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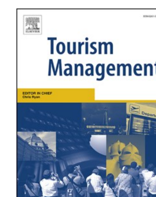

Management fees and hotel performance in the U.S.

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ABSTRACT

A management company takes care of the day-to-day operations of a hotel and thus has a great amount of influence on the hotel's financial performance. Adopting models from O'Neill, Hanson, and Matilla (2008) and Hua, Morosan, and DeFranco (2015), a set of empirical models, with same-store data from 1471 hotels from 2011 through 2017, was used to test the impact of the total management fee and its subset of the base management fee and the incentive management fee on the hotels' rooms revenue and gross operating profit while controlling for potential confounding factors including chain scale and location.

This is the first paper to empirically validate the value of a management contract for both the owners and the management company, including the positive and significant effects that base management and incentive management fees have on hotels' room revenue and gross operating profit.

1. Introduction

In the 1960s, when motor-inns, motor hotels, and the motels segment of the hotel industry went through a rapid expansion, one means to ensure that all the new properties were operated properly with set standards, and that developers and owners could be a major part of this expansion, was via management contracts. Simply, a management contract is an operating agreement signed between a management company and an owner and/or developer where the management company operates the property for an agreed fee. In 1970, only 22 management companies existed among the 10 major U.S. brand operating companies (Eyster & deRoos, 2009). By the end of 2017, there were 40 management companies in the U.S. managing 8000 rooms or more, and 76 management companies worldwide managing 10,000 rooms or more (STR, 2018a). Because of the increase in demand for hotels, motels and other lodging over the last few decades, many hoteliers wanted to expand their market presence. Management companies through management contracts, therefore, became an important vehicle to fuel this rapid expansion and development.

1.1. Legal framework of the management company and management contracts

A management company's obligation is to operate a hotel on behalf of the hotel owner, via a management contract where the management company receives a fee for its services, often as a percentage of revenue and/or some portion of profits. While some management companies manage only one hotel brand, many management companies manage multiple chains in addition to independent hotels. Regardless of the number of hotels being managed, one important element is the terms in the management contracts.

The management contract, also referred to as an operating agreement, states the area of responsibilities of the owner of the hotel and the management company selected by the owner to operate the hotel. In other words, the owner employs the management company as an agent to assume full responsibility for operating the property and to do so in a professional manner. As an agent, the management company pays, on behalf of the owner, all operating expenses from the cash flow generated by the property, retains a management fee, and passes the remaining cash flow on to the owner. The owner provides the hotel, including any land, building, fixtures, equipment, and working capital, and assumes all legal and financial responsibility for these items (Eyster, 1990). Thus, the contract is created when the owner of a hospitality facility allows another entity to assume the day-to-day operation of the facility. In the 1960s, this relationship was rather simple and was generally managed with only one controlling document. Today, this relationship is much more complicated. The management contract usually consists of a minimum of eight or more concurrent agreements governing such things as real property rights, intellectual property rights, hotels as financial assets, and hotels as operating businesses, as well as the needs of owners,

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operators, and lenders (deRoos, 2010). In contrast, the owner-operator relationship is still quite simple. In this type of operating structure, the owners of the business are directly responsible for the day-to-day operations. This relationship is often referred to as an "independent" relationship.

1.2. Management company in the U.S. and global

According to STR (2018a), the top-five management companies in the U.S., with 8000 rooms or more and excluding chain-managed properties, as classified by rooms managed at the end of 2017, were MGM Resorts, Caesars Entertainment, Aimbridge Hospitality, Interstate Hotels, and Crossroads Hospitality, Inc., which together represented over 180,000 rooms. With chains included, Extended Stay Hotels and Marriott replaced the first two spots, with MGM, Caesars, and Aimbridge rounding the top five spots for a portfolio of over 246,000 rooms. When global numbers are added, for management companies with a portfolio of 10,000 rooms or more, and chains included, Marriott Management achieved the most, with over 250,000 rooms. Adding to that Jinjiang Inn Co., Ltd., InterContinental Hotels, Hilton Managed and Carlson Rezidor Hotel Group, together these top-five global management companies were in charge of nearly 715,000 rooms across 3200 properties (STR, 2018a).

