COMPARATIVE STUDY OF FINANCIAL PROFITABILITY OF ROMANIAN TOURISM COMPANIES

Maria Daniela BONDOC[1], Mihaela Iuliana DUMITRU[2]

[1] Faculty of Economics and Law, University of Pitești, Romania, daniela.bondoc@upit.ro
[2] Faculty of Economics and Law, University of Pitești, Romania, mihaela.dumitru@upit.ro

Abstract: *The objective of our paper is to examine the performance of companies in the Romanian tourism sector based on profitability indicators and to highlight the possible correlations between them. Financial performance was studied based on the average values of Return on Assets (ROA), Return on Equity (ROE) and Return on Sales (ROS) calculated over a 10-year period. Our analysis is focused on tourism companies listed on the Bucharest Stock Exchange, which obtained net profits throughout the period. The database was built on the annual financial reports for the period 2008-2017, available on the Bucharest Stock Exchange website and on the website of the Ministry of Public Finance.*

Keywords*:* Profitability ratios, Tourism, Financial performance, Quantitative methods, Pearson correlation.

JEL Classification Codes: G30, L25

1. INTRODUCTION

Profitability is an economic category of expressing business financial performance. Achieving profitability is, in fact, reaching the first level of performance of a business.

Very often, in the specialized literature, the notion of performance overlaps with that of profitability. This concept is defined as being the ability of an enterprise to obtain profit using production factors and capital, regardless of their origin. Profitability is the most effective form of expressing the efficiency of the economic and financial activity of an entity, and is measured by two categories of indicators: profit, reflecting the absolute value of profitability, and profitability rates that express the extent to which capital or the use of resources brings profit to the enterprise (Robu, 2005, page 236).

According to World Travel & Tourism Council (https://www.wttc.org), tourism is an important economic activity in most countries around the world. In addition to its direct economic impact, the sector has significant indirect and induced impacts. The direct contribution of Travel & Tourism to Romanian GDP in 2017 was 12.2 billion lei (1.4% of GDP). This is forecast to rise by 4.6% in 2018 (to 12.7 billion lei). This primarily reflects the economic activity generated by industries such as hotels, travel agents, airlines and other passenger transportation services (excluding commuter services). But it also includes, for example, the activities of the restaurant and leisure industries directly supported by tourists.

The equilibration of the tourism balance can be done by acting in two ways: convincing Romanians to spend their holidays in the country and rediscover Romania and promoting our country on the external markets by all means (Bedrule – Grigoruță, 2006, p.188). We believe that a recent national measure in this respect is that of granting holiday vouchers for employees in the

Romanian budget sector in 2018, the effects of which will be visible at the end of the year in the performances of the tourist entities that accept this form of payment for services.

The choice of performance measures is one of the key challenges facing hospitality organizations (Wöber, 2002, p. 31). Published studies on business performance have revealed that both financial and non-financial indicators can be used to measure it.

There are many financial indicators used by companies to measure performance. For this research, we have chosen to study three of the rates of return: Return on Assets (ROA), Return on Equity (ROE) and Return on Sales (ROS). Their analysis was based on the financial statements of three entities listed on the Bucharest Stock Exchange, which we consider representative for the tourism sector.

2. LITERATURE REVIEW

According to Glăvan et al. (2011, p. 11), "the tourism and travel industry is one of the most dynamic sectors in the world, while being, at the same time, an important generator of jobs."

Generally, managers tend to rely on classical financial indicators when making strategic decisions, among them being the level of profitability (Dușescu at al., 2014, p. 839). These indicators are based mainly on profit maximization – the primary goal of any business (Horváthová et al., 2015, p. 361)

The analysis based on rates also comprises the analysis of profitability ratios which measure the economic effectiveness. According to Rutkowska-Ziarko (2015, p. 153), "the assessment of the profitability of a company is made on the basis of financial profitability ratios".

According to a study carried out in the tourism sector (Duţescu et al., 2014, p.839), managers tend to rely on classical financial indicators when making strategic decisions (73.8% focus on profitability).

The profitability of the Romanian companies in the tourism sector was also analysed by Droj (2015), whose study wascarried out for 10 companies listed on the Bucharest Stock Exchange during 2010-2013, taking into account the profitability ratios, but following only their evolution, not the correlations between the variables.

According to Lasher (2015, p. 95,), "profitability ratios give us relative measures of the firm's money-making success".

