

FINANCIAL PERFORMANCE OF TOURISM COMPANIES IN ROMANIA

Lőrincz Annamária

Abstract

The study presents and analyses the performance of NACE 5510 (Hotels and other accommodation services) for the period of 2018-2022. Due to the specificities of the sector, the measurement can be done from several perspectives, in this research we will first look at the sector-specific indicators, followed by the financial analysis. In real terms, the sector will have caught up with 2018 in terms of turnover by 2022, but will not have yet reached 2019 levels, as can be forecasted on the basis of the number of overnight stays. This result is due to the importance of domestic tourism.

Due to the inhomogeneity identified in the basic statistical analysis, the companies' financial analysis is discussed at cluster level, using the EMIS database (N=791). Clusters are based on five-year averages of ROA, ROE, ROS profitability ratios. The results distinguish seven clusters that are statistically significantly different (Kruskal-Wallis test), which can be classified into three groups based on pairwise comparisons (Dunn test) as good, medium and relatively poor performers.

Keywords: financial performance, cluster analysis, tourism, accommodation, Romania

JEL: G30, Z32, L83

Introduction

The importance of measuring the performance of tourism industry is due to its economic impact, which is reflected in the value of the gross domestic product generated by the industry and the number of people employed. In addition, tourism sector can be considered a significant export item, thereby increasing the economy (Dedkova - Gudkov, 2020) . It has multiple economic links to other economic sectors, so that economic effects are mutually manifested between them (Arie - Nagy, 2023), whether negative or positive (Dedkova - Gudkov, 2020) , i.e. a further spill-over effect.

Before the COVID-19 crisis, the global tourism sector accounted for 10.3% of global GDP. It directly and indirectly provided jobs to 333 million people (WTTC, 2019), representing 9.9% of global employment. At the EU level, similar macroeconomic data are available, with the sector representing 9.5% of GDP and employing 11.2% of the active labour force (UNWTO, 2019). In 2019, the sector contributed 6% to GDP (WTTC, 2022). In terms of labour market data for 2019, the sector represented 6.7% of the national economy's workforce, i.e. 568,000 workers. During this period, it was considered one of the most dynamic sectors in Romania (Droj et al., 2021; Droj - Droj, 2021).

Measuring its performance is inherently challenging with key questions focusing on how and what to measure. Based on literature sources, measurement is a story in terms of several aspects, such as efficiency, labour productivity, sector-specific indicators, competitiveness and performance measurement in further perspective, and the use of composite indices is also suggested (Droj et al., 2021) , focusing on Central and Eastern European countries. The index proposed in the specialized literature combines the most relevant profitability indicators: ROE, ROA, ROS, which are of significant importance for the sector (Panno, 2019) and the solvency indicator.

With the evolution of the performance measurement methodology, the focus has shifted beyond financial indicators to new factors that, together, bring us closer to the real picture, such as carbon reduction, green practices, eco-tourism, online consumer reviews, e-commerce success, corporate social responsibility, consumer satisfaction. The trade-off between sustainability and competitiveness also arises (Streimikiene et al. ., 2020, Alreahi et al, 2023)

The chosen literature emphasises that the focus of performance measurement systems is on budget control, revenue enhancement control, customer relationship management. The primary focus is on high quality service delivery in this area.

Based on a bibliometric analysis on the topic, the measurement of tourism performance can be identified at three levels, at the firm level, at the cluster level and at the destination level (Sainaghi et al., 2017) . The two key factors that most determine the performance of these companies are the location of the enterprise and the quality of the destination and the internal resources available to the organization (Molina-Azorin et al., 2010) . This research focuses on the cluster level, one of the three levels of analysis for accommodation companies in Romania.

The sector under study has faced, and continues to face, several challenges, such as the economic crisis induced by the COVID-19 health crisis, labour shortages, significant increases in food, energy, and fuel prices, supply chain disruptions, and ongoing geopolitical conflicts. These impacts have affected all businesses (Nugroho et al., 2024), with a concentrated impact on the performance of tourism businesses (Donthu - Gustafsson, 2020; Droj - Droj, 2021; Kumar, 2021; Mihalciuc, 2022; Nguyễn Thị Xuân, 2022) . Despite digitalisation being accelerated during this period (Farkas et al, 2022) it could not provide a concrete solution for the sector. By 2020, the sector's contribution to global GDP decreased by 50.4%, and by 44.6% in Romania (WTTC, 2022). As in the number of people employed, this decrease was also noticeable with 11.5%. By 2021, at the beginning of the recovery from the crisis, the sector started to grow, in Romania by 14.9% (WTTC, 2022). By 2022, it reached 5.5%. In 2023, it contributed 5.5% to the gross domestic product (WTTC, 2023).

These dramatic changes were also reflected in financial performance indicators at company level, showing significant downturns. In a crisis situation, the importance of corporate financial analysis, measuring and evaluating business performance, and the related identification and understanding of the factors affecting performance, becomes even more important for both internal and external stakeholders of the organisation. Up-to-date analysis and monitoring become essential for survival in a market environment with similar risks.

Developing a comprehensive strategic plan, setting specific targets is important to improve performance. The recession can be seen as a test of the strengths and weaknesses of organisational functioning, but the key lesson that businesses need to learn is resilience. In turn, government support is essential for catching up (Mihalciuc, 2022) . The coming period will be about catching up, an important question for future research is how the industry has evolved and is continuing to change in response to these factors, and what innovations have emerged (Donthu - Gustafsson, 2020).