Of course, all this managing work comes with a fee. According to the Uniform System of Accounts for the Lodging Industry (American Hotel & Lodging Educational Institute, 2014), in the representation of the Summary Operating Statement, right after Gross Operating Profit, is a line item for Management Fees. This represents the cost of management services provided by the management company to operate the hotel on behalf of the owners. This fee is subdivided into base management fee and incentive fee. The base management fee is normally an agreed fixed amount or a percentage of revenues or percentage of profit, whereas the incentive fee is dependent on achieving certain pre-defined profit levels. The entire management fee is not a small amount (American Hotel & Lodging Educational Institute, 2014). In the early years when management contract was used, it was as high as 5% of gross revenue and 10% of operating profit for international management contracts. In addition, the terms were much longer with some agreements written for as many as sixty years. As the number of management companies increases over the years, so is the competition. Owners have also become more astute in management contract negotiations. Thus, the more common contracts now are in the range of 2% gross revenue and 8% of gross or adjusted gross operating profit (Evanoff, 2016).

1.3. Need for the study

As mentioned, management companies enabled the expansion and development of the hotel industry, especially the motel segment, in the 1960s. They continue to offer many owners who may not have the time or the expertise to manage a hotel the opportunity to become a part of the hotel business. With the proliferation of hotel management companies and management contracts, and the new player in the hotel industry known as hotel "asset" management companies who, besides representing the ownership to work with management companies may also act as management companies themselves, it is important to assess whether the concept of management companies add value to hotels.

While evaluating whether such activities add value may seem difficult, the management fee can be seen as a surrogate, and therefore measure, of the value added by the management company's efforts, which can be objectively analyzed. Although several meritorious efforts are notable in their attempts to examine the relationships between certain functional area expenses and performance (e.g., marketing in O'Neill et al., 2008; CRM in Josiassen, Assaf, & Knezevic Cvelbar, 2014; e-commerce in Hua et al., 2015; loyalty programs in Hua, Wei, DeFranco, & Wang, 2018), no study has examined the impact of management companies' activities on hotel financial performance, specifically in terms of top-line revenue and gross operating profits (GOP). Revenue and GOP were selected for this study rather than other metrics because these two line items are not affected by management fees in the accounting calculation. For example, if net operating income (NOI) is used, the magnitude of the management fee are subtracted to derive NOI. Thus, it may not be clear that the relationship between management fees and NOI is attributed to the research hypotheses to be tested or to accounting calculations. The same rationale applies to any metrics that will include net income such as return on investment, equity, or even assets.

Therefore, an understanding of the effectiveness of the management company at the property level in terms of financial performance (as measured by revenue and GOP) would allow owners to determine whether it is to their advantage to employ a management company. The unit of study is the property level rather than the corporation level, as management companies can sign contracts with independent hotels, small owners or corporations with a few properties in their portfolios.

1.4. Purpose of the study

Filling this critical void, this study examines the relationship between management fees and financial performance in the hotel industry. To this end, it follows two objectives: (1) to examine the influence of total management fees, base management fees, and incentive fees on hotel financial performance as measured by room revenue; and (2) to examine the influence of total management fees, base management fees, and incentive fees on hotel financial performance as measured by GOP. In addition, this study aims to establish robustness of examining the influence of total management fees, base management fees, and incentive fees on hotel financial performance by controlling for potential confounding factors suggested by prior research, including chain scale and location.