Return on Equity can be considered one of the measures to evaluate companies or firms performances and it should not be kept isolated (Kumar Swain, Kumar, 2017, p. 97). From the point of view of stock exchange investors, the high value of the ROE ratio improves the attractiveness of a stock exchange company by such aspects as expectations of a large dividend (Rutkowska-Ziarko, 2015, p. 154).

Return on Sales is net income as a percentage of sales and it measures the control of the income statement. Return on Assets provides information about how effectively a company's assets are being managed (Rutkowska-Ziarko, 2015, p. 154).

3. DATABASE AND METHODOLOGY

In order to carry out our scientific approach, we used:

a) Research methods: the collection of information, processing this information, interpretation of research data

b) Techniques: analysis of the references, analysis of the available information, correlation between data

c) Procedures: studying the available materials, building databases necessary for the processing and interpretation of the results of research, synthesizing the data in tables, using on-line search engines

d) Investigation tools: data organization systems, databases, online resources and publications necessary for the research.

The database was built on the information provided by the financial statements for the last 10 years (2008-2017) for three hotels and restaurants listed on the Bucharest Stock Exchange:

1. Turism, Hoteluri, Restaurante Marea Neagră S.A.
2. Compania Hotelieră Intercontinental România S.A.
3. Turism Felix S.A.

The data was processed using the RSQ and CORREL functions from the MS Excel spreadsheet utility.

4. RESULTS AND DISCUSSION

For each of the three companies, we have determined the correlations between Return on Assets (ROA), Return on Equity (ROE), Return on Sales (ROS) and Turnover, Equity, Net Income, Total Assets and we represented the dispersion diagram for each correlation graphically. They are presented in table 1/figure 1 (for Turism, Hoteluri, Restaurante Marea Neagră S.A.), table 2/figure 2 (for Compania Hotelieră Intercontinental România S.A. București) and table 3/figure 3 (for Turism Felix S.A.)

Table 1. The calculation of the correlations for Turism, Hoteluri, Restaurante Marea Neagră S.A.

R=correl (X,Y)		Turnover	Equity	Net Income	Total Assets
ROA	R	**0.671226973**	0.288567056	**0.960626117**	0.239269235
	R^2	0.450545649	0.083270946	0.922802536	0.057249767
ROE	R	**0.670132054**	0.25643864	**0.947208853**	0.209181549
	R^2	0.44907697	0.065760776	0.897204612	0.04375692
ROS	R	0.5465746	0.529362006	**0.97879742**	0.484415818
	R^2	0.298743794	0.280224134	0.958044389	0.234658685

In the case of the company ***Turism, Hoteluri, Restaurante Marea Neagră S.A.*** we can notice only direct, positive relations. We take into account a representative sample of 0.025 for the significance threshold.

For this significance threshold of 0.025, for a one-tailed relationship, according to the table of critical values for the Pearson correlation coefficient, the critical coefficient value for a significance level p = 0.025% is 0.632.

For the correlation between ROA and Turnover, we notice that R=0.671226973 is higher than the critical value 0.632, and therefore we will exclude the null hypothesis, as there is a positive correlation between the two indicators. A stronger correlation can be seen between ROA and the Net income (R=0.960626117).

The correlation between ROE and the Turnover highlights a Pearson coefficient of 0.670132054, while when we take into account the Net income, the correlation is stronger (R=0.947208853) in this case too. ROS is in a strong direct correlation with the Net income only (R=0.97879742). The determination coefficient (R^2) highlights, as expected, that the Net income determines the highest variation of the three rates of return analysed. The correlations are very strong between Net income and profitability ratios.

The dispersion diagram– the dot cloud chart (XY Scatter) is represented, for each correlation, in Figure 1.

