A., Lukáč, M. and Lžičař, P., (2022). Impact of the COVID-19 pandemic on tourism in the Czech Republic. *Terra Economicus, 20*, 133–145.
- Zemla, S., Sinković, D. and Zemla, N., (2022). *Monitoring of Economic Indicators in the Context of Financial and Economic Crises, 16*(1), 61-87.
- Zhang, D., Xie, J. and Sikveland, M., (2021). Tourism seasonality and hotel firms' financial performance: Evidence from Norway. *Current Issues in Tourism, 24*(21), 3021–3039.

WPLYW PANDEMII COVID-19 NA ZARZĄDZANIE TURYSTYKĄ W KRAJACH GRUPY WYSZEHRADZKIEJ (V4)

Streszczenie: Koszty są nieodłącznym elementem wszystkich aspektów funkcjonowania każdego przedsiębiorstwa. Jednymi z najbardziej zauważalnych kosztów prowadzenia działalności są koszty związane z magazynowaniem, transportem, dystrybucją i zarządzaniem produktami firmy. W tym przypadku te koszty mogą być znacznie zredukowane poprzez korzystanie z usług centrów logistycznych, które specjalizują się w handlu wszelkiego rodzaju towarami. Celem artykułu jest pokazanie, w jaki sposób przeniesienie zaopatrzenia logistycznego z centrum dystrybucyjnego przyczynia się do obniżenia kosztów ponoszonych przez przedsiębiorstwo, usprawnienia jego działania i optymalizacji procesów zarządzania. Pojawienie się pandemii COVID-19 na początku 2020 roku spowodowało znaczne zakłócenia w działalności przedsiębiorstw na całym świecie, a żadna branża nie ucierpiała bardziej niż przemysł turystyczny. Niniejsze badanie analizuje zróżnicowane metody reakcji i środki zarządzania stosowane przez państwa Grupy Wyszehradzkiej (V4) - Czechy, Słowację, Polskę i Węgry - w radzeniu sobie z wyzwaniami stawianymi przez pandemię w przedsiębiorstwach turystycznych. Pomimo pewnych ograniczeń w danych, nowatorskość badania polega na gruntownej ocenie wskaźników finansowych rozwoju turystyki w wybranych krajach UE od 2012 do 2021 roku, oferując strategię dostosowaną do profilu gospodarczego każdego kraju oraz dostarczając cennych spostrzeżeń umożliwiających stabilizację branży turystycznej. Co więcej, niniejsze badanie ma na celu odkrycie najlepszych praktyk i strategicznych spostrzeżeń zaczerpniętych z doświadczeń krajów V4, zapewniając kontekstowy plan przyszłego zarządzania kryzysowego w sektorze turystycznym. Wyniki nie tylko wnoszą wkład w naukową debatę na temat odporności na kryzys w sektorze turystycznym, ale także dostarczają konkretnych porad dla decydentów, interesariuszy branżowych i menedżerów ośrodków zajmujących się długoterminowymi skutkami pandemii.

Słowa kluczowe: turystyka; covid-19; wskaźniki finansowe; strategia dalszego rozwoju