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Determinants of Tunisian hotel profitability: The role of managerial efficiency

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HIGHLIGHTS

- Management efficiency is determinant for hotel profitability.
- Hotel profitability depends on hotel size, indebtedness, location, crises and international attraction of the destination.
- Hotels affiliated to an international chain, hotels operating under management contract and hotels avoiding the All-Inclusive system are more profitable.
- Hotels profitability depends on managers' education level.
- There is an optimal age for hotels and an optimal tenure period for top management that hotels can reach higher profitability.

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ABSTRACT

Using financial data derived from 27 hotel companies operating in Tunisia, the paper reports an analysis of hotel profitability. Using Data Envelopment Analysis (DEA) and the Return On Assets (ROA) analysis managerial efficiency is shown to be important when holding geographical and operating contracts as constants. Nonetheless these two aspects have important implications for hotel profitability. Hotel size, level of indebtedness, exposure to crisis events and levels of managers' education are also influential. The implications for management tenure and optimal age of a hotel are discussed.

1. Introduction

During the last two decades, hotels in Tunisia have experienced major challenges in their operating environment. Despite the large investment in hospitality services in Tunisia, hotel performance indicators have continued to decline, and have not shown any sign of recovery over the last ten years. Despite the increasing number of tourist arrivals in Tunisia, some hotels still suffer from a deficiency of profitability and therefore an inability to pay back debts. Out of 548 classified hotel facilities, 333 facilities are listed at the information center as being in debt to banking institutions. According to the 'National Commission for Enterprises in Difficulty', for the year 2010, over 50% of companies are from the tourism sector (African Development Bank, 2012). Despite governmental interventions aimed at limiting the frequency with which these Nonperforming Loans are granted, several companies still filed for bankruptcy, while other companies used the strategy of leasing the management of their hotels to foreign companies. Consequently, hotel investors and managers have to improve their profitability. Attractive and well-managed hotels are essential to sustained tourism activity and economic growth in Tunisia. Since Tunisian independence, the economic growth of the country has been dependent upon the tourism sector, with the hotel industry being regarded as one of the first development and employment opportunities.

The purpose of this paper is to highlight the importance of operational efficiency on hotel profitability that is considered a major target for investors. This study seeks to be instrumental in identifying the determinants of successful Tunisian hotels and

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thereafter to formulate policies for improved profitability and address the pressing challenges in these areas. Accordingly, we will investigate to what extent hotel profitability differentials could be attributed to variation in endogenous factors considered under the control of hotel management, or to external factors that are under the control of tourism decision makers. This paper also aims at shedding light on some controversial results in the literature regarding hotel profitability, specifically as it relates to hotel size, hotel age and management tenure. This, to our knowledge, is one of the first studies aimed at measuring efficiency scores and considers the association between productive efficiency and financial hotel performance in the tourism industry in Tunisia.

This paper is organized as follows: Section 2 reviews the literature on the determinants of hotel profitability. Section 3 presents the data and Panel data methodology. Section 4 reports and discusses empirical results. Section 5 concludes by providing some policy implications.

2. Literature review

2.1. Management efficiency and hotel profitability

While research literature investigates the efficiency of the tourism industry using non-parametric data envelopment analysis, little attention has been dedicated to the relation between efficiency and profitability. Moreover, the financial indicators should be considered as ultimate indicators of performance. These indicators are determined or related to an "operational" indicator measuring directly the efficiency in the use of specific resources (Fernandez, 2000). In fact, the impact of efficiency on the profitability has been already tested for the banking sector by Olson and Zoubi (2011) and Guillén, Rengifo, and Ozsoz (2014).

2.2. Hotel size and profitability

There is a growing body of literature investigating the relationship between hotel size and hotel financial performance leading to different findings. Many researchers such as Barros and Mascarenhas (2005), Chen and Tseng (2005), Israeli (2002) and Claver-Cortés, Molina-Azorín, and Pereira-Moliner (2007) have presented evidence on the positive relation between hotel size and hotel performance. This positive relation is confirmed by Kim, Cho, and Robert (2013) for occupancy rate and Gross Operating Result (GOP) and by Pine and Phillips (2005) for the RevPAR (revenue per available room).

