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The influence of firm characteristics on profitability: Evidence from Italian hospitality industry

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# The influence of firm characteristics on profitability

## Evidence from Italian hospitality industry

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hospitality  
industry

2845

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### Abstract

**Purpose** – The purpose of this study is to inspect factors influencing profitability in the Italian hospitality industry during the period 2008-2016.

**Design/methodology/approach** – This paper examines the profitability and its determinants using a sample of 2,366 Italian hotels. The author applies a multidimensional measure of profitability comprising return on equity, return on assets, occupancy rate and gross operating profit per available room. The author investigates variables influencing performance and includes them into five groups: market variables, business model, ownership structure, management education and control variables.

**Findings** – The results show that financial crisis, business model and ownership structure affect hotel firms' profitability. Particularly, findings suggest that size, internationalization, location, accommodation as first activity and chain affiliation influence profitability positively.

**Research limitations/implications** – Results confirm the importance of firm-specific factors for evaluating the profitability of a hotel firm. Findings also provide new evidence for academics to assess factors that would guarantee profitability of hotels in developed countries such as Italy.

**Practical implications** – This investigation offers valued information and strategic suggestions for hotel investors, hotel owners, hotel managers, tourism playmakers and government.

**Originality/value** – This paper offers an in-depth examination of the practices and characteristics of profitable hotels in Italy. Few empirical studies examined the determinants of performance in the European and Italian hospitality field so far. Hence, this study attempts to bridge the gap in prior literature on profitability of the Italian hospitality industry.

**Keywords** Profitability, Tourism, Determinants, Hotel firms, Italian hospitality industry

**Paper type** Research paper

### 1. Introduction

It is well accepted that tourism industry is a large source of income for many developed and developing countries and it is one of the most profitable service industries. Actually, many studies consider tourism as one of the major elements of the economic expansion and the significant role of it in economic improvement makes the determinants of firm profitability crucial in this sector (Balaguer and Cantavella-Jorda, 2002; Dritsakis, 2004; Durbarray, 2002). According to the literature (Belloumi, 2010; Akinboade and Braimoh, 2010), an increasing number of tourists in a country leads to the development of gross domestic product (GDP) and the reduction of the unemployment rates (Sahli and Nowak, 2007). Tourism is one of the most active industries in Italian economy and it influences GDP, foreign exchange earnings and employment. Specifically, the impact of tourism industry to Italian GDP was approximately 6.3 per cent in 2016 (WTTC, 2017).

Although extensive tourism literature investigated the hotel profitability in developed countries, research studies on variables affecting performance in European and Italian hospitality industries are limited (Bresciani *et al.*, 2015; Santoro, 2015). This paper is the first



that empirically tests the influence of the crisis, business model, management education and ownership structure on hotel profitability whereas in Italy others studies explored the dynamic of hospitality sector by the evolution of its economic efficiency (Brida *et al.*, 2012; Brida *et al.*, 2015). Therefore, I inspected a number of variables verified to influence hotel profitability in prior literature and re-assessed previous findings using a sample of 2,366 Italian hotels. The study verifies whether variables such as macroeconomic conditions (financial crisis), business model (size, accommodation as first activity, location, internationalization and chain integration), management education and ownership structure impact on hotel performance. The findings revealed that the variables size, internationalization, accommodation as first activity, chain affiliation and location influence hotel profitability positively.

The study is structured as follows. Section 2 presents a literature review on performance in the hospitality industry and develops research hypotheses. Section 3 explains data sample and the econometric model applied. Empirical results are discussed in Section 4. Section 5 provides concluding remarks and offers some suggestions for future research.

## 2. Literature review and hypotheses development

The performance of tourism industry has been examined thoroughly in prior literature (Chen, 2010; Chen *et al.*, 2012; Guillet *et al.*, 2012; Sharma and Upneja, 2005; Turner and Guilding, 2011; Xiao *et al.*, 2012). Combining the studies concerning both profitability and the hospitality industry, I provide an overview of the researches on the determinants of hotel firms' profitability and develop our hypotheses. Academic literature have paid great attention to this issue and widely explored it theoretically and empirically. Hospitality literature investigated several external and internal (company-specific) factors as key determinants of profitability and the main conclusion emerging from most of the studies is that both factors can largely affect hotel performance (Chen, 2010; Pereira-Moliner *et al.*, 2010). For example, it is noted that location, internationalization, brand image, political events, natural disasters, financial crises and the growth rate of foreign tourist arrivals influence hotel performance (Chen *et al.*, 2012; Perrigot *et al.*, 2009; Turner and Guilding, 2011; Xiao *et al.*, 2012).

Some studies confirmed a relationship between external factors and hotel performance in tourism industry. Profitability varies because of some environmental forces and factors external to organization's boundaries (Chen, 2009; Gursoy and Swanger, 2007), such as seasonal and climate conditions, government policies, economic instability, inflation, taxes, privatization, non-economic events (e.g. terrorist attacks, natural disasters, wars, presidential elections and sports mega-events) and other economic variables. Other authors investigated the relationship between performance and internal factors regarding several hotel operations, functions and processes focused on production (Sigala, 2004), organization (Øgaard *et al.*, 2008) marketing (Kim and Kim, 2005) and strategy (Bresciani *et al.*, 2012). Internal factors also include various kinds of information and knowledge (Kim and Oh, 2004), human resource management, organizational structure, capabilities (i.e. core competencies) and internal strategic factors that a firm relies on to achieve competitive advantages (Sharma and Upneja, 2005; Gursoy and Swanger, 2007; Sainaghi, 2010). In our research, I explicitly examine the effect of internal and external variables, i.e. the financial crisis, the hotel's business model (size, location, internationalization accommodation as first activity, chain integration), the ownership structure and the management education. According to the prior literature, I seek to test the following hypotheses.

### 2.1 Performance and economic conditions

Prior literature stated that tourism development can increase economic expansion (Fayissa *et al.*, 2008; Kim *et al.*, 2006; Lee and Chang, 2008; Proenca and Soukiazis, 2008). Although

tourism sector contributes to improve the economy of many countries (Chen, 2007a, 2007b; 2010), economic conditions can have a considerable impact on this industry. Actually, there is no doubt that tourism performance is sensitive to climate changes, economic conditions and other factors. Seasonality is one of the challenges for this industry, which leads to instability in profitability, i.e. the profitability rises up when the economy is good but it reduces strongly as soon as the economy turns bad. Global economic crises have a powerful effect over tourism and especially over the hospitality industry (Agiomirgianakis *et al.*, 2013; Alonso-Almeida and Bremser, 2013; Chaston, 2012). The hotel industry is considered highly sensitive to economic conditions (e.g. financial crises) and to their negative impacts consisting of declining tourism demand and prices. For example, hotels suffered a severe decline of sales and profitability during the 2009 financial crisis and then they experienced reduced occupancy rates, decreases of revenue per available room and average daily rate (KapiKi, 2012; Melvin and Taylor, 2009), higher costs and difficulties in maintaining price positioning. Based on previous literature, I assume that the financial crisis (CRISIS) affects hotel profitability negatively. Hence, it can be assumed that:

H1. There is a negative relationship between financial crisis and hotel profitability.

