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MÁSTER EN GESTIÓN DE EMPRESAS, PRODUCTOS Y SERVICIOS

FINANCIAL PERFORMANCE OF SPANISH HOTELS DURING THE CRISIS

TRABAJO FINAL DE MÁSTER

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Index

Table Index

Figure Index

Financial performance of Spanish hotels during the crisis.[1]

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Abstract

Purpose – This paper studies the relationship between category, size and chain affiliation of hotels and their financial performance.

Design/Methodology/Approach – This investigation used ANOVA analysis of financial data collected from the SABI database. The target population was Spanish hotels, and the sample used for the study was the hotels of the Alicante region.

Findings – In times of the crisis, financial figures of hotel companies are generally very low, with the negative average profits in most cases. Category, size and chain affiliation do not completely explain the differences between hotels' financial performance. Only revenue has a significant relationship with all of these three variables. Among other financial indicators, also revenue per room is influenced by category, while gross profits per room and net profits per room are influenced both by category and chain affiliation.

Research limitations/implications – The study was carried out on the sample of hotels of only one region of Spain, Alicante, and not all the Spanish hotels. Furthermore, it is based on the data obtained from secondary sources of information.

Originality/value – Though there are studies that have already analysed the influence of category, size and chain affiliation on the financial performance of Spanish hotels, 1- and 2-star hotels were excluded from them. Furthermore, this paper also includes the effect of the global financial crisis on the Spanish hotel industry.

Key words Spanish hotels, hotel performance, category, size, chain affiliation, financial crisis

Paper type Research paper

[1] *This paper follows the format established by the International Journal of Contemporary Hospitality Management (Emerald).*

Introduction

Tourism and hotel industry in Spain

Tourism is one of the most important world economic industries. It accounts for nearly 5 percent of the world Gross Domestic Product and between 6 and 7 per cent of the employment.

Regarding the tourism in the EU, it is one of the main sources of the income of most of EU-27 countries. Tourism accounts for more than 5 per cent of the EU Gross Domestic Product and total employment within the whole of the EU tourism industry is estimated to be between 12 million and 14 million people, while the tourist accommodation sector employs 2.3 million people (Eurostat, 2012).

As for Spain, the tourism and the hotel industry play an especially important role in the economy of the country. The tourism industry accounts for almost 11 per cent of the total Spanish Gross Domestic Product and 12 per cent of the employment (INE, 2011).

Spain is the second largest destination worldwide (behind USA) and the first in Europe for the tourism receipts, while it ranks fourth for the international tourist arrivals (WTO, 2012).

Over the last decades, globalization and the world economic growth contributed to the enlargement of the tourism activity, as each time more and more people have the possibility to go abroad. On the other hand, the new tourist trends towards the alternative tourism (sports, health and beauty, rural tourism) and the new emerging economy destinations decrease the importance of the EU destinations and the sun-and-beach tourism.

The global tourist industry has been continuously increasing and diversifying. According to estimates of the WTO (2012), between 1995 and 2011 the number of international tourist arrivals has almost doubled, increasing from 528 million to 983 million of tourists.

However, the growth of the tourism has not been uninterrupted. The global financial crisis of 2008 influenced also the tourist activity that suffered a decline of 4.2 per cent in the number of tourist arrivals in 2009 (WTO, 2010).

Spanish tourism was also affected by the current financial crisis with the fall of 8.8 percent in the tourist arrivals. This decline affected also other hospitality industries. In particular, hotel industry companies had a fall in their financial results in 2009 (SABI database). From 2010 on this decline has been slowly recovering, but still without reaching results obtained in 2008 (INE, 2010; INE 2012*b).*

So, the main objective of this paper is to determine if the current financial crisis is affecting all the different types of hotels in the same way, concerning their financial results.

Thereby, we will examine if there is a relationship between category, size and chain affiliation of the Spanish hotels and their financial performance in the times of crisis, carrying out the analysis for the year 2010.

Hotels of the region of Alicante

The region of Alicante is one of the most important touristic areas of Spain, which provides a wide touristic offer of accommodation, restaurants and other hospitality services. Within the Valencian Autonomous Community, it is the region with the largest hospitality offer that provides accommodation to almost the half of the total number of tourists of the Valencian Community (See figure 1). In 2010 Alicante received 3,266,359 travellers that in overall spent 14,188,489 nights in their hotels.