According to the specialized literature, the development of a model for the introduction of authentic gastronomic cultural heritage (Bujdosó, 2016, Bunja - Kaplan, 2020) could be an innovation in the tourism market, as well as a quality management information system and corporate governance system. Jawabreh et al. (2022) in their research investigated the quality of information systems in hotels. The general quality of the system was determined by the quality of the information it outputs, namely, the extent to which the information it provides meets the needs of management and helps in planning decision making, thereby contributing to higher business performance (Jawabreh et al., 2022) Based on the results of the research, the most important aspect is the timely

availability of relevant information (Ali - Oudat, 2021; Balia et al., 2020) , which supports the process of achieving corporate goals. Thanks to the digital evolution, these systems are becoming more widespread and more strategic, providing a resource for managers in the decision-making process. Helping to achieve higher financial performance (Alawamleh - Ali, 2022) , as they can have a significant impact on improving the performance of hotels in this area.

Companies in the tourism industry should also focus on producing sound economic and financial analyses that provide useful information for management in preparing decisions. And the introduction of continuous monitoring can contribute to sustainable development, which is the supporting informative role of this study.

The main objective of the research is to examine the performance of hotels and other accommodation establishments over the period of 2018-2022, based on financial indicators and sector-specific metrics. The research question is whether the sector has been able to catch up in real terms with pre-COVID performance levels along sector-specific indicators? What are the structural characteristics of clusters formed along financial performance indicators? Are clusters of relatively good, average and poor performers distinguished? What differences and similarities can be identified between clusters?

The state of tourism in Romania

In my research, I focus on the group of companies in the CAEN national activity class 55, which includes hotels and other accommodation providers. In what follows, I present the situation of this segment, analysing its main indicators over the last five years 2018-2022. After all, the success of tourism can in many cases be measured in terms of the indicators presented below, such as the number of guest nights (Jayawardena - Ramajeasingh, 2003) .

In terms of the sector's turnover, 2019 was a particularly successful year, reaching 8160 million lei. As mentioned in the articles, the drastic decline in 2020 (Donthu - Gustafsson, 2020; Droj - Droj, 2021; Kumar, 2021; Mihalciuc, 2022; Nguyễn Thị Xuân, 2022) was 39% in terms of turnover. In the period of 2021-2022, the recovery process began, with a 41% increase in turnover in 2021 and 27% in 2022. However, it is important to stress that these values should be understood in nominal terms. In real terms, the sector's turnover in 2022 exceeds the 2018 level, but not the 2019 level in real terms. This conclusion can be seen when studying the number of nights spent, since the level of this figure has not caught up with the 2019 level, see Figure 1.

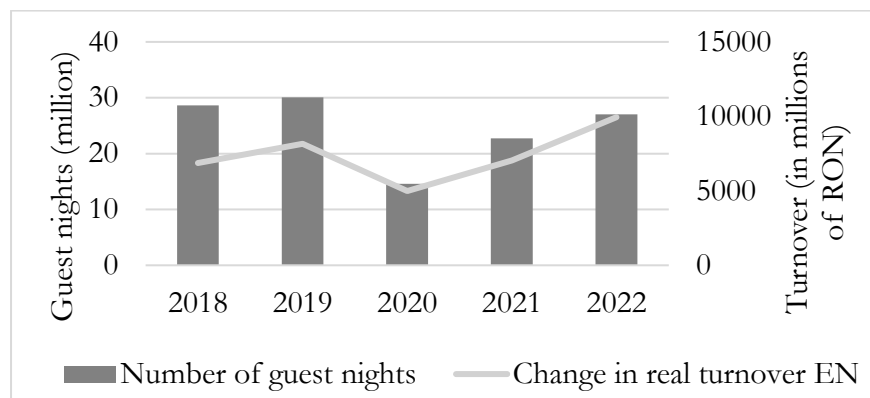


Figure 1: Number of guest nights and evolution of nominal revenue (million nights; million RON)

Source: based on EDEMOS.INNE 2023

The number of overnight stays fell by 52% in 2020, before rising by 56% and 19% respectively (INSSE, 2023).

81-82% of the people using the service are Romanian and 19-18% are foreign nationalities in 2018-2019. By 2020-2021, the share of foreign citizens had dropped to 7-8%. By 2022, the ratio of domestic to foreign tourists was 86%/14%, so the number of foreign tourists was still below the 2019 figures, but in this area too, the catching-up to normality had started. On average, 94% of foreign tourists come from Europe. In the period studied, the four most frequent countries from which tourists arrive in the country are Moldova with an average weight of 19%, Bulgaria 17%, Ukraine 16% (due to the war conflict in 2022, Ukrainian citizens represented 26%), Hungary 10%. During this period, tourists preferred to travel domestically, as shown by the data (Orîndaru et al., 2021), which in turn had a strengthening effect on the domestic industry.

In terms of capacity, which refers to the number of accommodation places available in the country, there has been a 4% increase over the last 5 years, see Figure 2. However, during COVID-19's influence, the expansion did not even reach 1%, which is understandable given the economic circumstances.