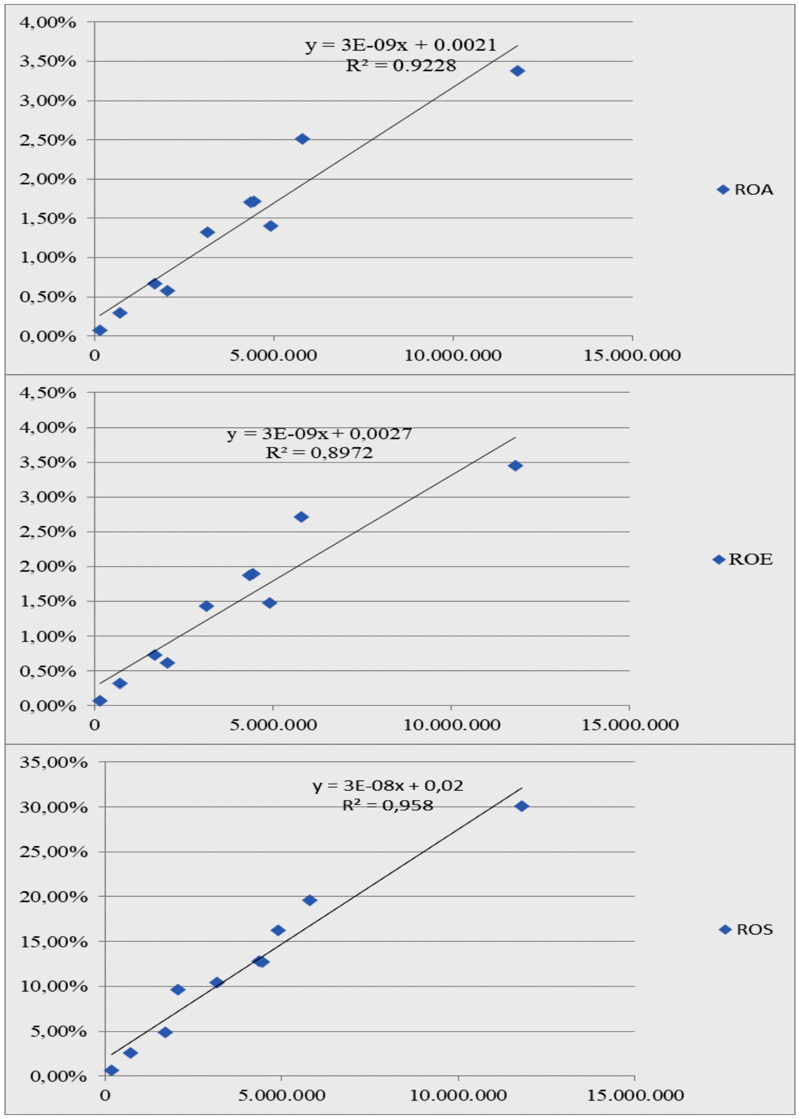

Figure 1. Correlation between Net income and profitability ratios

We will present below the situation of the same correlations for Compania Hotelieră Intercontinental România S.A. București (Table 2).

In the case of Compania Hotelieră Intercontinental România S.A. București we can notice both direct, positive, as well as negative relations. We have taken into account a representative sample for the same significant threshold of 0.025, so the critical coefficient value is 0.632. For the correlation between ROA and Turnover, we can see that R=0.830091494 is higher than the critical value 0.632, and therefore we will exclude the null hypothesis in this case as well, because there is a positive correlation between the two indicators. A stronger correlation can be seen between ROA and the Net income (R=0.960626117). On the other hand, the correlation between ROE and the Turnover highlights a Pearson coefficient of 0.829930326, while, when we take the Net income into account, the correlation is stronger (R=0.958349309).

In the case of ROS we can notice a string direct correlation the Net income only (R=0.991868335).

Table 2. The calculation of the correlations for Compania Hotelieră Intercontinental România S.A. București

R=correl (X,Y)		Turnover	Equity	Net Income	Total Assets
ROA	R	**0.830091494**	-0,699518176	**0,971937928**	-0,760450304
	R^2	0,689051888	0,489325678	0,944663336	0,578284664
ROE	R	**0,829930326**	-0,681029473	**0,958349309**	-0,745444841
	R^2	0,688784346	0,463801142	0,918433398	0,555688011
ROS	R	0,721950946	-0,724969326	**0,991868335**	-0,754016471
	R^2	0,521213168	0,525580524	0,983802794	0,568540839

Again, the determination coefficient (R^2) highlights that the Net income determines he highest variation of the three rates of return analysed (the correlations are very strong between the Net income and the profitability ratios, reaching the level of 0.983802794 in the case of ROS).

The dispersion diagram– the dot cloud chart (XY Scatter) is represented, for each correlation, in Figure 2.