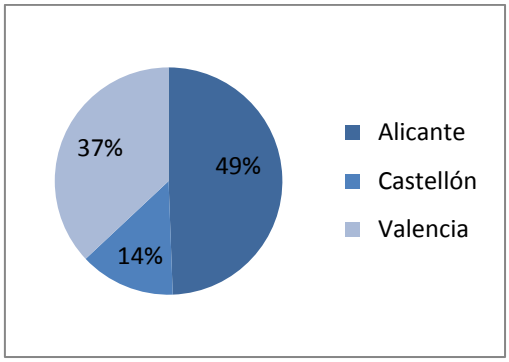

Figure 1. Tourist arrivals by regions of Valencian Community.

In average in 2010 Valencian Community hotel offer consisted of 629 hotels with 124,320 beds, what accounts for 8.2 percent of the total Spanish hotel companies and almost 9.2 percent of the hotel beds offer of Spain (INE, 2011).

Table I. Hotels by category and region 2010.

Region	Gold Stars					Total	%
	1	2	3	4	5		
Alicante	41	64	120	68	10	303	48.17%
Castellón	22	44	28	21	-	115	18.28%
Valencia	27	45	74	60	5	211	33.55%
Valencian Community	90	153	222	149	15	629	100.00%

Source: Compiled by authors based on the data provided by INE, www.ine.es

As reported in the table I, the accommodation offer of the region of Alicante consisted of 303 hotel companies in 2010, what represents almost the half of the total Valencian Community hotel offer (48 percent) and almost 4 percent of the Spanish offer. Most of them are 3-star hotels (almost 40 percent), 1-and 2-star hotel account for almost 35 percent of the total offer and hotels of higher category are less representative, 4-star hotels account for 22.4 percent and only 3.3 percent of them are 5-star hotels (See figure 2).

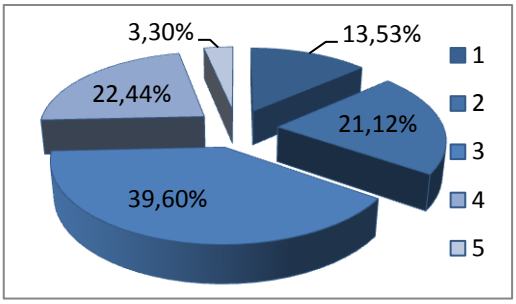

Figure 2. Hotels of Alicante by category.

In our study were included those hotel companies listed in the Official Guide of Spanish Hotels of the year 2010 (the last available edition), which financial accounts were available in the SABI (Sistema de Análisis de Balances Ibéricos, Iberian Balance Sheet Analysis) database.

Literature Review

Performance

Lusthaus *et al.* (2002) define the organizational performance in terms of "effectiveness (mission accomplishment), efficiency and permanent relevance (to what extent the organization adapts to changing environmental conditions)" (p.10).

According to its legal framework, the enterprise performs well if apart from the financial viability, it operates in the effective and efficient way and it is relevant for the directly interested parties. Therefore, for the evaluation of the performance it is not enough just to use the financial indicators, but also those of effectiveness, efficiency and relevancy have to be assessed. However, the financial performance is mainly measured with figures obtained from annual accounts, those that are common for all the companies and other specific indicators of the industry which the company belongs.

For the measurement of the financial performance of hotels, a wide range of different variables has been employed. The most used among them are: the total gross profit, the gross profit per room and day, and the room or bed occupancy rate (Claver *et al*., 2007*a*; *2007b;* Molina *et al*., 2009; Pereira *et al*., 2011*a*; Rodríguez and Caro, 2009; Claver *et al*., 2004; Min *et al*., 2009).

Other indicators that assess the financial performance of the hotel industry companies are the total revenues and the revenues per room (Chen, 2011; Chung and Kalnins, 2001), the ratio between the net operating income and the operating expenses (Chen and Lin, 2012), the ROA (Return on Assets) (Tavitiyaman *et al.*, 2012), the ROE (Return on Equity) and the stock return (Chen, 2011), the net profit (Tavitiyaman *et al.*, 2012) and the net profit margin (Jae and Jang, 2007).

On the other hand, for the measurement of the financial performance during the crisis, Martinez (2010) uses the following variables: the gross and the net operating profits, the total net profit, the ROI and the ROA.

In reference to the factors that explain differences in hotel performance, diverse have been studied.