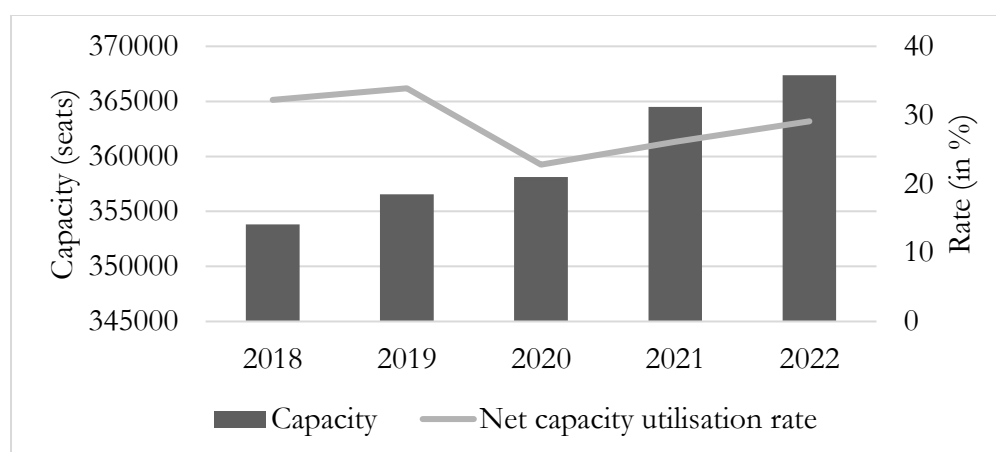


Figure 2: Capacity, capacity utilisation (places; %)

Source: based on INSSE 2023

However, when examining the utilization of capacity, it is evident that companies should focus their resources on developing this area. The utilization rate is below 35%, with a peak of 34% in 2019. The sector under study saw a 33% drop in 2020, with a 28% increase by 2022, but still 5 percentage points below the 2019 level.

For companies in the CAEN 5510 activity class only, hotels and other accommodation establishments, the average occupancy rate is 36%, which is 7% points higher than for the sector as a whole. In terms of this factor, hotels are catching up faster, with a 28% increase compared to a decline in 2020, and a 20% increase in 2021 compared to a 14% increase for the total sector.

For the sector, I found it important to look at the difference between the number of new businesses and the number of closed businesses, due to the crisis period. Is there a significant decline? The data show that the lowest number of closures occurred in 2020, but that by 2021 the number of closures will have increased by 46% compared to the previous year. So the impact of the recession is later in terms of the number of businesses. However, the propensity to start a business has also increased thereafter.

Specifically, in terms of the total number of businesses in the indicated field of activity, there is dynamic growth, with entrepreneurs seeing economic opportunities in this area, see Figure 3. The number of companies operating in this sector has increased by 27% compared to 2018.

In my research, I analyse how the dynamics of the evolution of statistical data in the sector over a five-year period is reflected in the accounting reports and financial performance of companies.

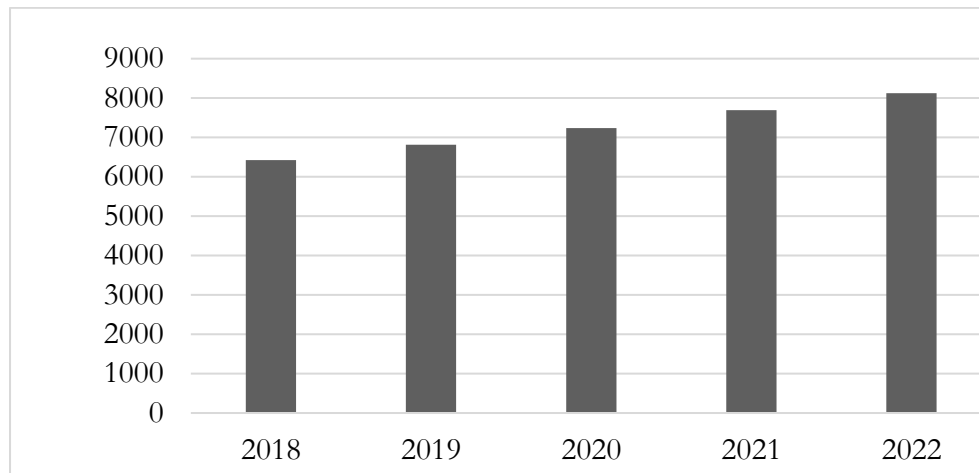


Figure 3: Number of companies (pcs)

Source: EDEMOS.INSSE 2023 based

According to Orîndaru et al., (2021), COVID-19 has and will have a significant effect on travel behaviour in the short to medium term. Businesses should plan with this information in mind (Orîndaru et al., 2021).

Based on Euromonitor (2023), retail sales in accommodation increased by 24% at current prices to 2023, bringing revenues to RON 7.4 billion. In 2023, the most prominent leading player is Bucuresti Turism SA, as it will have a 2.93% share of the market in retail value terms by 2023. The sector is expected to grow at a compound annual growth rate (CAGR) of 9%.

However, the market is not overly concentrated, as the market share of the top eight companies is less than 3% each, with Wyndham Worldwide Corp 2.86%, Marriott International In. 2.57%, Hilton Worldwide Holdings 2.52%, Continental Hotels SA 2.29%, Accor Hotels Romania SRL 2.26%, Turism Felix Sa 1.96%, Unita Turism Holding SA 1.69% and the rest 80.92%. The number of micro and small companies operating in the sector can be considered quite high (Droj et al., 2021).