### *2.2 Performance and business model*

The ability to clearly formulate and implement a coherent strategy is crucial for success in hospitality industry, and prior literature focused on hotels' corporate strategy to achieve a higher profitability. The strategic decisions regarding location (O'Neill and Mattila, 2006; Xiao *et al.*, 2012; Yang *et al.*, 2014), brand (Carvell *et al.*, 2016; Tavitiyaman *et al.*, 2012; Xiao *et al.*, 2012), chain affiliation, independently or franchised operating (Perrigot *et al.*, 2009), internationalization and hotel age (O'Neill and Mattila, 2006; Xiao *et al.*, 2012) impact on performance. Our study considers a number of factors correlated to hotels' corporate strategy that can influence profitability. Precisely, I inspect size, primary activity, location, internationalization and chain integration as variables of the "business model".

There are several prior studies investigating the influence of size on hotel financial performance (Assaf and Cvelbar, 2010; Claver-Cortés *et al.*, 2007; Israeli, 2002; Pine and Phillips, 2005). Many researchers (Israeli, 2002; Chen and Tseng, 2005; Barros and Mascarenhas, 2005; Rodriguez and Cruz, 2007) demonstrated a positive relationship between size and hotel profitability. This positive relationship is verified by Kim *et al.* (2013) for gross operating profit and occupancy rate (Banker *et al.*, 2005). Claver *et al.* (2006) verified that larger hotels attain higher levels of performance, as large firm size usually permits to incur in economies of scope or economies of scale resulting in lower operational costs (Santoro, 2015). They claimed that large and medium sized hotels are well performing than small ones. Pine and Phillips (2005) also proved these findings employing revenue per available room (RevPAR) as a profitability measure for hotels clustered by stars rating and ownership form. On the contrary, a large-sized hotel could be low in quality, as it offers more standardized products and services at lower prices. In this situation, hotel size may have a negative impact on profitability, as evidenced by Chen (2009) and Ben Aissa and Goaid (2014, 2016). Based on the majority of prior studies, I examine the impact of the variable size (SIZE) on Italian hotels and I suppose that it positively affects profitability.

Hotels generally provide a wide range of services, which may embrace accommodation, restaurants, public dining, banquet and entertainment facilities. I differentiate between hotels stating accommodation as first activity and those stating accommodation as a sideline, and I consider the influence of accommodation (ACC) on hotel profitability. The hospitality literature also proposes that location (LOC) is a key variable for the success or the

failure of hotel firms (Yang *et al.*, 2014; Ben Aissa and Goaid, 2016). Some studies noted that the location where a hotel firm operates is a crucial competitive factor in hospitality industry and it significantly affects profitability (Pan, 2005; Shoval *et al.*, 2011; Urtasun and Gutierrez, 2006). For example, Lado-Sestayo *et al.* (2016) demonstrated that profitability of Spanish hotels depends largely on the market structure and the demand of tourist destination. In general, a urban location results in superior demand, market competition, pricing capability and profitability, but in some circumstances, agglomeration has negative effects among hotels located in central districts (Lee and Jang, 2012). According to the business orientation, O'Neill and Mattila (2006) classified hotels firms as urban or leisure. Based on prior literature, I categorize hotels according to their geographic location: hotel firms located in coastal or/and scenic areas and hotels located in city areas (i.e. urban district location). Relationship between location and performance is special in Italy, as all the attractions (ancient monuments, art, culture, mountains, coastline/beaches, cuisine and fashion, etc.) are broadly distributed over the country. Hence, I test whether the location (LOC) is associated with profitability and I expect hotel located in coastal or/and scenic areas to be more profitable than others.

The international attractiveness of hotels is considered another crucial determinant of hotel profitability, but limited literature studied this variable empirically. For example, Lee (2008) and Tang and Jang (2009) examined the impact of internationalization on hotel performance and they found that publicly traded US hotels may take advantage of an international customer orientation. Internationalization enables firms to benefit from the acquisition of international knowledge, experience and operational flexibility that enhance competitive positioning within international markets (Lee *et al.*, 2014; Zahra *et al.*, 2000). On the contrary, Graves and Shan (2014) demonstrated that internationalization of Australian SMEs has a negative influence on return on assets (ROA). Based on the majority of prior studies, I investigate the impact of internationalization (INTER) on hotel profitability and assume that internationalized hotels show a higher profitability than non-internationalized hotels.

The choice between independence and affiliation to international chain brands is the most studied variable in the hotel performance literature (Bresciani *et al.*, 2015). Several studies examined the influence of chain integration on hotel performance and most of them demonstrated that hotel chains are more efficient in achieving higher performance than independent hotels (Chen and Huang, 2001; Chen, 2007a, 2007b). Being part of a chain presents advantages and disadvantages but most studies found that the advantages are more significant than disadvantages. As a result of synergies, hotels belonging to a chain share economies of scale and scope and result in more possibilities of funding and investments, lower costs, and higher bargaining power (Botti *et al.*, 2009; Chen and Huang, 2001). I categorize hotel firms according to chain affiliation: independent hotels (one hotel) and those belonging to a chain (two or more hotels). I suppose a positive relationship between chain integration (CHAIN) and hotel profitability. Therefore, our second assumption is formulated as follows:

H2. There is a positive relationship between business model and hotel profitability.

### 2.3 Performance and management education

As the hospitality sector requires a wide variety of activities (e.g. accommodation, laundry service, food and beverage, business facilities, entertainment, etc.) and skills, high-quality education and training of managers are even more crucial to improve efficiency and hotel performance (Ben Aissa and Goaid, 2016; Thomas and Long, 2001). Xiao *et al.* (2008) demonstrated that hotels employing highly educated managers who are able to cope with

different demands and supplies are more profitable. Therefore, hotels can achieve competitive advantage through managers' education and training approaches (Kim and Oh, 2004; Wang and Shyu, 2008). Furthermore, Campos *et al.* (2005) suggested that management skills are increasingly significant than the efficiency of other specific operational resources for rising hotel performance. They argued that hotel firms using high-quality training and education are more profitable than those focused on production optimization only. The findings of prior literature lead us to hypothesize that hotels operating under general and financial managers with high education level (bachelor's degree) achieve higher performance:

- H3. There is a positive relationship between management education and hotel profitability.