Álvarez et al. (2001) have shown that the environmental management practices affect positively short-term financial performance of hotel companies. Tavitiyaman *et al.*, (2012) also suggested the human resources competitive strategies to influence directly hotel's behavioural performance, and the information technologies affect hotel's financial performance.

Furthermore, human resources and IT strategies are found to be related with the industry forces, being these strategies stronger in hotels with low customer bargaining power and threat of new entrants, and in contrast, hotels with advantage over its competitors are not competitive in innovation (Tavitiyaman *et al*., 2010).

Hotel's performance is affected by its level of innovation differentiating between four types of innovation: management, external communication, back off and service innovation (Orfila-Sintes and Mattsson, 2009).

Factors such as hotel's size, kind of accommodation, scope of services and use of knowledge and information technologies affect the level of innovation and, hence, the performance of the hotel.

On the other hand, the link between customer relationship management (CRM) and the hotel performance has also been studied providing a theoretical model to prove this relationship (Abdul and Basri, 2012)

Other researchers classify hotels in different performance groups according to factors such as category, age, size, localization, chain affiliation, type of management, etc.

Claver *et al.* (2007*a*) demonstrated the influence of the size, chain affiliation and category on performance of 3-5-star Spanish hotels, followed by the study that added the variable localization and company's internal factors to explain the competitiveness of Spanish hotels of these categories (Pereira *et al.*, 2011*a*). According to the results of these studies, hotels with higher category, larger size and those belonging to chains achieve higher performance, with the exception of the occupancy rate that is higher in the case of hotels of lower category. However, among all the factors, resources and capacities of the company are those that most explain its performance.

With the same variables, the level of differentiation and innovation in hotels has also been analysed. According to Becerra *et al.* (2012), higher category of hotel companies and chain affiliation mean higher performance, while Jae and Jang (2007) found that differentiation in hotel industry does not provide higher benefits for the companies.

As for the quality of the offered services, food and beverage have a major impact on the hotel revenues than room services (Chen and Chang, 2012).

Among all the different factors that have been suggested to explain the financial performance of hotels, the one that most differentiates between the companies of the sector is the category. On the other hand, the size and the chain affiliation are the variables that have been most employed to explain the hotels' performance. Furthermore, it is worth mentioning that these three variables are not independent, as hotel size can be explained by its category and the fact of belonging or not to a hotel chain.

Category

Though the category was not much employed to study hotel performance, it is the simplest and most obvious type of hotel classification and the easiest way of differentiation between hotel companies.

Researchers that explained hotel performance using this variable have shown that hotels of a higher category achieve greater financial performance due to the wider range of services offered, higher quality or more extensive implementation of environmental management (Claver *et al.*, 2007*a*; Becerra *et al.*, 2012; Álvarez *et al.*, 2001).

According to the Austrian researchers, hotels' category also influences their response behaviour to enquires, being lower rated hotels with the lowest response rate, the longest response time and the poorest information depth (Matzler *et al.*, 2005).

Furthermore, Becerra *et al.* (2012) directly employ the variable category to assess the hotel's quality.

The CEHAT, Spanish Confederation of Hotels and Tourist Accommodations (La Confederación Española de Hoteles y Alojamientos Turísticos, 2009) establishes the following minimum requirements for each hotel category (See table II).

Table II. Minimum requirements of hotels by category.

Category	Simple room	Double room	Bathroom	Additional services
1-star	7 m2	12 m2	bath or shower 3,5 m2	Central heating and lift
2-star	7 m2	14 m2	bath or shower 3,5 m2	Telephone in room, central heating, lift and safety deposit box service
3-star	8 m2	15 m2	bath and shower 4 m2	Telephone in room, central heating, lift, air conditioning of common areas, lift, bar and safety deposit box service
4-star	9 m2	16 m2	bath and shower 4,5 m2	Telephone in room, central heating, air conditioning in room, lift, bar and safety deposit box in room
5-star	10 m2	17 m2	bath and shower 5 m2	Telephone in room, central heating, air conditioning in room, lift, bar and safety deposit box in room

Source: Compiled by authors based on the data provided by CEHAT, www.cehat.com

Size

The variable size has been widely employed to classify companies of different industries including hotels.

Claver *et al.* (2007*a*) and Claver *et al.* (2007*b*) found out in their studies that hotels of larger size achieve higher levels of performance as the greater firm size generally means higher possibilities to incur in economies of scale or economies of scope.