Materials and methods

In my research, I focus on the group of companies belonging to the CAEN 5510 class of economic activities in Romania, which includes hotels and other accommodation services, which can be mapped to NACE group 5510. Financial accounting data for the analysis were provided by the EMIS database. The database analysed included companies with an annual turnover of over 1 million USD that had a financial statement for each year under review, totaling 791 companies. Companies that were outliers in terms of their profitability indicators were excluded. The outliers were filtered out using the boxplot chart of the SPSS data analysis and statistical software. The total number of companies used in the analysis is thus 717.

I started the statistical analysis of the database by calculating the basic statistical indicators using the SPSS, Microsoft Excel software package. Based on my analysis, the database cannot be called homogeneous or normally distributed. In order to analyse the companies efficiently, I applied the clustering technique, which is recommended and widely used in literature. The essence of the method is to form homogeneous groups where the variance within the groups is low, while the variance between the groups is high. This method helps to identify important differences and similarities.

To form homogeneous clusters, key indicators were identified based on the research objectives. According to the specialized literature, these indicators—ROS, ROA, and ROE—are suitable for a broad representation of financial performance. (Dang et al., 2024; Danso et al, 2020; Neacșu - Georgescu, 2024, Rákos et al., 2022) . An integrated analysis of these three indicators provides a comprehensive picture of cost management, asset management efficiency and the mix of funding sources, which are key factors in optimising operations.

Determining the ideal number of clusters is a key step, as it has a major impact on the results obtained (Herman et al., 2022) . The selection process can be based on prior assumptions, theory-based assumptions or other tests. These can be dendrograms for hierarchical cluster analysis (Ward's method and quadratic Euclidean distance), cluster validity indices (Süle, 2019) , cluster books (Deb - Lee, 2018) .

Based on the methodology, I use two types of methods at the same time. Firstly, I use a hierarchical technique (Ward's procedure) to determine the ideal number of clusters, midpoints and outliers, and then I cluster the database after cleaning the outliers. Figure 4 displays the results of the Elbow method applied to determine the number of clusters.

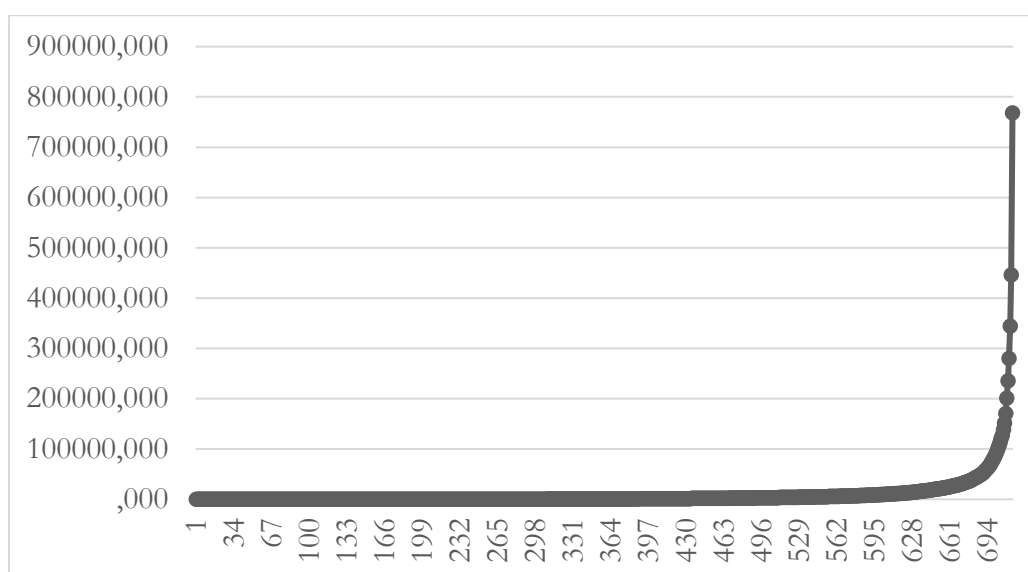


Figure 4. Number of clusters based on the Elbow method

Source: own editing, based on own calculations.

The horizontal axis shows the line numbers while the vertical axis shows the values of the coefficients (agglomeration schedule table). The graph shows where the larger breaks are, to be used as an elbow criterion. Based on this, the ideal number of clusters is seven, confirmed by the dendrogram see Figure 5.

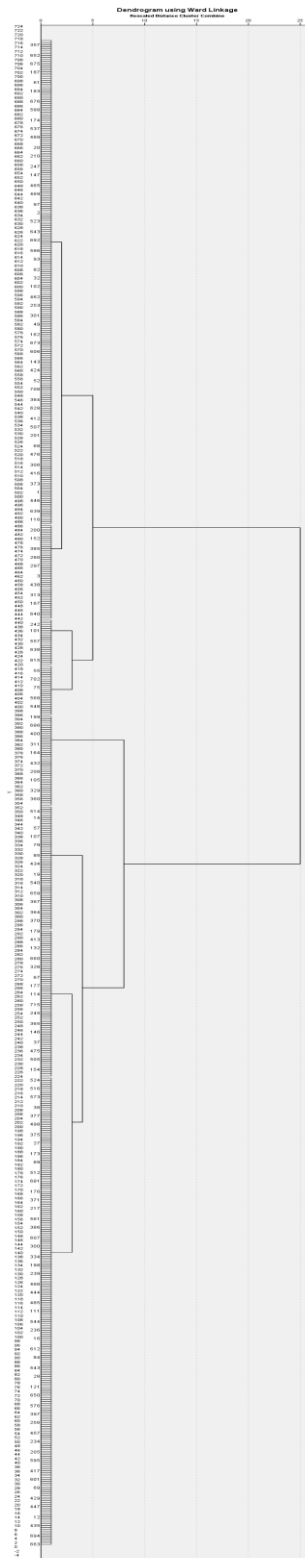


Figure 5: Dendrogram using the Ward Linkage method

Source: own editing, based on own calculations.