2. Literature review

2.1. Evolution/history of management contract

deRoos (2010) traced the development of management contracts in the hotel industry as early as the 1950s, when large U.S.-based hotel operators such as Hilton and Sheraton expanded internationally. Owners and developers wanted to be part of the hotel business expanding overseas but lacked manpower and expertise. Then came the management company who, for an agreed fee, would operate the hotel for the owner. This was a win-win arrangement. There was also the potential for generating income and cash flows without owners investing time to learn about the operations of the hotel business. The management company, on the other hand, also benefitted from this arrangement by not having to investing its own resources while earning fee income from the owners and expanding the reach of its brand. These early contracts were more in favor of the operators, with long durations and high termination barriers (deRoos, 2010). Thus, although it was a win-win, the management companies had the more sizable return. As Eyster (1993) stated, contracts during this initial period gave more freedom to the operators, with the owners taking a more passive role.

By the 1980s, however, the power was shifting to the owners. In the U.S., it was not only the owners and the operators, but also the lenders who became an important part of the hotel industry. Of the many major areas of management contract terms, such as performance termination clauses; the owner's rights to approve furniture, fixture, and equipment (FF&E) replacement; capital expenditure budgets; the owner's right to have input on personnel decisions; the owner's right to terminate at will, upon sale, or upon foreclosure; and restrictions on blanket indemnification of the operator, to name a few, the management fee structure is transparent as to how the management company would be rewarded for its performance (Eyster, 1990, 1993, 1997). Due to the economic downturn and poor lending practices in the hotel industry that occurred

in the 1980s, incentive fee structures were based on achieving certain levels of cash flow or certain levels of profitability, such as the GOP (deRoos, 2010). During this period, hotel asset management companies also became more prominent due to the financial distress issues of the industry and the increasing demand from real estate investors for more accountability (Pekala, 1990). Asset management companies, once agents of the hotel owners, became advisors to the owners in negotiating contracts with the management companies that were better both for the owners and their hotel portfolios. Some asset management companies also took on the role of the management company for the owners (Singh, Kline, Ma, & Beals, 2012). Thus, the balance of power was tipped back to the owners.

However, this did not last long, as contracts grew much more complicated in the 1990s. Both the owners and operators had become more experienced with contract negotiations and the terms of a contract. Beals and Denton (2005) cited six management contract provisions that were critical. Fees and fee structures were one of the top six negotiated provisions. Owners wanted more transparency and risk sharing, while management companies wanted fair compensation for their work. Indeed, managing a 500-room hotel in the year 2000 was very different from managing a 50-room motel along a major highway in the 1960s. With services like centralized marketing, group sales, loyalty programs, accounting fees, software licensing support fees, network fees, management information services licensing and support fees, and others such as employee training, brand standard, and internal audits, the management fee just did not cover all. These fees easily added up to 3%–5% of total revenues (Beals & Denton, 2005). Thus, the true intent and amount of management fees had to be redefined, especially when the turn of the century witnessed a change of business models used in several North American lodging companies, such as Marriott, Hilton, and Starwood (which later merged with Marriott), who have become asset-light, and slowly moved from owned properties to fee-based income (Beals & Denton, 2005).

2.2. The makings of a management contract

According to Eyster and deRoos (2009), management fees are normally subdivided into four categories: technical-assistance fees, pre-opening management fees, post-opening management fees, and system-reimbursable expenses. More specifically, Eyster and deRoos (2009) stressed that the main concerns owners have about management fees center around: (1) the specific services received for the fees, (2) the proportion of the base fee representing the operator's cost and profit, and (3) the fee-structure combination that would best incentivize the operator to perform the best.

Fees in a management contract indeed varied based on many factors and the negotiation process. For instance, base fees were normally a straightforward percentage of gross revenues, yet some contracts defined gross revenues strictly to exclude revenues such as parking that were not the result of the operator's efforts (deRoos, 2010). Some operators opted for contracts that had no base fee but provided for incentive fees that would be sure to generate a reasonable fee stream over the term of the contract. Unlike the base fee, incentive fee structures were more complex and varied widely. Essentially, incentive fees shifted the financial risk from the owners to a risk-sharing agreement with the operator. Incentive fees were normally tied to GOP, ensuring that operators were watching the operating expenses of the property.