In the hotel industry, the size has been demonstrated to explain factors such as the level of innovation (Orfila-Sintes and Mattson, 2009), the quality and the environmental management practices (Molina *et al.*, 2009; Álvarez *et al.*, 2001; Kirk, 1998), as well as the type of growth strategy implemented in the company (Claver *et al.*, 2006).

According to the results of these research papers, hotels of larger size achieve higher levels of innovation as well as quality and degree of implementation of environmental management practices. However, large hotels apply less risky growth strategies than the smaller ones.

The company's size is generally determined by the number of people employed. However, in the hotel industry size is mainly assessed with the number of beds or guest-rooms offered.

In this paper the hotels were classified in different size groups according to the number of guest-rooms:

- Small: less than 100 rooms
- Medium-sized: between 100 and 200 rooms
- Large: more than 200 rooms

This classification is an approximation to the one applied by Clavier *et al.* (2007a) in his study, but it is based on the number of rooms instead of the categorization by the number of beds.

Chain affiliation

Chain affiliation that differentiates between independent hotels (only one hotel) and those belonging to chains (2 or more hotels) is the most studied variable for the hotel performance analysis.

Being part of the hotel chain not only presents advantages, but also disadvantages (Villacorta, 2002*a*). The main differences between these two types of hotels is that hotels in chains share the single brand and in average have a larger size than the independent hotels, aspects that may influence both positively and negatively the hotel operations and its performance.

The unique brand image provides an easier communication with the client and lower costs of information search, but at the same time this can damage all the hotels that form part of the chain if the image is negative.

Larger size can also have positive and negative effects. On one hand, as a result of synergies, economies of scale and scope, it means a decrease in costs, higher bargaining power, more possibilities of funding and investment. On the other hand, a larger company size could be associated with lower quality as it is more difficult to run and control and normally it offers more standardized products and services at lower prices.

However, most studies that analysed this variable found that the advantages of being part of a chain are more important than its disadvantages.

According to Claver *et al.* (2007 *a; 2007b)* and Tavitiyaman *et al.* (2012), hotels in chains achieve higher levels of performance, both operational and financial.

Villacorta (2001) has shown that hotels belonging to chains have higher possibilities to survive and furthermore, as the chain size increases as a consequence of the increment in number of rooms or number of hotels, the possibilities to fail decrease (Villacorta, 2002*b*).

The same way as some studies assess the hotel quality with its category (Becerra *et al.*, 2012), there are also authors that suggest the relationship between chain affiliation and quality, stating that the mere fact of belonging to chain provides a hotel greater prestige and better reputation (Ingram and Baum, 1997; Holversen and Revaz, 2006).

Moreover, Gil and Meroño (2006) have shown that hotels in chain make greater use of the new technologies what improves their performance.

Chung and Kalnins (2001) also demonstrated the benefits of the hotels' chains over the independent hotels in the creation of positive externalities.

According to all these studies, hotels belonging to chains achieve a higher performance, both financial and operational, and have better survival. Therefore, it would be interesting to determine if this also happens in times of crisis. Do the hotels in chain also face lower losses than the independent ones during the crisis?

Methodology

Population and sample

Our study is mainly based on data derived from secondary sources of information that, despite the disadvantages of its possible inaccuracy, also present advantages mostly because of its major objectiveness. General information about the industry was collected using the reports and studies carried out by the INE (Instiuto Nacional de Estadística, National Institute of Statistics), the WTO (World Tourism Organization), the IET (Instituto de Estudios Turísticos, Institute of Tourism Studies), ExcelTur, CEHAT (Confederación Española de Hoteles y Alojamientos Turísticos, Spanish Confederation of Hotels and Tourist Accommodations), as well as news published on the web page of a digital newspaper specialized in tourism – HostelTur. On the other hand, in order to obtain the basic information about the hotels and to classify them, data from the Official Hotels' Guide (La Guía Oficial de Hotels) published annually by Turespaña has been contrasted and completed with the information provided on the web pages of hotel enterprises. Furthermore, to carry out the analysis, financial data for the year 2010 was compiled from the SABI database (Sistema de Análisis de Balances Ibéricos, Iberian Balance Sheet Analysis Database).

The targeted population is all the Spanish hotels excluding the National Paradors (Paradores Nacionales), because they present specific features as a consequence of being state-run, with the total number of 7.492 hotels in 2010.

Our sample consists of all the hotels of the region of Alicante listed in the Official Guide of Hotels of 2010, which annual accounts are available in the SABI Database.