As a second step, I apply the K-medoid clustering method recommended in my chosen specialized literature based on ROS, ROA, ROE profitability indicators for the analysis (Fenyves et al., 2020). The method utilizes representative objects as reference points instead of calculating the average value of objects within each cluster (Velmurugan - Santhanam, 2010). The K-medoid technique groups data based on the distance between data points and clusters, and it can offer a more balanced clustering since it selects an actual data point from the database as the central element (Fenyves et al., 2020). This method organizes the entities in a dataset by assessing the distances between the data points.

It is crucial to note that clustering methods can be influenced by outliers, so it is necessary to perform data cleaning beforehand to identify and exclude them in order to avoid bias in the results.

Identification was performed using the Box Plot diagram, with data point outside the 1.5 times interquartile range (IQR) considered outliers. Thus, the lower bound is $Q1 - 1.5 * IQR$ and the upper bound is $Q3 + 1.5 * IQR$. The values calculated as outliers were between +100% and -100% for ROS, between +60% and -40% for ROA, and between +100% and -100% for ROE. 74 firms were excluded from the analysis. The values of the basic statistical indicators ROA, ROE and ROS of the organisations are presented in Table 1, before and after data cleaning.

Table 1: Descriptive statistics (N = 791) - with outliers and (N = 717) - without outliers

	N = 791			N = 717		
Indicators	ROA	ROE	ROS	ROA	ROE	ROS
Average	6,67	25,67	-0,52	9,41	16,07	11,31
Median	6,76	13,09	11,03	6,76	12,43	11,12
Standard deviation	82,64	116,03	2706,68	11,08	22,70	20,86
Skewness	-26,49	14,76	-10,95	1,14	0,59	-0,71
Kurtosis	730,20	283,95	424,15	2,44	2,90	3,17
Minimum	-2268,78	-409,45	-62332,57	-32,65	-70,88	-82,13
Maximum	173,72	2472,99	41131,00	62,09	99,93	79,08

Source: own editing, based on own calculations.

Results

The aim of the study was to analyse the financial performance of accommodation companies operating in Romania. In agreement with the chosen articles, the most comprehensive and representative indicators of corporate financial performance are profitability indicators. In this regard, the relative indicators ROS - return on sales (to assess cost management), ROA - return on assets (to assess asset efficiency) and ROE - return on equity (to assess the efficiency of invested resources) form the basis of the grouping.

These three indicators and the additional indicators included in the analysis were calculated by using the formulae in Table 4. All variables analysed are numeric (percentage).

The kurtosis and skewness indicators, see Table 1, show that the data series of the companies deviate from the normal distribution according to all three indicators, as confirmed by the normality test, Kolmogorov-Smirnov and Shapiro Wilk test ($p < 0.05$).

Based on the results of the correlation analysis, see Table 2, I conclude that there is a significant positive correlation between all three indicators, pairwise of moderate strength. The highest correlation coefficient is found between ROE and ROA ($r = 0.712^{**}$).

Table 2: Correlation between profitability indicators

Person's correlation coefficient			
	ROA	ROE	ROS
ROA	1	0,712**	0,595**
ROE	0,712**	1	0,472**
ROS	0,595**	0,472**	1
**Correlation is significant at the 0.01 level			

Source: own editing, based on own calculations.

The positive correlation between the three profitability ratios ROS, ROA, and ROE indicates that the level of cost management, asset efficiency, and resource utilization are interconnected, as illustrated in Figure 6.

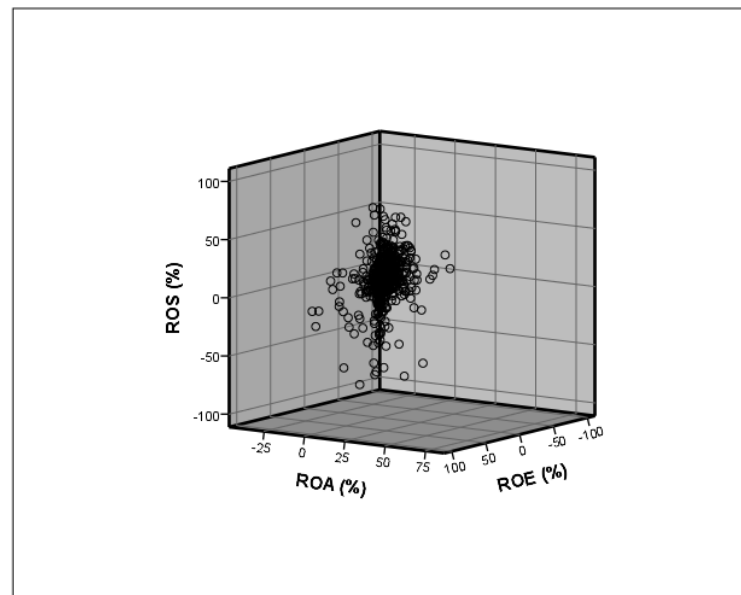


Figure 6 : Relationship between financial performance indicators

Source: own editing, based on own calculations.