#### 2.4 Performance and ownership

I explore whether ownership structure is related to profitability. The influence of ownership concentration, board's independence and managerial style on performance received special attention in prior literature (Ali *et al.*, 2007; Hope *et al.*, 2013; Kim and Jang, 2012; Wang, 2006). Some authors confirmed that family firms are more profitable than non-family ones as family ownership decreases agency conflicts between managers and owners (Ali *et al.*, 2007; Wang, 2006). Xiao *et al.* (2012) focused on the role of hotel owners in attaining high financial performance and they demonstrated that hotel owners' skills in implementing corporate strategies are very crucial for hotel financial performance. Brady and Conlin (2004) studied profitability of real estate investment trusts and they found that – on average – real estate investment trusts-owned hotels perform better than non-real estate investment trusts properties. Hence, it is difficult to anticipate the sign of the relationship between ownership structure and profitability but I expect a negative association (Parte-Esteban and Ferrer Garcia, 2014):

- H4. There is a negative relationship between ownership structure and hotel profitability.

Finally, control variables have been included in the study to decrease the noise in measurement of accounting changes' effect on profitability. I consider leverage (LEV), losses in earnings (LOSS), standard deviation of sales revenues d(SALES) and standard deviation of cash flow d(CFO). I expect the influence of LEV, LOSS, d(SALES) and d(CFO) to be negatively associated with hotel profitability.

To get some perspectives on the current state of the literature concerning the determinants of profitability in hospitality industry, I include the most important similar studies carried out to date as shown in Table I.

### 3. Dataset, variables and research methodology

#### 3.1 Dataset and sample selection

To investigate the determinants of hotel profitability, I used a regression model and I applied unbalanced panel data of 2,366 hotels covering the period 2008-2016. As in many prior studies, I implemented both a descriptive analysis and a multivariate analysis to study the combined effect of explanation variables on the degree of profitability of selected hotel firms. Three models are verified in the study and each one comprises a specific measure of profitability alternatively. The regression analysis includes three dependent variables (ROE, ROA and OCCR) and ten determinants of profitability as independent variables (CRISIS, SIZE, ACC, LOC, INT, CHAIN, EDU-GM, EDU-FM, FAM and SHARE).



**Table I.**  
Prior literature on  
determinants of hotel  
profitability

Variables	Effects on hotel profitability	References
<i>Independent variables</i>		
<i>Market variables</i>		
CRISIS	Negative	Melvin and Taylor (2009), KapiKi (2012); Chaston (2012), Alonso-Almeida and Bremser (2013); Agiomirgianakis <i>et al.</i> (2013)
<i>Business model</i>		
SIZE	Positive	Israeli (2002), Barros and Mascarenhas (2005), Chen and Tseng (2005), Claver <i>et al.</i> (2006); Claver-Cortés <i>et al.</i> (2007); Rodriguez and Cruz (2007), Kim <i>et al.</i> (2013); Ben Aissa and Goaid (2014), Santoro (2015)
ACC	Negative	Chen (2009); Ben Aissa and Goaid (2014, 2016)
LOC	Positive	Parte-Esteban and Ferrer Garcia (2014)
	Positive	Chen (2003); Pan (2005), Urtasun and Gutierrez (2006); Shoval <i>et al.</i> (2011), Yang <i>et al.</i> (2014); Ben Aissa and Goaid (2016), Lado-Sestayo <i>et al.</i> (2016)
INT	Negative	Lee and Jang (2012)
	Positive	Zahra <i>et al.</i> (2000), Lee (2008); Lee <i>et al.</i> (2014)
	Negative	Graves and Shan (2014)
CHAIN	Positive	Chen and Huang (2001); Chen (2007a, 2007b); Botti <i>et al.</i> (2009), Bresciani <i>et al.</i> (2015)
<i>Management education</i>		
EDU-GM/EDU-FM	Positive	Thomas and Long (2001), Kim and Oh (2004); Campos <i>et al.</i> (2005), Wang and Shyu (2008); Xiao <i>et al.</i> (2008), Ben Aissa and Goaid (2016)
<i>Ownership structure</i>		
FAM/SHAR	Positive	Wang (2006), Ali <i>et al.</i> (2007)
	Negative	Brady and Conlin (2004), Parte-Esteban and Ferrer Garcia (2014)

The sample comprises hotels reporting financial information yearly over the period 2008-2016. The study is based on a comprehensive database (AIDA) including financial data of most Italian firms. I collected dataset directly from chain-affiliated hotels or independent hotel operating in Italy. I selected hotels stating accommodation as first activity and a sideline. I removed observations with total assets less than 1 and with missing values. The selection process results in a sample of 2,366 hotels and 18,928 hotels' observations. The sample consists mainly of family firms and SME firms (about 57 per cent compared to other ownership structures). Most of the hotels in the model are not internationalized, do not operate under managers because of the small size and are located in attractive and coast areas. The sample also encloses independent and chain-affiliated hotels.

### 3.2 Performance measures

ROE, ROA, occupancy rate, stock return, productivity and profit per unit of production have been widely considered measures of performance in hospitality literature (Chen, 2010; Chen *et al.*, 2012; Guillet *et al.*, 2012; Kim and Gu, 2005; Turner and Guilding, 2011; Xiao *et al.*, 2012). Although the definition of profitability varies among studies, I examined return on equity (ROE), ROA, occupancy rate (OCCR) and gross operating profit per available room (GOPPAR) as alternative measures of hotel profitability (i.e. dependent variables) in line

with previous literature. ROE is the first dependent variable included in the analysis, as it measures the return to stakeholders from every unit of equity. As ROA is another significant measure to compare the operating performance of hotels (i.e. for hotels which usually report a higher ROA but a lower ROE due to a lower leverage ratio), I considered it as the second dependent variable in the regression model. In addition, the OCCR is a commonly used measure of performance in hotel industry (Gray and Liguori, 2003; Sun and Lu, 2005), considering the dislike of hotel managers to give information on profitability. OCCR is the percentage of occupancy and it expresses the relationship between the number of rooms occupied and the total number of hotel rooms that can be occupied (available rooms). Finally, hotel performance is measured in terms of gross operating profit as a profitability measure that reflects the manager's effectiveness. For our purposes, GOPPAR is calculated as total revenue per available room (TREVPAR) from rooms less departmental and undistributed operating expenses per available room (COSTOAR) (Banker *et al.*, 2005; Dev *et al.*, 2009; O'Neill *et al.*, 2008).

### 3.3 Determinants of profitability

As potential determinants of hotel profitability, I considered ten independent variables and organized them into five groups: market variables, business model, ownership structure, management education and control variables. Regarding market variables, I explored the impact of financial crisis on profitability (CRISIS) through binary variables representing economic conditions. I used a dummy variable taking value 1 for the crisis period 2008-2010 and 0 for the post-crisis period. Although the economic crisis started in 2007 in banking system (Alonso-Almeida and Bremser, 2013), I dated the financial crisis to 2008 because the real effects of it on the hospitality industry began in 2008 and peaked until 2010.