According to the Official Hotels' Guide, in 2010 the total offer of hotels in the region of Alicante consisted of 303 establishments, most of which were three-star hotels (See table III).

Table III. Hotels of Alicante by category.

Category	Nº hotels	Percentage
1-star	41	13.53%
2-star	64	21.12%
3-star	120	39.60%
4-star	68	22.44%
5-star	10	3.30%
Total	303	100.00%

Source: Compiled by authors based on the data provided by the Official Hotels' Guide 2010, Turespaña

After analysing all the data available, from the total of 303 hotels, the SABI Database provides complete financial reports for 132 of them, hotels which constitute our final sample.

Variables and Measures

Our dependent variable is the hotels' financial performance, which was measured using both, the industry financial performance indicators and the variables which assess the company's performance during the crisis.

Therefore, this study used all the following variables for the assessment of the financial performance:

- Revenue – total income obtained by the company from the sales of products or services' provision.
- Net operating profit (EBIT) – profit without taking into account interests and income taxes.
- Gross and net profit – profit before taxes and the final company's income or loss.
- Revenue per room, gross and net profit per room – ratios that eliminate the effect of the size.
- Return on investment and return on equity - ratios that measure the company's profitability on the investment of assets or shareholders' equity.

These variables were analysed taking into account three different factors: the category, size and chain affiliation that constitute the independent variables of our empirical study.

We include hotels of all the different categories obtaining a sample with the following composition (table IV):

Table IV. Hotels of the sample classified by category.

Category	Nº hotels	Percentage
1-star	8	6.06%
2-star	30	22.73%
3-star	54	40.91%
4-star	34	25.76%
5-star	6	4.55%
Total	132	100.00%

Source: Compiled by authors

As we can observe, most of the hotels of the sample are of the category 3-star, followed by 4- and 2-star hotels, while there are very few 1- and 5-star hotels. The composition of the sample is similar to that of the region of the study (table II), with the exception of 1-star hand 5-star hotels, as the first ones account for less proportion and the second ones, on the contrary, have a greater presence in our sample.

The variable size distinguishes between small, medium-sized and large hotel enterprises by the overall number of guest-rooms offered by the hotel. As the accommodation industry of the region is predominated by the small hotel enterprises, the proportion of larger size hotels in our sample is also quite low. So, the study is carried out on 79 small, 28 medium-sized and 25 large hotels.

And finally, our third independent variable, chain affiliation, separates the hotel companies in 2 groups: independent hotels (97) and hotels belonging to chains (35).

Data Analysis

The data obtained from the SABI Database were tested conducting the ANOVA analysis (Miguel *et al.*, 1996). In overall, three different analyses were carried out to study separately the influence of each variable: category, size and chain affiliation.

The ANOVA analysis was conducted applying the SPSS statistic software, where our independent variables were defined as followed:

- *Category*: a nominal variable that takes values between 1 and 5 according to the category.
- *Size*: a nominal variable with values between 1 and 3, corresponding 1 to small hotels, 2 - medium-sized and 3-large hotels.
- *Chain Affiliation*: a nominal variable which refers to independent hotels when takes value 0 and hotels in chain with the value 1.

On one hand, a descriptive analysis was performed calculating the mean, the standard deviation and the standard error of the variables that measure the hotel performance in our study: the total revenue, the revenue per room, the net operating profit, the total gross and net profit, and the gross and net profit per room, the net profit margin, the economic and financial profitability.

On the other hand, the analysis of variances was conducted to test the equality of means of the financial variables according to each independent variable.

Results

Category

Tables V and VI show the descriptive statistics of the variables for hotels classified by category, the table V presents the total revenue and the total profits, while the table VI shows figures per room and profitability ratios.

As we can observe, the highest level of revenue is achieved by 4-star hotels, followed by 5-star and 3-star hotels, while the average revenue of hotels of the categories 1- and 2-star is the lowest. In contrast, when analysing the same variable eliminating the effect of the size, the 1-star hotels obtain better results than the 2- and the 3-star hotels. Moreover, the one-star hotels are the only ones with the positive net profit, the rest of them in average obtain negative profits that decrease as the category increases.

As for the operating and gross profits, these are the highest in 4-star hotels, followed by 1-star hotels and negative in 2- and 5-star hotels. It is worth to highlight the losses faced by 5-star hotels that are estimated to be extremely high.

Table V. Descriptive statistics 1 for the variable category.