As companies do not form a homogeneous group based on their indicators, I concluded that a simple arithmetic average may not provide sufficient information. I therefore divided the entire population of companies into groups, using a cluster analysis method for classification. Using the seven ideal cluster numbers identified above as input data. The clusters were based on five-year (2018-2022) averages of the companies' financial ratios (ROS, ROA, ROE). In order to verify that

I had arrived at clusters that could be considered as really good and acceptable, I performed statistical tests. Since the data was not normally distributed, non-parametric tests such as the Kruskal-Wallis and Dunn's tests were applied. Based on the Kruskal-Wallis test, the clusters were significantly different from each other according to all three indicators, see Table 3. The within-cluster standard deviation values are also lower than the standard deviation within the whole sample.

Table 3: Kruskal-Wallis test of clusters based on profitability indicators

Indicators	Kruskal-Wallis test	df	p
ROA (%)	439,90	6	**
ROE (%)	523,90	6	**
ROS (%)	438,33	6	**
**Test statistic is significant at the 0.01 level			

Source: own editing, based on own calculations.

To investigate the causes of stochastic dominance, I used Dunn's test. Based on pairwise comparisons, the companies can be classified into three categories: high, medium, and low performers. Cluster three, cluster four, cluster six represent relatively high performers, which account for 35.43% of the total population. Cluster one represents medium performers with 50.21%, while the low performers' group includes cluster two, cluster five and cluster seven, which account for 14.36% of the total population.

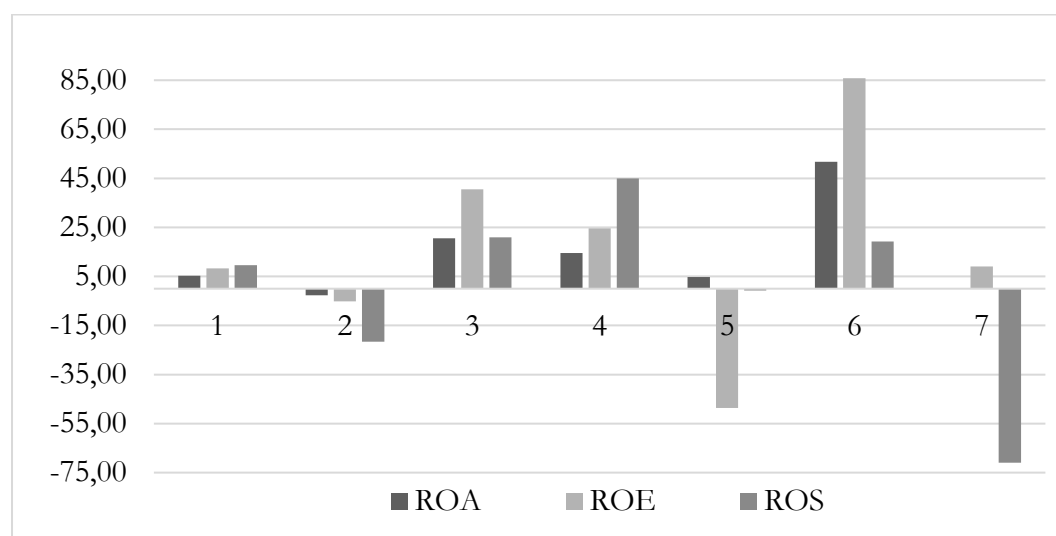


Figure 7: Average values of financial indicators (ROA, ROE, ROS) by cluster

Source: own editing, based on own calculations.

If we look at the intervals of the average values of the indicators based on the three-level grouping, the ROA indicator shows that good performers are above 14%, medium performers 5.25% and poor performers below 5%. For ROE, we are talking about values above 24%, 8.32% and below 9%. For ROS, the high performers' average is above 19%, the medium performers' is 9.63% and the low performers' is negative. Regarding the values of the profitability indicators (based on Herciu et al., 2011), a threefold grouping may be appropriate since for ROA the value is 5% in order to be at least in the medium group and well above 5% in the good group, and for ROE the value is above 15% also considering the same group, see Figure 7.

However, the first four clusters are the most important in the analysis as they account for 96.65% of the total number of companies, see Figure 8.

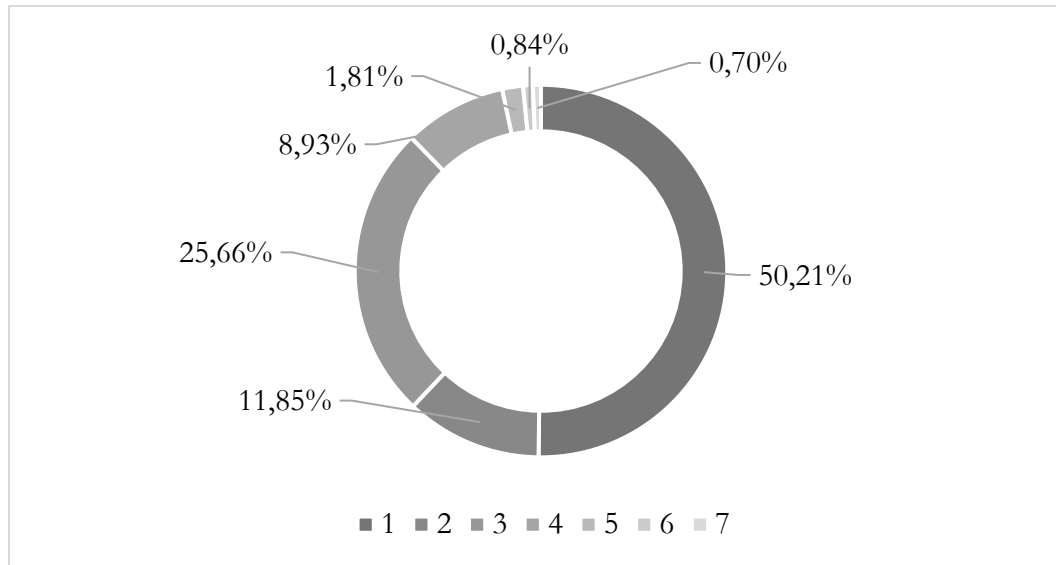


Figure 8 :Number of companies in clusters (%)

Source: own editing, based on own calculations.