The variables related to business model are size, accommodation as primary activity, location, internationalization and the choice between operating independently and under a hotel chain. In hospitality literature, several studies focused on hotel's corporate strategy as the set of organizational and strategic solutions through which the hotel firm operates to achieve a higher performance (Parte-Esteban and Ferrer Garcia, 2014). In our study, I define SIZE variable as a dummy variable taking value 1 for large hotels and 0 for small hotel firms. To classify a hotel as small or large, I compute the average total assets of all the hotels in our data set throughout the entire study period. Hotels whose average falls below the overall are classified as small, while hotels whose average falls above the overall are classified as large. This classification method ensures that each hotel firm stays in the same size class throughout the entire period.

To recognize the first activity of the hotel (ACC), I used a dummy variable taking value 1 if the hotel states accommodation as its first activity and 0 if the hotel states accommodation as its secondary activity. The variable location (LOC) represents the geographical position of the hotel: coastal and/or scenic location and urban location (O'Neill and Mattila, 2006). LOC takes value 1 for hotels located in coastal and/or scenic areas and 0 for those positioned in urban areas. The variable internationalization (INT) takes value 1 for internationalized hotel firms and 0 for non-internationalized hotel firms. Organizational structure allows us to discriminate between contractual organizational forms adopted by hotels. CHAIN is the hotel affiliation to a chain. Specifically, I consider a dummy variable (CHAIN) taking value 1 for a chain-affiliated hotel (vertically integrated hotel, franchise agreements or voluntary chain) and 0 for an independent hotel. Following previous studies on ownership structure (Perrigot *et al.*, 2009; Xiao *et al.*, 2012), I distinguished between family ownership (FAM) and other



ownership structures, i.e. institutional ownership and varied ownerships that mix different types (e.g. family and financial). In addition, I include in the model a variable that measures ownership concentration. That is, I define SHAR as a dummy variable that takes value 1 for hotels where shareholders hold more than 30 per cent equity directly or indirectly. The variables regarding management education are measured on the basis of hospitality literature. That is, I define EDU-GM and EDU-FM as dummy variables that take value 1 for hotels operating under well-educated (bachelor's degree) general and financial managers and 0 otherwise.

Based on previous studies (Kim *et al.*, 2013) on the determinants of hotel performance, I considered the control variables. The variable Leverage (LEV) is the ratio of total amount of liabilities to total amount of assets. The variable loss (LOSS) is measured by the number of years of losses in relation to the total number of years of operation. Finally, standard deviation of sales revenues  $d(\text{SALES})$  and standard deviation of cash flow  $d(\text{CFO})$  are comprised in the regression model. Table II lists all the variables examined to assess profitability and its determinants.

### 3.4 The regression model

To test the relationship between hotel profitability and its determinants, I estimated a linear regression model using a sample of Italian hotel firms in the 2008-2016 period. Our data set proves that Italian hotel firms present similar reply to cyclical movements. I decided to estimate a panel data regression using OLS method because of its general quality of minimized bias and variance. In line with Baltagi (2001), I applied panel data, which ensure less collinearity among the variables and more variability. Moreover, panel data control for time invariant variables and individual heterogeneity unlike a time series analysis or cross-sectional data.

To inspect the determinants of profitability, I formulated the following linear regression model:

$$y_{jt} = \delta_0 + \alpha'_i X_{ijt} + \varepsilon_{jt} \quad (1)$$

where  $j$  refers to a specific hotel firm;  $t$  refers to year;  $y_{jt}$  refers to the profitability of hotel firm  $j$  in a specific year  $t$ ;  $X_i$  represents the determinants of hotel profitability;  $\varepsilon_{jt}$  is a normally distributed random variable disturbance term (error term).

Extending equation (1), the regression model is estimated in the following form:

$$\begin{aligned} y_{jt} = & \delta_0 + \alpha_1 \text{CRISIS}_{jt} + \alpha_2 \text{SIZE}_{jt} + \alpha_3 \text{ACC}_{jt} + \alpha_4 \text{LOC}_{jt} + \alpha_5 \text{INT}_{jt} + \alpha_6 \text{CHAIN}_{jt} \\ & + \alpha_7 \text{EDU} - \text{GM}_{jt} + \alpha_8 \text{EDU} - \text{FM}_{jt} + \alpha_9 \text{FAM}_{jt} + \alpha_{10} \text{SHAR}_{jt} \\ & + \alpha_{11} \text{LEV}_{jt} + \alpha_{12} \text{LOSS}_{jt} + \alpha_{13} d(\text{SALE})_{jt} + \alpha_{14} d(\text{CFO})_{jt} + \varepsilon_{jt} \end{aligned} \quad (2)$$

where  $Y_{jt}$  is the profitability of hotel firm  $j$  at time  $t$ . The variables ROE, ROA, OCCR and GOPPAR represent four alternative performance measures for the hotel firm  $j$  during the period  $t$ . Hence, four models are alternatively tested and each one encompasses a different measure of profitability (dependent variable).

Equation (2) is estimated taking each measure of hotel profitability as dependent variable. I checked for individual heterogeneity by means of either a fixed effects or a random effects model, as fixed effects models deliver unbiased measurements but

Variable	Description	Measure
<i>Dependent variables</i>		
ROE	Return on equity	Net income/Average total equity (%)
ROA	Return on assets	Net income/Average total assets (%)
OCCR	Occupancy rate	Units (rooms) rented out/Total units (rooms) available (%)
GOPPAR	Gross operating profit per available room	Total revenue per available room less operating expenses per available room
<i>Independent variables</i>		
<i>Market variables</i>		
CRISIS	Financial crisis. Dummy variable taking the value of 1 for (2008-2010) period, or 0 otherwise	
<i>Business model</i>		
SIZE	Dummy variable taking the value 1 for large firms, or 0 for small firms	
ACC	Dummy variable taking the value 1 for firms declaring accommodation as first activity, or 0 otherwise	
LOC	Dummy variable taking the value 1 for firms located in coast areas, or 0 otherwise	
INT	Dummy variable taking the value 1 for internationalized firms, or 0 otherwise	
CHAIN	Dummy variable taking the value 1 for a chain-affiliated firm, or 0 for the independent firms	
<i>Management education</i>		
EDU-GM	Dummy variable taking the value 1 for bachelor's degree of the general manager, or 0 otherwise	
EDU-FM	Dummy variable taking the value 1 for bachelor's degree of the financial manager, or 0 otherwise	
<i>Ownership structure</i>		
FAM	Dummy variable taking the value 1 for family firms, or 0 otherwise	
SHAR	Dummy variable taking the value 1 for shareholder ownership of more than 30% equity	
<i>Control Variables</i>		
LEV	Financial leverage, measured as total liabilities divided by total equity	
LOSS	Number of years with negative net income before extraordinary items divided by the total number of years for each firm	
d(SALES)	Sales volatility. Sales volatility measure as the standard deviation of sales revenues scaled by total assets	
d(CFO)	Cash flow volatility. Standard deviation of CFO scaled by total assets	

**Table II.**  
Explanation of  
variables

cannot estimate the effect of time invariant variables (e.g. location). The choice of a fixed effects model has been tested through Hausman test (Baltagi, 2001). I also used the Breusch–Pagan test to control residual heteroscedasticity. I eliminated the firm-level heterogeneity using cross-sectional mean deviation data.