The amount of fees charged also depended on the property type, whether it was a full-service or select-service property, and also depended on the operator type, whether brand, independent, or caretaker. On average, the base fee for a brand operator-managed, full-service hotel was 3.25%, while for a select-service hotel it was 5.0%. In terms of independent operators, the median base fee for full-service hotels was 4.0%, and for select-service hotels it was 2.75%. The median caretaker operator rate for full-service hotels was 3.25%. This base fee could be as high at 7.0% or as low as 1.5% (Eyster & deRoos, 2009). As for incentive fees, those depended on whether they were tied to income before fixed charges, cash flow after debt service, or cash flow after owners' priority returns. The incentive fee could be anywhere from 5% to 30% (Eyster & deRoos, 2009). More importantly, how gross operating profit is calculated, or the specific line items and expenses that are to be deducted to derive gross operating profit, may vary from one company to another or even one contract to another. In addition, how such fee percentages will step up or increase over time (especially when a new hotel may take a few years for income to stabilize), and whether fee deferrals are applicable, are all up for negotiations (Evanoff, 2016). Again, negotiation is always the key.

Equally important as the fee is the term of the contract. If a fee is not favorable for one party and the contract is a long-term one, then this contract will not be an equitable one to serve the interests of both parties. As mentioned previously, in the early days of the model of management contract, some international contracts were written for twenty or even thirty years with the owners having the option to extend them for up to three successive 10-year terms. Now, a standard agreement is more in the range of twenty to twenty-five years (Evanoff, 2016). A recent study by HVS (Perret, Martin, & Balyozyan, April 24, 2017) of management contracts in Europe confirmed this trend I that the average length of the initial term was reported at 21 years but with more renewal options. This was largely due to the increase competition of all the management companies as operators and also risks in hotels in emerging markets that both operators and owners will be able to exit the market if the economic conditions are not favorable. However, it is also reported that luxury operators such as Four Seasons and Ritz-Carlton many want longer initial terms, ranging from 30 to 50 years (Perret, Martin, & Balyozyan, 2017).

deRoos (2016) also shares four updated major trends in hotel management structure. First, due to the recent recession in 2008, owners would terminate agreements if they believe such agreements are not in their best interest, regardless of whether such rights are stipulated in the contract. It also appear that courts are also siding with the owners as seen in Marriott International v. Eden Roc (deRoos, 2016). In addition, the terms are also shorter, with those in the United States averaging only at 15.6 years for the initial term. Third, key money, or the up-front rebate by management company to the owners, is found only in a few agreements. And, such management companies use key money to negotiate for a better contract for themselves. Finally, franchising is added in the management mix where owners will have both a franchise brand and will pay the a royalty fee rather than a management fee and in return, the property will be managed as a franchise with all the standards and brand services (deRoos, 2016).

2.3. Is the management fee justified? The agency theory as theoretical background

Many studies have investigated the pros and cons of management contracts, and even compared management contract to franchising; however, the literature is scant regarding how management fees contribute to a hotel's revenue or GOP. To fully examine the impact the management contract (and management fees) has on revenue in the lodging industry, this study employs agency theory.

Agency theory focuses on the agent. As management companies are agents or representatives of the owners, they should execute their duties and add value (in terms of revenues and GOP) to lodging properties. Chen and Dimou (2005) stated that agency theory had its place in international hotel expansion using both franchising and management contracts. These two modes of operation and management, franchising and management contracts, relied on agency theory. Franchising and management contracts as modes of operation accounted for the majority of international hotel operations (Contractor & Kundu, 1998). A management contract allowed local partners to be in the lodging business without having to make the investment in real estate, and international hotel companies could expand without having the tacit knowledge of the

culture and management, making for a win-win arrangement.