In order to reveal differences between companies and clusters, additional indicators were included in the analysis, highlighting the dimensions of wealth, financial and profitability, see Table 4. Their combined values are shown in Table 5. For better visualisation, the indicators are colour-coded in relation to each other. The dark green colour indicates the most favourable cluster value within the indicator relative to the other values, while the dark red colour indicates the least favourable. The classification of the indicator values on the colour scale already allows the conclusion to be drawn that the threefold clustering just discussed exists not only for the profitability situation but also for the other values examined.

I have not used the ratio of fixed assets to current liabilities as there is no consensus on what is a more ideal value.

Table 4: Selected indicators

Assets and funding sources
Composition of asset (%): $\text{Fixed assets share} = \text{Fixed assets} / \text{Total assets} * 100$ Composition of financing sources (%): $\text{Equity proportion} = \text{Equity} / \text{Equity and liabilities} * 100$ $\text{Indebtedness ratio} = \text{Debt} / \text{Sources} * 100$ $\text{Proportion of short-term liabilities} = \text{Short-term liabilities} / \text{Total liabilities} * 100$
Financial situation
Liquidity: $\text{Current ratio} = \text{Current assets} / \text{Short term liabilities};$ $\text{Quick ratio} = (\text{Current assets} - \text{Inventories}) / \text{Short term liabilities}$

Profitability situation

Profitability ratios(%):

Personnel expenses/Net sales*100

Operating profit / Net sales*100

Return on sales: ROS = Profit after tax/Net sales*100

Return on equity: ROE = Profit after tax/Equity*100

Return on assets: ROA = Return on Assets= Profit after tax/Total Assets*100

Accounts receivable turnover rate = Net credit sales/Accounts receivable

*Source: Based on Fenyves et al., 2020: 3459***Table 5: Average value of indicators by cluster**

Number of clusters	1	2	3	4	5	6	7	Total.
Number of companies	360	85	184	64	13	6	5	717
Proportion of companies in clusters	50,21%	11,85%	25,66%	8,93%	1,81%	0,84%	0,70%	100%
Ratios	Five-year average of ratios values (2018-2022)							Average
ROA (%)	5,25	-2,72	20,59	14,49	4,74	51,77	0,01	9,41
ROE (%)	8,32	-5,19	40,55	24,65	-48,60	85,88	9,05	16,07
ROS (%)	9,63	-21,60	20,93	44,91	-0,70	19,31	-70,98	11,31
Fixed assets share (%)	70,85	75,93	55,27	64,27	60,84	40,77	63,00	66,38
Equity proportion (%)	59,70	48,30	56,58	63,81	13,38	62,58	21,11	56,83
Indebtedness ratio (%)	36,27	45,91	38,54	31,85	78,58	34,53	77,62	38,64
Proportion of short-term liabilities (%)	63,31	63,92	69,13	63,42	50,36	79,29	63,77	64,79
Current ratio	3,58	5,58	4,21	10,64	2,51	3,56	5,31	4,60
Quick ratio	3,16	4,99	3,79	9,47	2,24	3,20	5,15	4,10
Personnel expenses / Net sales (%)	27,61	40,38	20,91	22,62	36,81	25,61	45,44	27,23
Operating profit/ Net sales (%)	11,51	-18,12	21,93	43,59	3,87	19,08	-47,59	13,05
Accounts receivable turnover rate (x)	68,35	26,35	92,44	18,27	24,97	30,46	8,18	63,56

Source: own editing

I examined whether, in addition to the profitability indicators that define the clusters, the clusters differ significantly according to the other indicators. The Kruskal-Wallis statistical test indicates that the clusters differ significantly from each of the indicators included. Only for the share of current liabilities no significant difference is observed, since $p > 0.05$, see Table 6.

Table 6: Kruskal-Wallis test of clusters based on profitability indicators

Indicators	Kruskal-Wallis test	df	p
Fixed assets share (%)	89,86	6	**
Equity proportion (%)	24,73	6	**
Indebtedness ratio (%)	17,11	6	*
Proportion of short-term liabilities rate (%)	6,99	6	0,32
Current ratio	22,16	6	**
Quick ratio	27,44	6	**
Personnel expenses / Net sales (%)	129,10	6	**
Operating profit/ Net sales (%)	187,03	6	**
Accounts receivable turnover rate (x)	14,00	6	*
Test statistic is significant at the **0.01 *0.05 level			

Source: own editing, based on own calculations.