To investigate the profitability determinants, I use a univariate analysis. I calculated the Pearson matrix to study the correlations between the profitability measures, the explanatory and the control variables. I also assessed a panel data regression by means of OLS. All regression models include clustered standard errors by hotel to adjust for serial correlation. To maximize observations, I examined the variables block by block. For instance, the data for bachelor's degree of general and financial managers (EDU-GM, EDU-FM) are not available for the entire sample because most hotels do not operate under managers.

**4. Results and discussion**

Tables III, IV and V present descriptive statistics, correlation coefficients and multivariate regression results, respectively.

*4.1 Descriptive statistics*

Table III lists the results of descriptive statistics for the dependent variables (ROE, ROA, OCCR and GOPPAR) and the control variables [LEV, LOSS, d(SALES), d(CFO)].

Table IV shows differences in profitability between clusters of hotels classified by the explanatory variables. The *t*-mean and Mann–Whitney U test are mostly valuable in measuring differences between two independent groups. The *t*-mean test and the non-parametric Mann–Whitney U test detect statistically significant differences in the mean and median of profitability measures confirming the null hypothesis that two populations share the same distribution in the four dependent variables (ROE, ROA, OCCR and GOPPAR).

Table IV reveals statistically significant ( $p < 0.01$ ) differences in the alternative profitability measures according to the hotels' business strategy. The differences are statistically significant ( $p < 0.01$ ) in line with the *t*-mean. Specifically, I observed variations between large and small hotels, hotels stating accommodation as first activity and those stating accommodation as a sideline, hotels situated in coastal and/or scenic locations and hotels situated in urban locations, international hotels and domestic hotels, chain-affiliated hotels and independent hotels. The non-parametric Mann–Whitney U test also shows variations between other variables. Family hotels exhibit lower values of profitability measures than other types of hotel firms. The share of equity held by shareholders (SHARE) reveals statistically significant differences in the profitability indexes. Remarkably, hotels operating under general and financial managers with a high education do not show higher profitability values than hotels operating under non well-educated managers. The coefficients are statistically significant ( $p < 0.05$ ). These findings do not support prior

**Table III.**  
Descriptive statistics

Variables	Minimum	Maximum	Mean	Median	SD
<i>Dependent variables</i>					
ROE	-94.5780	21.9700	0.303074	4.33500	15.5895
ROA	-6.83400	1.62400	0.079160	0.18600	0.80740
OCCR	0.25600	4.45400	1.352662	1.13500	0.77699
GOPPAR	12.1770	27.8650	20.46500	20.3850	9.01000
<i>Control variables</i>					
LEV	1.065	0.719	0.090	5.650	1.256
LOSS	0.090	5.650	0.334	0.253	0.287
d(SALES)	0.129	0.490	0.220	0.112	0.216
d(CFO)	0.592	0.890	0.610	0.178	0.329

Variable	CRISIS	SIZE	ACC	LOC	INT	CHAIN	EDU-GM	EDU-FM	FAM	SHARE
Type	2008-2010	Large	Primary	Coast	Yes	Yes	Yes	Yes	Yes	>30%
ROE_Mean	0.470	0.547	0.505	0.501	0.591	0.513	0.516	0.509	0.499	0.499
ROE_Median	0.525	0.553	0.509	0.506	0.596	0.520	0.518	0.513	0.505	0.502
ROE_Std Dev	0.148	0.153	0.139	0.138	0.154	0.135	0.141	0.135	0.140	0.201
ROA_Mean	0.527	0.573	0.518	0.512	0.508	0.519	0.502	0.501	0.498	0.489
ROA_Median	0.539	0.587	0.520	0.519	0.511	0.523	0.510	0.509	0.504	0.498
ROA_Std Dev	0.143	0.161	0.147	0.139	0.147	0.138	0.149	0.141	0.145	0.198
OCRR_Mean	0.429	0.588	0.532	0.498	0.501	0.501	0.508	0.504	0.500	0.487
OCRR_Median	0.478	0.597	0.536	0.503	0.506	0.509	0.511	0.512	0.505	0.487
OCRR_Std Dev	0.138	0.154	0.150	0.137	0.145	0.140	0.147	0.142	0.148	0.193
GOPPAR_Mean	0.537	0.555	0.545	0.505	0.523	0.512	0.518	0.546	0.510	0.498
GOPPAR_Median	0.496	0.586	0.549	0.521	0.536	0.524	0.522	0.521	0.522	0.494
GOPPAR_Std Dev	0.226	0.199	0.170	0.142	0.185	0.150	0.157	0.152	0.168	0.196
Type	2011-2016	Small	Secondary	Urban	No	No	No	No	No	<30%
ROE_Mean	0.471	0.589	0.466	0.492	0.492	0.489	0.496	0.494	0.503	0.521
ROE_Median	0.526	0.591	0.471	0.499	0.496	0.496	0.502	0.495	0.510	0.533
ROE_Std Dev	0.149	0.155	0.150	0.149	0.143	0.142	0.132	0.139	0.139	0.193
ROA_Mean	0.528	0.591	0.465	0.497	0.499	0.490	0.497	0.499	0.504	0.526
ROA_Median	0.540	0.593	0.470	0.503	0.502	0.495	0.500	0.502	0.510	0.532
ROA_Std Dev	0.141	0.149	0.149	0.145	0.149	0.145	0.135	0.133	0.137	0.194
OCRR_Mean	0.430	0.595	0.485	0.488	0.498	0.496	0.492	0.493	0.507	0.520
OCRR_Median	0.477	0.699	0.493	0.492	0.504	0.501	0.496	0.498	0.511	0.531
OCRR_Std Dev	0.139	0.152	0.146	0.146	0.147	0.147	0.138	0.137	0.140	0.190
GOPPAR_Mean	0.139	0.151	0.150	0.156	0.147	0.147	0.139	0.138	0.139	0.198
GOPPAR_Median	0.440	0.583	0.477	0.493	0.488	0.486	0.499	0.488	0.517	0.525
GOPPAR_Std Dev	0.456	0.685	0.482	0.489	0.513	0.506	0.494	0.483	0.521	0.536
t-mean	0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00
Mann-Whitney U test	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00