Category		N	Mean	Standard Deviation	Standard Error
Revenue	1-star	8	399284.25	334696.98	118333.25
	2-star	30	528545.3	453369.32	82773.53
	3-star	54	1702068.2	1480366.13	201452.31
	4-star	34	3467039.51	3009455.00	516117.27
	5-star	6	2932410.42	2482819.39	1013606.77
	Total	132	1866940.32	2173560.32	189184.14
Operating profit	1-star	8	22644.88	53497.41	18914.19
	2-star	30	3612.83	64258.42	11731.93
	3-star	54	-2125.79	979952.61	133354.66
	4-star	34	155161.16	621828.65	106642.73
	5-star	6	-630784.83	1000905.89	408618.12
	Total	132	12617.59	741336.05	64525.02
Gross profit	1-star	8	21956.77	54170.21	19152.06
	2-star	30	-3601.57	65592.2	11975.44
	3-star	54	6509.95	771427.73	104978.02
	4-star	34	40212.77	776732.98	133208.61
	5-star	6	-810320.98	973394.82	397386.77
	Total	132	-23299.6	678244.69	59033.62
Net profit	1-star	8	12913.38	41057.69	14516.08
	2-star	30	-9928.3	54990.16	10039.78
	3-star	54	-29563.58	745913.49	101505.97
	4-star	34	-40033.03	670125.01	114925.49
	5-star	6	-812509.33	971102.72	396451.02
	Total	132	-60811.78	634271.19	55206.22
Return on assets	1-star	8	3.16	8.29	2.93
	2-star	30	-151.05	831.77	151.86
	3-star	54	2.91	7.97	1.08
	4-star	34	-2.2	20.02	3.43
	5-star	6	-5	6.34	2.59
	Total	132	-33.74	396.7	34.53
Return on equity	1-star	8	2.61	73.83	26.1
	2-star	30	-82.66	539.41	98.48
	3-star	54	2.01	21.22	2.89
	4-star	34	0.61	106.42	18.25
	5-star	6	36.79	87.08	35.55
	Total	132	-15.98	263.44	22.93

Source: Compiled by authors based on the results of the SPSS analysis.

In reference to the profits per room, both the gross and the net profit per room have the highest average in 1-star hotels followed by hotels of the category 4-star, while other categories show negative figures, excepting the gross profit in 3-star hotels.

And finally, ROA ratio shows positive values only for the 1- and the 3-star hotels, being hotels of the categories 2- and 5-star with the lowest assets efficiency, whereas the ROE is quite high for the hotels of the highest category and only presents a negative value for the 2-star hotels.

Table VI. Descriptive statistics 2 for the variable category.

Category		N	Mean	Standard Deviation	Standard Error
Revenue per room	1-star	8	17544.84	20065.07	7094.07
	2-star	30	9297.96	4251.76	776.26
	3-star	54	16051.06	11869.21	1615.19
	4-star	34	21066.91	10222.8	1753.2
	5-star	6	26654.63	9890.7	4037.86
	Total	132	16380.74	11606.95	1010.26
Gross profit per room	1-star	8	751.5	3122.67	1104.03
	2-star	30	-457.7	1405.9	256.68
	3-star	54	233.86	2728.87	371.35
	4-star	34	709.83	4049.29	694.45
	5-star	6	-4750.59	5477.95	2236.36
	Total	132	4.09	3242.94	282.26
Net profit per room	1-star	8	415.02	2423.39	856.8
	2-star	30	-543.06	1310.87	239.33
	3-star	54	-8.89	2526.15	343.76
	4-star	34	187.29	3272.22	561.18
	5-star	6	-4813.12	5397.3	2203.44
	Total	132	-272.44	2856.33	248.61

Source: Compiled by authors based on the results of the SPSS analysis.

As for the statistical significance of these relationships, results are shown in the table VII. The category affects significantly the revenue, the revenue per room, the gross profit per room and the net profit per room (Sig. < 0.05). This influence is quite strong on the revenue (F = 11.67) and not that considerable on other variables.

Table VII. ANOVA for the variable category.

Category	Significance	F-value
Revenue	0.000	11.666
Revenue per room	0.000	6.247
Operating profit	0.215	1.472
Gross profit	0.071	2.215
Net profit	0.061	2.313
Return on assets	0.499	0.846
Return on equity	0.635	0.640
Gross profit per room	0.002	4.359
Net profit per room	0.001	4.810

Source: Compiled by authors based on the results of the SPSS analysis.