In order to explore the reasons behind the differences in the indicators between the clusters, I had to examine the accounting background information, see Table 7. I conclude that the worst performing companies in clusters 2 and 7 have significantly higher total assets and fixed assets. Therefore, it is not surprising that a similar conclusion can be drawn for the depreciation and amortisation ratio with a minimum value of 11%. The value of their long-term liabilities is also numerically much higher, including cluster 5, which analyses the ratio of interest paid to net sales. In addition to this, clusters 2 and 5, which are the same poor performers in terms of average number of employees, and cluster 1, which is a medium performer, have a high average value of between 37 and 50. In addition to this, a further difference is that the high performing clusters 3, 4 and 6 have cash/total assets ratios above 13%.

Table 7: Average values of accounting data by cluster

Clusters	1	2	3	4	5	6	7	Kruskal-Wallis test	df	p
Number of companies	360	85	184	64	13	6	5			
Total assets	3 897 882,46	7 000 648,18	1 670 033,21	3 707 547,71	3 459 899,31	376 252,43	5 677 448,72	41,95	6	**
Fixed assets	2 799 602,45	6 079 158,71	1 025 088,89	1 827 167,17	2 512 581,59	173 510,71	4 504 067,58	57,41	6	**
Tangible assets	2 791 496,55	6 074 983,68	1 021 990,19	1 809 060,06	2 497 870,75	173 402,75	4 498 775,96	57,29	6	**
Current assets	619 956,71	691 812,51	465 928,58	944 083,53	619 285,98	186 283,61	1 154 507,66	10,76	6	0,10
Short-term liabilities	533 700,26	742 412,62	335 193,84	799 966,83	470 728,23	81 528,93	1 911 007,55	11,97	6	0,06
Long-term liabilities	612 150,35	2 237 342,10	379 971,16	803 507,37	1 591 421,49	50 194,55	1 521 214,70	7,06	6	0,32
Equity	2 474 387,04	3 560 333,01	817 474,79	2 089 893,41	345 286,26	232 943,07	2 072 931,16	40,17	6	**
Net turnover	1 554 608,35	1 880 178,29	1 413 081,17	1 018 742,03	1 293 069,07	1 036 246,35	869 257,27	12,07	6	0,06
After-tax profit	184 168,60	- 55 044,75	288 553,66	452 067,71	23 430,10	212 069,15	- 211 805,50	233,51	6	**
Operating profit	218 459,00	59 991,88	310 657,21	481 422,38	100 155,06	208 560,40	- 61 979,00	181,17	6	**
Number of employees	37,32	49,55	31,09	20,06	41,31	36,17	21,40	12,51	6	0,05
Test statistic is significant at the **0.01 level										

Source: own editing, based on own calculations

Conclusions

In order to explore more depth the business performance of tourism companies in Romania, the application of cluster analysis methodology was deemed appropriate. Based on the average values of the indicators for the period 2018-2022, the following performance ranking can be established among the clusters: clusters 6, 3, 4, 1, 5, 7 and 2. These can be grouped into three major clusters, relatively high, medium and low performers. Clusters 3, 4, and 6 have outstanding performance values, accounting for 35.43% of the companies. Cluster 1 has medium values, comprising 50.21% of the companies. Clusters 2, 5, and 7 belong to the low-performance group, with negative values for profitability indicators, representing 14.36% of the companies studied. The pronounced differences between the three groups can be found in the other indicators studied. In summary, 85.64% of the companies studied performed at least satisfactorily.

Companies with smaller average assets (clusters 3, 4, 6), and higher equity ratios are better managed than larger companies (clusters 2, 7). They are more likely to raise only short-term debt. They operate with fewer employees and the resulting expense ratio, with lower depreciation and interest costs. These companies have proved to be better at crisis management.

In order to increase the efficiency of asset management (improving ROA), in the coming period, businesses should work on developing marketing strategies to increase the number of overnight stays, increase the share of foreign tourists and improve capacity utilisation. In the process, seasonal discounts, a dynamic pricing system and a strategic plan to improve the guest experience could be solutions. For relatively underperforming clusters, upgrading outdated assets is also an important step. Clusters with low equity proportion (improving ROE) should consider attracting investors, reducing the risk of over-indebtedness. In addition, the introduction of sustainability measures, service development, integration of best practices from abroad, continuous market trend analysis and adaptation, and the implementation of continuous monitoring activities could be key elements.

In summary, for high performing clusters, the primary focus should be on growth, for medium performers on efficiency and for relatively low performers on creating a liquid and solvent operation.

A future research direction is to analyse the financial performance of clusters before and after COVID, to examine the structural changes in clusters and the effects of the crisis. Examining whether structural changes occurred for clusters in terms of periods, or whether the crisis did or did not change the pre-existing structural set-up. Has there been a catching-up process to pre-COVID financial performance levels, or what were the factors that influenced this? In the case of a crisis-induced downturn, can we observe a more moderate downturn and a faster recovery of the better-performing clusters? Or, to compare the results and examine the differences and similarities in the financial performance of clusters of tourism companies in the CEEC, to draw lessons and recommendations for the future. In addition, the inclusion of regional differences in the research could also be mentioned as a future research direction. The methodology used also offers the possibility of further comparisons over time, between destinations and between economic sectors.

A limitation of the study is that it focuses on the larger players within the sector; however, these represent a significant proportion of the market's turnover, providing a realistic insight into the state of the sector.

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Author

Annamária Lőrincz

0000-0003-4855-6529

PhD Student, Assistant lecturer

Doctoral School of Management and Business

University of Debrecen

Sapientia Hungarian University of Transylvania

Faculty of Economics, Socio-Human Sciences and Engineering

lorinczannamaria@uni.sapientia.ro

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