**Table IV.**  
t-Mean test and  
Mann-Whitney U  
test for profitability  
differences

**Table V.**  
Correlation matrix

Variables	ROE	ROA	OCCR	GOPPAR	CRISIS	SIZE	ACC	LOC	INT
ROE	1.0000								
ROA	0.1088	1.0000							
OCCR	0.3513	0.4478	1.0000						
GOPPAR	0.5127	0.4186	0.3822	1.0000					
CRISIS	-0.0043	-0.0575	-0.0489	-0.0478	1.0000				
SIZE	0.0321***	0.0350***	0.0413***	0.0424***	0.0236	1.0000			
ACC	0.1243***	0.1486***	0.1418***	0.1487***	-0.0125	0.1843***	1.0000		
LOC	0.0288***	0.0287***	0.0258***	0.0279***	0.0000	0.1987***	0.0920***	1.0000	
INT	0.0364***	0.0237***	0.0233***	0.0244***	0.0000	0.1122***	-0.0489**	-0.0044	1.0000
CHAIN	0.0755***	0.0712***	0.0731***	0.0773***	0.0000	0.3213***	0.1241***	0.0878***	0.0498***
EDU-GM	0.0379	0.0347	0.0328	0.0345	0.0000	0.5318***	0.1351	0.1407***	0.1092***
EDU-FM	0.0418	0.0486	0.0479	0.0488	0.0000	0.5597***	0.1259	0.1418***	0.1046***
FAM	-0.0156***	-0.0156***	-0.0182***	-0.0195***	0.0000	-0.3639***	-0.0923***	-0.0908***	-0.0911***
SHARE	-0.0499***	-0.0456***	-0.0423***	-0.0447***	0.0000	-0.0143	-0.0143***	0.0174**	0.4073**
LEV	-0.0145	-0.0138	-0.0138	-0.0149	-0.0210***	0.0529***	-0.0404***	-0.0112	0.0127
LOSS	-0.1537***	-0.1575***	0.1472***	0.1481***	0.0000	-0.0178*	-0.0428***	-0.0316***	-0.0260***
d(SALES)	-0.3989***	-0.3783***	-0.3477***	-0.3577***	-0.1482***	-0.4382***	-0.1874***	-0.1210***	-0.0174*
d(CFO)	-0.5864***	-0.5710***	-0.5451***	-0.5562***	0.0398	-0.2513***	-0.1565***	-0.0348***	-0.0087

Notes: \*, \*\*, and \*\*\*denotes level of significance at the 0.10, 0.05 and 0.01 levels, respectively Please see Table I for variables definitions

(continued)

Variables	CHAIN	EDU-GM	EDU-FM	FAM	SHARE	LOSS	d(SALES)	d(CFO)
ROE								
ROA								
OCCR								
GOPPAR								
CRISIS								
SIZE								
ACC								
LOC								
INT								
CHAIN	1.0000							
EDU-GM	0.0078	1.0000						
EDU-FM	0.0083	0.4410***	1.0000					
FAM	-0.2391***	-0.4240***	-0.2416***	1.0000				
SHARE	-0.0689**	-0.0021*	0.0684***	0.0389***	1.0000			
LEV	-0.1082***	0.0015	0.2451***	0.0074	0.0249**			
LOSS	-0.0415***	0.0388***	0.0582***	-0.1389***	0.0454***	1.0000		
d(SALES)	-0.1513***	-0.1132***	0.2261***	0.1282***	0.0232*	0.0076	1.0000	
d(CFO)	-0.0833***	0.0126	0.2036***	-0.02523**	0.0529***	0.1086***	0.5098***	1.0000



studies verifying that high-quality education is directly related to hotel performance (Campos *et al.*, 2005).

#### 4.2 Regression analysis

Table V reports correlation coefficients of the variables included in the regression analysis.

The profitability measures are positively associated with larger hotels (SIZE), hotels declaring accommodation as first activity (ACC), hotels located in coastal and/or scenic areas (LOC), internationalized hotels (INT) and chain-affiliated hotels (CHAIN). The coefficients are statistically significant ( $p < 0.01$ ). On the contrary, ROE, ROA and OCCR are negatively related with ownership concentration (SHARE) and family ownership (FAM). Family firms (FAM) show lower profitability than other kinds of ownership and the proportion of equity held by stakeholders (SHARE) generates statistically significant differences in hotel profitability. In addition, the relationships between CRISIS and profitability measures are negative but they are not statistically significant. Regarding the control variables, hotels with greater sales volatility [d(SALES)], higher operating cash flow volatility [d(CFO)] and superior occurrence of losses (LOSS) show lower values of ROE, ROA, OCCR and GOPPAR. Table V also shows that the correlation between explanatory variables is not high. FAM is negatively related to firm size (SIZE), showing that generally family hotels are smaller. FAM is also negatively correlated with internationalization (INT), chain integration (CHAIN) and the education of general (EDU-GM) and financial (EDU-FM) managers. On the contrary, FAM is positively related with SHARE, indicating that family hotels are marked by greater concentration. Finally, SIZE is positively associated with location (LOC) and chain integration (CHAIN), proving that large hotels tend to be located in coastal and/or scenic areas and they are likely to expand their business through management contracts, mergers or franchising. Regression results are displayed in Table VI.

Table VI reports the regression models for ROE, ROA, OCCR and GOPPAR. I investigate the results of the multivariate analysis introducing the explanatory variables by blocks to enlarge the sample size as much as possible. First, I examined the variable CRISIS, the business model variable and the control variables (basic models). Then, I added the variables of ownership structure and ownership concentration in the basic model, and finally, I completed the basic model with management education. The results of the models (not reported) agree with the findings of the full models reported in Table VI.

The models perform rationally well with most variables remain stationary across the different regression models. The explanatory power of the regressions is sensibly high since the  $R$ -squared adjusted ranges from 0.599 to 0.676. Model 3 shows the highest value for  $R$ -squared adjusted (0.676) which evidences that about 67 per cent of the variation of OCCR is explicated by the explanatory variables comprised in the model. The coefficients for CRISIS are statistically significant ( $p < 0.01$ ) and negative. The findings demonstrated that hotel firms can get a superior occupancy rate when the economy is growing and the foreign tourist market is expanding. Hence, hotel profitability relies on economic development and growth of foreign tourist markets. The coefficients of business model are statistically significant ( $p < 0.01$ ) across the models and findings positively answer  $H2$ , i.e. there is a positive relationship between business model and hotel profitability.

Despite the results found by Chen (2009) and Ben Aissa and Goaid (2014, 2016), our analyses show that SIZE ensures a significant positive effect on hotel performance. The coefficients indicate that larger hotels succeed better than smaller ones in attaining higher ROE, ROA OCCR and GOPPAR. Findings are consistent with prior evidence (Barros and Mascarenhas, 2005; Chen and Tseng, 2005; Israeli, 2002; Kim *et al.*, 2013; Rodriguez and Cruz, 2007; Santoro, 2015). Large hotels record high occupancy and high