Size

Table VIII reports the descriptive analysis of the financial indicators according to the company's size. As we can see, the hotels of the sample are mostly small (79), and the proportion of medium-sized and large hotels is similar (28 vs. 25). The table shows that size affects positively the total revenue of the hotel companies and at the same time means lower profits, as the average operating, gross and net profit decrease as the hotels' size increases. Large hotels obtain much more losses than the small ones. While the operating profit is only negative in hotels of more than 200 rooms, total gross and net results in average mean losses for all the size categories.

As for the indicators per room, the revenue, the gross profits and the net profits per room are the lowest for the medium size hotels.

On the other hand, hotels of larger dimensions achieve higher profitability from the assets' investment and stakeholders' equity, whereas hotels with less than 100 rooms don't seem to manage their assets and liabilities in a profitable way.

Table VIII. Descriptive statistics for the variable size.

Size		N	Mean	Standard Deviation	Standard Error
Revenue	small	79	787680.72	826500.65	92988.59
	medium	28	2229653.6	1412301.45	266899.89
	large	25	4871161.76	2816757.45	563351.49
	Total	132	1866940.32	2173560.32	189184.14
Revenue per room	small	79	16541.66	13131.23	1477.38
	medium	28	15458.66	8282.94	1565.33
	large	25	16904.97	9818.97	1963.79
	Total	132	16380.74	11606.95	1010.26
Operating profit	small	79	35910.41	180798.01	20341.37
	medium	28	12141.79	557640.02	105384.06
	large	25	-60454.83	1592598.34	318519.67
	Total	132	12617.59	741336.05	64525.02
Gross profit	small	79	-2930.09	163559.23	18401.85
	medium	28	-45862.33	615332.28	116286.87
	large	25	-62396.99	1412254.26	282450.85
	Total	132	-23299.6	678244.69	59033.62
Net profit	small	79	-13024.75	142464.03	16028.46
	medium	28	-89403.11	557364.76	105332.04
	large	25	-179796.5	1325601.73	265120.35
	Total	132	-60811.78	634271.19	55206.22
Return on assets	small	79	-57.07	512.62	57.67
	medium	28	0.08	12.27	2.32
	large	25	2.11	17.33	3.47
	Total	132	-33.74	396.7	34.53
Return on equity	small	79	-28.98	338.54	38.09
	medium	28	-8.58	44.74	8.45
	large	25	16.81	48.27	9.65
	Total	132	-15.98	263.44	22.93
Gross profit per room	small	79	-1.95	2631.4	296.06
	medium	28	-145.23	3640.06	687.91
	large	25	190.44	4464.42	892.88
	Total	132	4.09	3242.94	282.26
Net profit per room	small	79	-219.87	2237.25	251.71
	medium	28	-437.33	3205.07	605.7
	large	25	-253.88	4082.58	816.52
	Total	132	-272.44	2856.33	248.61

Source: Compiled by authors based on the results of the SPSS analysis.

Among all the analysed variables only the revenue was found to be significantly influenced by the size. Other variables have no statistically significant relationship to the studied variable (See table IX).

Table IX. ANOVA for the variable size.

Size	Significance	F-value
Revenue	0.000	64.869
Revenue per room	0.887	0.042
Operating profit	0.854	0.599
Gross profit	0.913	0.462
Net profit	0.504	1.478
Return on assets	0.715	1.032
Return on equity	0.743	1.533
Gross profit per room	0.932	0.097
Net profit per room	0.942	0.345

Source: Compiled by authors based on the results of the SPSS analysis.

Chain affiliation

Comparing independent hotels with hotels belonging to chains, table X shows that there are much more independent hotels (98) than those belonging to chains (35) in our sample. It demonstrates that hotels in chain obtain higher revenues, but lower profits than the independent ones. The average income of hotels in chain more than doubles the income of independent hotels, but their average operating profit is lower.

Hotels in chain obtain negative gross and net profits, while the results before taxes of the independent hotels are still positive and the final losses they obtain are not so high.

Neither hotels belonging to chains, nor the independent hotels obtain profitability from their assets and shareholder's equity, showing independent hotels more negative results of the ROA and the ROE.

Table X. Descriptive statistics for the variable chain affiliation.