However, this delegation of decision-making authority from the principal (owner) to the agent (management company) often caused conflicts (Cassidy & Guilding, 2011). A number of studies documented such conflicts when the goal of the management company or the operator, which was to maximize the value of the brand or management company, was not the same as that of the property owners, whose goal is the profitability of their hotels (Beals & Denton, 2005; Eyster & de; Melissen, van Ginneken, & Wood, 2016; Parkinson, 2006; Roos, 2009). This was especially true with regard to investments or capital expenditures (Turner & Guilding, 2010) that might not generate profits in the short term (e.g., sustainability initiatives (Melissen et al., 2016). This issue, called the "horizon problem" (Dechow, 1991), was not dissimilar from a CEO wanting to cut all costs to improve short-term earnings, when he or she is about to exit the company, rather than spending resources on R&D. In Beals' study (Beals, 1995), when discussing the horizon problem, he stated that owners normally preferred the short-termist approach to investment, yet Guilding in his 2003 study found the opposite from the interviews gathered, that it was the operators who preferred the short-termist approach. One reason was that if no investment in capital expenditures were made in the short-term, then there would be less training costs, less promotion of investment expenditures, and thus higher short-term returns. However, Guilding (2003) provided more insight that each situation should be viewed within its own context, and if either party is considering a non-renewal and the contract term was about to end, then this "goal-misalignment" would cause this horizon issue.

In addition to the time horizon conflicts, Guilding (2003) also pointed out other possible agency conflicts such as principals and agents might not share the same level or risk taking, especially when the agent's risk is limited compared to that of the principal. Second, some agents might deliberately divert resources to increase revenues but in return, might reduce the bottom-line, especially if a contract is written with a compensation to the agent with a higher percentage going to sales.

In the past, parties to a hotel management contract believed that the contract governed the actions of all parties, and that conflicts would be resolved according to the terms of the written agreement (Wilson, 2001). However, in the 1990s, the courts reshaped this relationship. With respect to the agency relationship versus the hotel management contract relationship, the court held that agency law would govern the hotel management relationship, in other words that agency law would control the relationship between the principal (owner) and the agent (management company), over and above the terms of the written management agreement. In each of these cases, the court determined that a principal and agent relationship existed between the owner of the hotel and the management company. In holding that a principal-agent relationship existed, the courts firmly established that agency law would apply to disputes between hotel owners and management companies, rather than the management contract (Woolley v. Embassy Suites, 1991).

Agency law created duties and obligations that the agent (Management Company) owed to the principal (hotel owner) that went beyond the scope of the terms and conditions set forth in the written management contract. Some of the duties and obligations imposed by agency law include a fiduciary duty of the agent to act in the best interests of the principal (owner) at all times, the agent's duty of service and obedience to the principal, the agent's duty to keep and render accounts regarding spending and budgets, the agent's duty to obey the requests of the owner, the agent's duty of loyalty, the agent's duty to provide information, the agent's duty not to compete, the agent's duty not to act for someone else with a competing interest, and the agent's duty not to use or disclose confidential information (Renard & Motley, 2003; Wilson, 2001). The agency-principal relationship and its host of duties as defined by law favored the owners. Notwithstanding the line of cases finding an agency relationship exists between the hotel management company and the hotel owner, hotel management companies have consistently tried to insert language disclaiming their fiduciary duties in the management contracts. Hotel management companies have also tried to lobby for legislative protection. The management companies have found some success in this arena. For example, Maryland passed a statute that expressly states. "if a conflict exists between the express terms and conditions of an operating agreement and the terms and conditions implied by the law governing the relationship between a principle and agent, the express terms and conditions of the operating agreement shall govern." Md. Code Ann. Com. Law III Sec. 23-102(a). Further it states that for the purposes of Maryland law an operating agreement is defined as a "written contract, agreement, instrument, or other document between at least two persons that relates to the management, operation, or franchise of a hotel …" Md. Code Ann. Com. Law III Sec. 23-101(c). And, the statute adds even more protection by stating that "operating agreements are enforceable for the term set forth in the agreement unless the agreement contains a right of early termination." Md. Code Ann. Com. Law III Sec. 23-104. While the Maryland statute, which is referred to as the Maryland exception is a departure from previous court decisions, it applies only to hotel management agreements that are subject to the Maryland's jurisdiction (deRoos & Wiseheart, March 19, 2016; Bosch and Cavanaugh (2016). And, while it is true that some hotel management companies may try to compel a hotel owner to agreeing to use Maryland as the legal venue for any disputes by including it in their standardized contracts, this is an area subject to negotiation (deRoos & Wiseheart, March 19, 2016; Bosch and Cavanaugh (2016). Owners would be wise not to include Maryland as the legal jurisdiction for resolving disputes arising from the management agreement. The fact that the Maryland exception has not been litigated and there is some doubt as to its constitutionality (deRoos & Wiseheart, March 19, 2016) should give owners some relief. Thus, it seems that at least for the moment agency law is the prevailing foundation for hotel management agreements, and as such the owners have the ability to terminate the management agreement at will (deRoos & Wiseheart, March 19, 2016).