	Coefficient	Std. Error	t-ratio	p-value
<i>Model 1 - Dependent variable: ROE</i>				
const	0.5522	0.4986	4.1357	0.0000
CRISIS	-0.0335	0.0027	-2.3186	0.0021
SIZE	0.0116	0.0041	0.0324	0.0000
ACC	0.0041	0.0280	0.4691	0.6418
LOC	0.0045	0.0866	0.2534	0.5645
INT	0.0155	0.0081	0.9352	0.0226
CHAIN	0.0089	0.0292	0.6997	0.0887
EDU-GM	0.0405	0.0096	0.9523	0.0229
EDU-FM	0.0496	0.0494	0.0507	0.0218
FAM	-0.0198	0.0694	-0.3494	0.0024
SHARE	0.0074	0.1554	0.2226	0.0841
LEV	-0.0013	0.0049	-0.4800	0.1413
LOSS	-0.0116	0.1590	-0.3183	0.0921
d(SALES)	-0.1327	0.0924	0.3547	0.0000
d(CFO)	-0.5587	0.0042	1.3737	0.0000
Obs.	18,928			
Prob > F	0.000			
R <sup>2</sup>	0.325			
Adjusted R <sup>2</sup>	0.599			
<i>Model 2 - Dependent variable: ROA</i>				
const	0.5398	0.0079	3.6473	0.0000
CRISIS	-0.0250	0.0027	-1.8552	0.0000
SIZE	0.0268	0.0134	0.0787	0.0000
ACC	0.0068	0.2779	0.3403	0.0056
LOC	0.0087	0.0884	0.1434	0.0000
INT	0.0216	0.0034	0.8152	0.0122
CHAIN	0.0077	0.0038	0.8873	0.0018
EDU-GM	0.0234	0.0290	-0.5107	0.0214
EDU-FM	0.0213	0.0399	0.7971	0.0227
FAM	-0.0939	0.9855	-1.6611	0.0197
SHARE	0.0075	0.0004	0.1090	0.0913
LEV	0.0000	0.0135	-0.4768	0.2139
LOSS	-0.0043	0.0044	0.4647	0.0000
d(SALES)	-0.0059	0.0255	1.5289	0.0000
d(CFO)	-0.6370	0.02142	1.0807	0.0000
Obs.	18,928			
Prob > F	0.000			
R <sup>2</sup>	0.336			
Adjusted R <sup>2</sup>	0.662			
<i>Model 3 - Dependent variable: OCCR</i>				
const	0.5584	0.0653	6.0938	0.0000
CRISIS	-0.0263	0.0027	-2.3186	0.0000
SIZE	0.0280	0.0796	2.7121	0.0201
ACC	0.0513	0.0280	0.4691	0.1218
LOC	0.0028	0.9565	0.7923	0.4637
INT	0.0070	0.3495	0.3899	0.0413
CHAIN	0.0097	0.0038	0.8873	0.0000
EDU-GM	0.0323	0.0291	-0.4101	0.0214
EDU-FM	0.0342	0.0390	0.8771	0.0262

(continued)

**Table VI.**  
OLS Regression  
analysis

	Coefficient	Std. Error	t-ratio	p-value
FAM	-0.0963	0.0378	-0.8843	0.0217
SHARE	0.0073	0.0035	1.4689	0.0980
LEV	-0.0016	0.1746	-0.3767	0.0086
LOSS	-0.0212	0.0362	-0.3644	0.0000
d(SALES)	-0.0781	0.0033	0.7029	0.0000
d(CFO)	-0.6162	0.0035	0.3557	0.0000
Obs.	18,928			
Prob > F	0.000			
R <sup>2</sup>	0.359			
Adjusted R <sup>2</sup>	0.676			
<i>Model 4 – Dependent variable: GOPPAR</i>				
const	0.5673	0.0664	6.0948	0.0000
CRISIS	-0.0272	0.0031	-2.3195	0.0000
SIZE	0.0294	0.0792	2.7132	0.0211
ACC	0.0512	0.0290	0.4695	0.1228
LOC	0.0032	0.9576	0.7933	0.4631
INT	0.0072	0.3489	0.3889	0.0422
CHAIN	0.0095	0.0042	0.8869	0.0000
EDU-GM	0.0329	0.0298	-0.4112	0.0216
EDU-FM	0.0352	0.0395	0.8782	0.0272
FAM	-0.0972	0.0382	-0.8834	0.0228
SHARE	0.0083	0.0037	1.4687	0.0990
LEV	-0.0019	0.1752	-0.3777	0.0088
LOSS	-0.0222	0.0368	-0.3656	0.0000
d(SALES)	-0.0791	0.0037	0.7030	0.0000
d(CFO)	-0.6168	0.0039	0.3566	0.0000
Obs.	18,928			
Prob > F	0.000			
R <sup>2</sup>	0.337			
Adjusted R <sup>2</sup>	0.671			

**Notes:** Reported significance levels (\*, \*\* and \*\*\*for 0.10, 0.05 and 0.01 levels, respectively) Please see [Table I](#) for variables definitions

Table VI.

profitability. Hotels having high amounts of assets generally exploit economies of scale, control a huge percentage of the market and improve profits sharing fixed costs over a larger quantity of services. The regression analysis shows a positive and significant (at the level of 1 per cent) impact of SIZE on dependent variable OCCR and GOPPAR, meaning that in Italy larger hotels experience higher occupancy rate and gross operating profit than smaller ones mainly as a consequence of economies of scale in transactions and some operational advantages. It can be deduced that larger hotels are able to provide higher degree of services and to diversify loans causing a reduction of risk. The correlation between SIZE and hotel profitability also confirms that large hotel firms have enough income to offset their expenses. Large hotels provide a range of services and leisure activities (i.e. accommodation, food and beverages, swimming pool, conference facilities, laundry, etc.) that tourists demand, enjoying high occupancy and hence sales revenue. The profitable operations of large hotels can be ascribed to a well brand image, a sounder reputation, an efficient reservation system, internet marketing, economy of scale and internationalization ([Ben Aissa and Goaid, 2014](#)).

For hypotheses testing, results document that the relationship between management education and profitability is not statistically significant in all the models. Thus, *H3* is not supported by empirical findings for ROE (Model 1), ROA (Model 2), OCCR (Model 3) and GOPPAR (Model 4). In our analysis, ownership structure has a significant and negative impact on hotel profitability supporting *H4*. As anticipated, the regression coefficients for FAM and SHARE are negative and statistically significant for ROE, ROA and OCCR ( $p < 0.05$ ). Finally, coefficients of control variables are statistically significant ( $p < 0.01$ ). LOSS, d(SALES) and d(CFO) negatively influence profitability. In addition, the coefficient of LEV is negatively associated with ROE, ROA and OCCR, but the relationship is not statistically significant across models. The regression results are graphically illustrated in Figure 1.

### 5. Conclusions

The purpose of this study is to explore the relationship between profitability and its determinants in the Italian hospitality industry. The research aims to demonstrate whether factors, such as macroeconomic conditions (financial crisis), business model (size, accommodation as first activity, location, internationalization and chain integration), ownership structure and management education influence the performance of hotel firms in Italy. Using a panel data set of 2,366 hotels for the 2008-2016 period, I assessed a regression for ROE, ROA, OCCR and GOPPAR on a number of variables often applied in hospitality literature. The results suggest that internationalization, accommodation as first activity, chain affiliation and location influence hotel profitability positively. I also found that larger hotels achieve higher profitability, while hotels with greater sales volatility, higher cash flow volatility and a superior occurrence of losses show lower profitability.