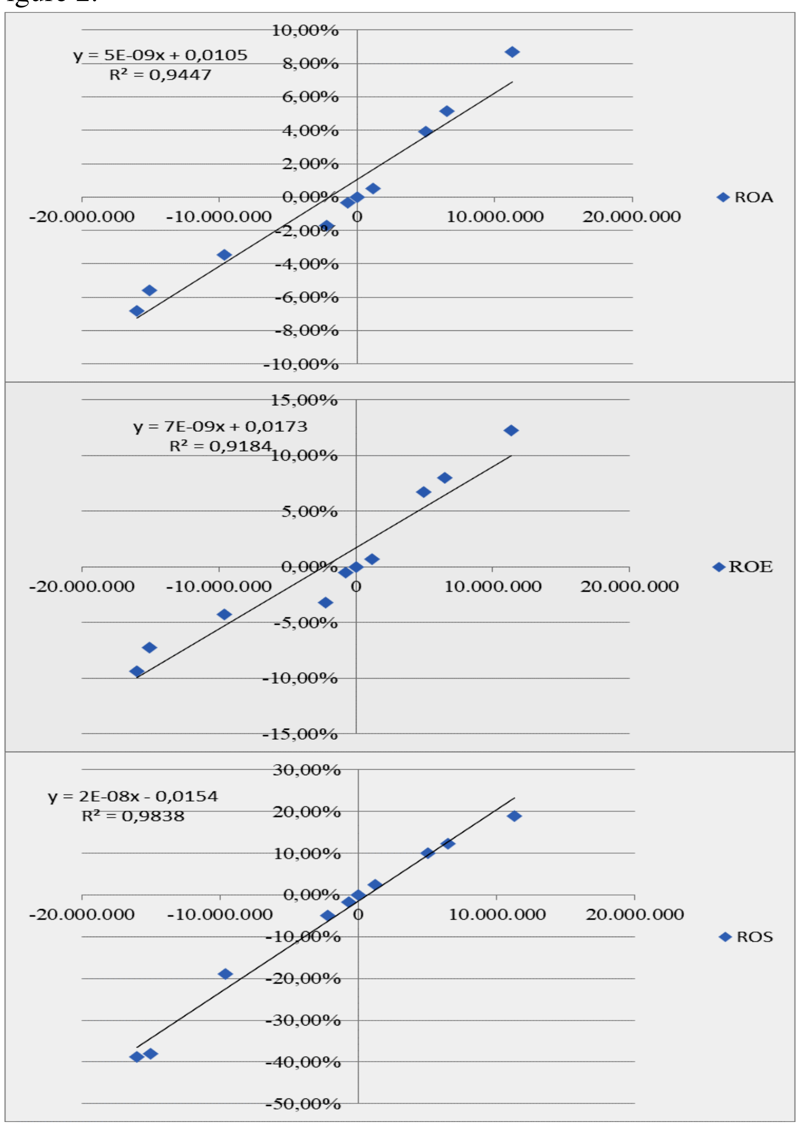

Figure 2 - Correlation between Net income and profitability ratios

Table 3. The calculation of the correlations for Turism Felix S.A.

R=correl (X,Y)		Turnover	Equity	Net Income	Total Assets
ROA	R	0,136697637	-0,549958817	**0,993322999**	-0,087610642
	R^2	0,018686244	0,302454701	0,986690581	0,007675625
ROE	R	0,089946758	-0,562857768	**0,995699859**	-0,052294229
	R^2	0,008090419	0,316808868	0,991418209	0,002734686
ROS	R	-0,07209922	-0,593649174	**0,974330123**	0,005202855
	R^2	0,005198297	0,352419341	0,949319189	0,000027070

The dispersion diagram– the dot cloud chart (XY Scatter) is represented, for each correlation, in Figure 3.