Chain Affiliation		N	Mean	Standard Deviation	Standard Error
Revenue	independent	97	1368762.22	1755618.46	178256.05
	chain affiliated	35	3247605.34	2613365.3	441739.36
	Total	132	1866940.32	2173560.32	189184.14
Revenue per room	independent	97	15765.96	11852.99	1203.49
	chain affiliated	35	18084.57	10877.47	1838.63
	Total	132	16380.74	11606.95	1010.26
Operating profit	independent	97	15645.01	802410.46	81472.44
	chain affiliated	35	4227.3	547204.4	92494.43
	Total	132	12617.59	741336.05	64525.02
Gross profit	independent	97	23228.13	671452.44	68175.67
	chain affiliated	35	-152247.89	690027.2	116635.88
	Total	132	-23299.6	678244.69	59033.62
Net profit	independent	97	-12802.26	627424.99	63705.36
	chain affiliated	35	-193866.73	643211.75	108722.63
	Total	132	-60811.78	634271.19	55206.22
Return on assets	independent	97	-45.54	462.77	46.99
	chain affiliated	35	-1.05	12.33	2.08
	Total	132	-33.74	396.7	34.53
Return on equity	independent	97	-21.16	302.8	30.74
	chain affiliated	35	-1.62	90.64	15.32
	Total	132	-15.98	263.44	22.93
Gross profit per room	independent	97	293.65	3274.39	332.46
	chain affiliated	35	-798.39	3056.98	516.72
	Total	132	4.09	3242.94	282.26
Net profit per room	independent	97	-14.11	2811.92	285.51
	chain affiliated	35	-988.4	2896.75	489.64
	Total	132	-272.44	2856.33	248.61

Source: Compiled by authors based on the results of the SPSS analysis.

According to the results presented in the table XI, chain affiliation only has a significant influence on the variables revenue, gross and net profits per room, but has no statistically significant relationship with other financial figures.

Table XI. ANOVA for the variable chain affiliation.

Size	Significance	F-value
Revenue	0.000	22.350
Revenue per room	0.313	1.027
Operating profit	0.938	0.006
Gross profit	0.191	1.731
Net profit	0.148	2.114
Return on assets	0.571	0.322
Return on equity	0.708	0.141
Gross profit per room	0.038	3.960
Net profit per room	0.035	4.039

Source: Compiled by authors based on the results of the SPSS analysis.

Conclusions

This paper studied the relationship between category, size and chain affiliation of hotel companies and their financial performance.

The results of the study support the findings of researchers that demonstrated the existence of the relationship between the hotels' financial performance and their category, size and chain affiliation. Though our empirical study gives an evidence of the influence of these variables on the financial performance of hotel companies, not all the financial indicators are being found to be significantly affected by them.

Category influences the hotels' total revenue and the revenue per room, as well as the gross and net profits per room. The relationship between category and revenue is found to be positive with some exceptions. Higher category means higher total revenue with the exception of the 5-star hotels that obtain lower revenues than those of the category 4-star. As for the revenue per room, it also increases with the category, excepting 1-star hotels, which average revenue is higher than in 2- and 3-star hotels. And in reference to profits, these are the highest in 4- and 1-star hotels and the lowest in 5- and 2-star hotels. Better survival of 1-star hotels can be explained by their higher occupancy rate in times of the crisis, while the extremely high losses of the 5-star hotels may be due to very high maintenance costs in the hotels of this category.

The variable size is found to have a statistically significant effect only on the revenue, larger hotels' size meaning higher revenue. These results confirm the findings of other studies that demonstrated higher performance levels and better survival of larger size hotels.

And as for the chain affiliation, it influences positively the revenue and negatively the gross and net profits per room of hotel companies. Hotels belonging to chains obtain much greater revenue than the independent hotels. However, their profits are extremely low compared to the hotels not belonging to chains, what is contrary to the findings of the reviewed studies.

According to the results, hotels of higher category, larger size and those belonging to chains still obtain higher earnings. However, their expenses seem to be extremely high, so they don't manage to cover them, and therefore, losses are unavoidable. This result can be explained by the high fixed expenses of these hotels that combined with a fall in the number of guests as a consequence of the crisis, lead the company to the negative results.

On the other hand, the average financial figures are found to be quite low for almost all the different groups of hotels. In times of crisis hotel companies do not seem to be able to cover their costs, among which are especially important the financial costs as the average gross profits turn negative, while the operating profits mostly have positive values. Hotels of all the different sizes and the hotels belonging to chains obtain losses as a consequence of their financial results.

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