#### 5.1 Theoretical implications

Considering prior contributions in literature and comparing them with the collected data and regression findings, our study leads to four main conclusions. First, findings suggest that hotel

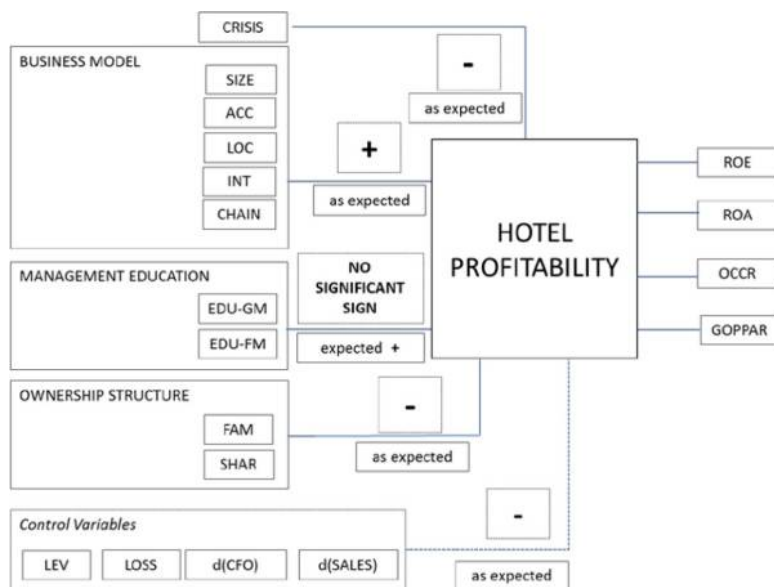


Figure 1.  
Regression results

performance is closely associated with the state of economy and especially with financial turmoil. Economic development is highly related to tourism expansion. This supports the results in [Kim et al. \(2006\)](#), who verified a long-term relationship between economic conditions and tourism growth and a bi-directional causation between tourism expansion and economic development as they can promote each other. Second, our results confirm that ownership structure and ownership concentration affects profitability. Company-owned hotels and family hotels attain lower profitability than public companies because of different know-how in making strategies concerning market segment, operation, brand, international chain affiliation, management efficiency, skills and contracting as critical factors to hotel revenues and profits. Third, managers' high education level does not influence profitability although several studies confirmed that qualified managers with degree can help to boost hotel efficiency and organizational performance ([Kim and Oh, 2004](#); [Wang and Shyu, 2008](#)). The complexity of tourism industry implies the competence of human capital and the hiring of well-instructed employees to cope with changes on demands and supplies aptly. However, the evidence reveals an insignificant influence of managers' high education on hotel profitability. Fourth, hotel firms associated to an international chain, operating under a franchising contract and situated in coastal and/or scenic locations are more profitable than others. The location where a hotel operates is a key competitive factor in hospitality industry as I verified that hotel firms located in coastal and/or scenic districts of Italy are better equipped to satisfy tourists through more tourism activities and facilities. In Italy, coastal and/or scenic areas benefit from more public and private investments, region notoriety and destination promotion assured by public authorities. Moreover, the findings suggest that targeting international customers is the better approach than completely depending upon a domestic market in enhancing hotel's performance. Profitability is also influenced by the international attraction of the location as international visitors stay longer than local clientele and should take advantage from an added purchasing power due to the exchange rate. Regarding international tourism attractiveness, a hotel appealing to international markets can interest greater spending international tourists, boosting profitability and financial returns.

### *5.2 Practical implications*

The results offer new evidence on the Italian hospitality context and remark the importance of examining several firm specific factors to measure the profitability of a hotel firm. Few empirical studies inspected the performance in European and Italian hospitality industry so far and no study in such a context investigated the influence of the crisis, business model, education level of board staff and ownership structure on hotel profitability. Therefore, our research attempts to fill an important gap that remains an open question in the existing literature as prior studies used few variables (i.e. hotel dimension, stars-rating and added service provided) to look for a relationship with performance ([Bresciani et al., 2015](#); [Santoro, 2015](#)) or they focused on the evolution of economic efficiency in the Italian hospitality sector ([Brida et al., 2012](#); [Brida et al., 2015](#)). Our paper makes some contributions to the tourism research. First, the study adds to prior literature and it offers significant insights on the characteristics and practices of hotel firms in Italy. Second, empirical results provide valuable information for hotel investors, hotel owners, hotel managers, tourism playmakers and government. There are a limited number of studies that have analyzed the variation of hotel profitability in Europe and moreover acquired results are ambiguous. Second, the analysis proposes a new viewpoint in the profitability field studying a sample of Italian hotel firms to test the influence of economic conditions and internal determinants on hotel profitability. To this purpose, I developed a multidimensional concept of profitability by means of four indicators: ROE, ROA, OCCR and GOPPAR.

### 5.3 Limitations and future research

The major limitation of the research is data availability for a few of independent variables, i.e. ownership structure and management education. The inclusion of these variables into the regression model decreased the observations as many hotels do not give information about their ownership structure and do not operate under managers. Hence, the findings should be regarded as preliminary. Directions for future research on the hospitality industry in Italy should introduce an extended sample in the time dimension, but also further variables and different mixtures of them, especially including marketing expenditure and a proxy for innovative activity. To increase their profitability, hotel firms should guarantee high operational performance of the services offered (accommodation, services, restaurant, bar, conference rooms, business facilities, etc.), as assuring the standard of quality required by customers has become a primary concern for corporate hotel performance. Quality is a crucial cultural factor permeating hotel management approach to operations, and in this regard, theoretical findings could outline some extra strategic considerations. During the past two decades, the hospitality industry has experienced global major transformations in its operating context as consumers' attitudes, expectations, demands and evaluation processes changed incessantly and increasingly reinforced the need of flexible and "reflexive" strategies (Thrassou and Vrontis, 2009). Future research should also consider intangible determinants of hotel profitability concentrating on concepts such as "quality", "value" and "satisfaction", with the aim to understand them from the perspective of both guests and hotels. Looking at the hotel organization through the eyes of the customer, hotel performance is driven by the creation of innovative value through the building of appropriate quality for the provided services and facilities, brand image, customer loyalty, competitive positioning and everything else generating the insights that finally shape the customers' valuations. From a managerial perspective, it seems crucial to offer quality services and give particular attention to the customer satisfaction by implementing a total quality management. Hence, a market-oriented approach can support hotel organization to provide a service mix that clientele perceives as high-quality services. From the perspective of competitiveness, hotel management should appreciate the idea of an international chain affiliation to convey numerous advantages, i. e. greater commercialization capacity and opportunity to assure a wider variety of services and provide higher service quality. Finally, at the policy levels, it is essential to encourage educational awareness in tourism and also preserve the location's attractiveness of hotels supporting constant investment for amenities and for a tourist local development process.

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