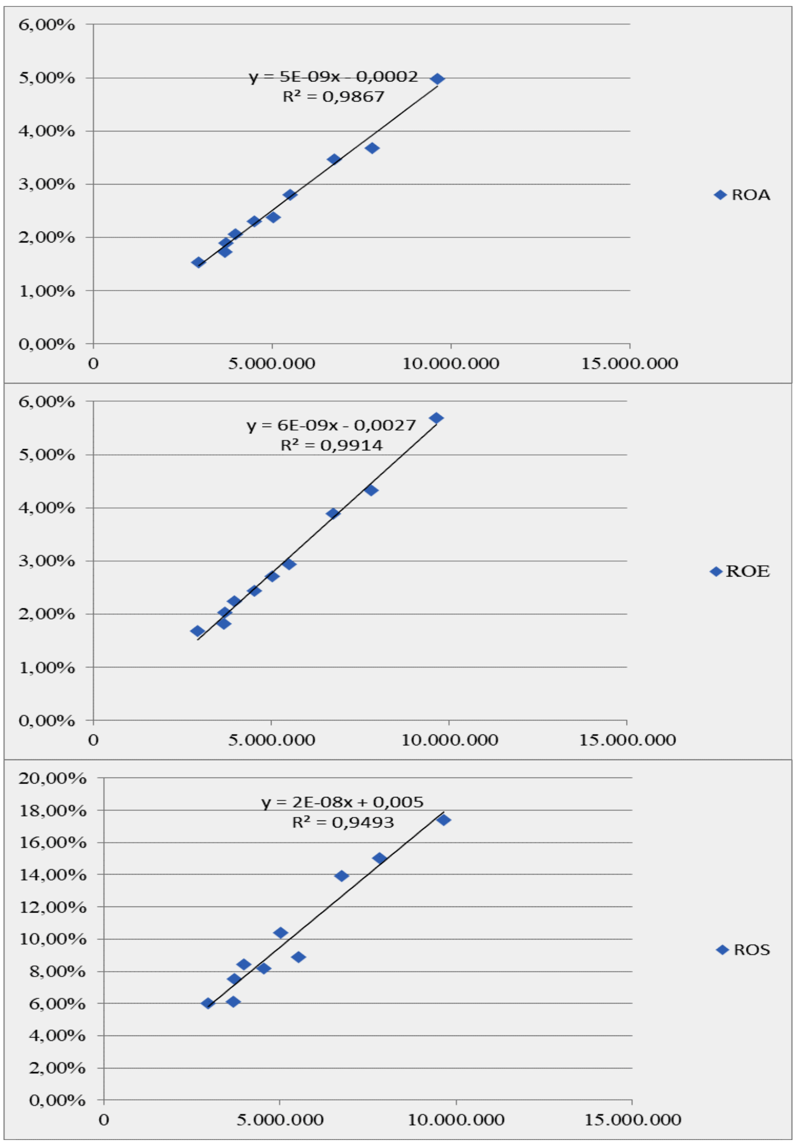

Figure 3 - Correlation between Net income and profitability ratios

In the last analysed case, i.e. Turism Felix S.A., we can notice the same categories of relations: direct, positive, as well as negative. Again, we will take into account the representative sample for the significance threshold of 0.025, so again, the critical coefficient value is 0.632.

The first correlation analysed, the one between the ROA and the Net income, proves that R=0.993322999 is higher than the critical value 0.632, and therefore we will again exclude the null hypothesis in this case, because there is a positive correlation between the two indicators (the level being, in fact, very close to 1 as well).

Secondly, the correlation between the ROE and the same Net Income highlights a coefficient of 0.995699859, and therefore the correlation is strong. In the case of the ROS, the same strong direct correlation with the Net income only is maintained (R=0.974330123).

The determination coefficient (R^2) highlights in this case as well the fact that the Net income determines the highest variation of the three rates of return analysed (we reach the level of 0.991418209 in the case of the ROE).

5. CONCLUSIONS

This research focused on the financial performance of certain companies operating in the tourism sector in Romania between 2008 and 2017. Our analysis comprised the correlations between three rates of return (Return on Assets, Return on Equity, Return on Sales) and the independent variables Turnover, Equity, Net Income, Total Assets.

For a significant threshold of 0.025, the critical coefficient value is 0.632.

In the case of the company Turism, Hoteluri, Restaurante Marea Neagră S.A. we identified only direct, positive relations, and the correlations are stronger between the Net Income and the profitability ratios. In the case of Compania Hotelieră Intercontinental România S.A. București we identified both direct, positive relations, as well as negative ones. He strongest positive connection is in the case of the Return on Sales. The Net Income determines the highest variation of the three rates of return analysed (the stronger connection in the case of the Return on Equity) and following the analysis of the correlations for Turism Felix S.A.

Our analysis carried out based on the financial statements of the three companies listed on the Bucharest Stock Exchange showed that the profitability ratios in the case of companies in the tourism sector were strongly influenced by the Net Income and the Turnover. As a potential future research direction, we aim at expanding this performance analysis to the first 10 companies in the tourism sector in Romania.

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