However, other studies revealed negative relationship between hotel size and productivity empirically rejecting the Hotel size-Led Profit. The PricewaterhouseCoopers (PWC) Hospitality Directions, cited by Withiam (2000), confirmed the negative impact of hotel size on the hotel profitability for some specific type of hotel such as resort or airport hotels among a panel of 2616 hotels.

2.3. Hotel age and profitability

Several performance studies in the hospitality literature have examined the relationship between the "years in business" and hotel performance. Wang et al., (2006a), Wang, Shang, Hung (2006b) and Assaf and Cvelbar (2011) suggested that hotel performance increases with facilities age. In fact, they argue that hotels gain on organizational resources, such as experience, reputation and local or international brand. All these resources could positively influence strategic, operational as well as innovation decisions. However, other studies, such as Baum and Mezias (1992), have revealed a negative impact of hotel age on the hotel performance resulting mainly from the fact that hotel age increases potential failures. Hotels with fewer years in business implement new technologies and new amenities capable of attracting consumers with higher purchasing power. Moreover, new facilities have better performance in terms of energy saving as well as water and waste management.

Since the findings are contradictory, it is assumed that the relationship is non-monotonic; the hotel age will be used in quadratic form in the profit function for the estimation of the optimal age with highest level of profitability.

2.4. Debt and profitability

Since the seminal papers of Modigliani and Miller (1958, 1963) several researchers have examined the impact of the indebtedness on the firm's performance but only few studies have investigated the hotel financing–profitability nexus. Barclay and Smith (2003) for instance, have emphasized the ability of large companies, compared to smaller ones, to afford high set costs of long-term debt. Large firms benefit from a lower bankruptcy risk thanks to the easiness of securing lower debt costs. In addition, Tang and Chang (2007) compared capital structure of companies from lodging and software industry. The findings indicate that fixed assets, growth opportunities, and the joint effect of these two variables are the significant long-term debt determinants of the lodging industry. Thus, they argued that the growing investment for lodging companies having higher amount of fixed properties such as lands and buildings should be of low cost despite the small risk linked to these investments. Unlike in Tunisia where hotel investment still rely on banking system, in U.S. during the last two decades, a considerable change on the capital structure and the financing of hotels has occurred resulting from diversification of financing mechanism as well as market's condition (Elgonemy, 2000). Thereby, this paper aims at examining the impact of indebtedness on the hotel profitability in Tunisia.

2.5. International chain affiliation and hotel profitability

Various studies have been carried out comparison of hotel performance from several tourist destinations in order to analyze the impact of the association to an international chain on the performance. C.F. Chen (2007), M.H. Chen (2007), Chiang, Tsai, and Wang (2004), He (2003), Chang (2003), Chen (2002), Wang (2002), Chen and Huang (2001), Hwang and Chang (2000), Chen (2000, 2002) and Pien (2001) confirmed that hotels affiliated to international chains are more efficient than independent hotels.

2.6. Management contracting and hotel profitability

Different hotel alliances were formed through direct investment, merger or acquisition, franchising, renting and management contract in order to achieve faster expansion. Management contracting is an agreement between hotel investors or owners and a management company hired to coordinate and oversee the hotel activities and services. It spells out the conditions and duration of the agreement and the method of calculating management fees.

Several papers investigated the impact of international affiliation on the hotel performance (Chang, 2003; Chen, 2000, 2002; Chen & Huang, 2001; Chiang et al., 2004; He, 2003; Hwang & Chang, 2000; Pien, 2001; Wang, 2002) and recommended that the owners of independent hotels who want to join hotel chains should adopt management contracting. By comparing the franchising contract and the management contract for international tourist hotels, Hsieh and Lin (2010) concluded that franchises and independently owned hotels perform better in areas of accommodation and catering. However, management contracts are