2.4. Hypotheses development

With the current fees and term structure of a management contract seem to be more favorable from the owner's perspective, the following are hypothesized:

H1. Management fees exert a positive impact on rooms revenue, ceteris paribus.

H1a. Base management fees exert a positive impact on rooms revenue, ceteris paribus.

H1b. Incentive management fees exert a positive impact on rooms revenue, ceteris paribus.

H2. Management fees exert a positive impact on GOP, ceteris paribus.

H2a. Base management fees exert a positive impact on GOP, ceteris paribus.

H2b. : Incentive management fees exert a positive impact on GOP, ceteris paribus.

2.5. Contextual factors

To isolate and measure the effect of management fee on room revenue, the following contextual factors should be considered: (1) size of the hotel (measured by number of rooms), (2) franchise royalty, (3) total franchise expense, (4) marketing advertising, (5) marketing training, (6) marketing promotion and public relations, (7) marketing website, and (8) other marketing expense such as loyalty programs.

In studying the effects of e-commerce expense on hotel financial performance, DeFranco, Morosan, and Hua (2017) confirmed that the size of a hotel (as measured by the number of rooms) is a strong predictor of room revenue. The team studied the financial performance of

689 observations of over 110 U.S. hotels from 2007 to 2012, and found that the size of the hotel moderated the impact e-commerce expenses had on the hotel's financial performance. The results indicated that smaller hotels or received a greater benefit from higher e-commerce spending. Yet, with the low magnitude of the regression coefficient of the interaction term between e-commerce and hotel size, the influence of e-commerce outpaced that of hotel size and reinforced that e-commerce expenses could indeed increase hotel financial performance.

Franchising and management contracts are two avenues by which hotels can expand. A hotel can be a franchised property and at the same time be managed by a management company. As such, franchise royalty and the total franchise expense, especially when associated with a brand, should all contribute to a hotel's room revenue. With data from 2002 through 2008 for more than 51,000 hotels in the U.S., O'Neill and Carlback (2011) found that branded hotels operated with significantly higher occupancy rates than independent hotels did, but independent hotels operated with a significantly higher average daily rate (ADR) and room revenue per available room (RevPAR). Of particular importance was that while a significant difference in net operating income (NOI) between branded and independent hotels was not found during years of economic expansion, branded hotels had a significantly higher NOI during the years of economic recession. This made franchising a safety net for owners. When studying the franchisor-franchisee-customer triad, and also applying agency theory, Zhang, Lawrence, and Anderson (2015) concluded that franchisees used their affiliation brand to attract customers. The franchisees paid the franchisor royalties and retained residual profits. They also charged higher room prices, though they achieved a similar financial performance in terms of RevPAR.

Similarly, all marketing expenses, from marketing advertising, marketing training, promotion and public relations (Repetti, 2013; Singh & Dev, 2014) to website marketing (Hua et al., 2015) and other marketing expenses, such as loyalty programs (Hua et al., 2018; Lee, Capella, Taylor, Luo, & Gabler, 2014), should help attract more business to a hotel. Repetti (2013) analyzed 465 quarterly data points from casino hotels in Atlantic City from 2002 to 2012 and concluded that, for every dollar increase in promotional allowances, the gross revenues of the casinos increased \$4.53 and net revenues increased \$3.53. Singh and Dev (2014) studied the financial ratios of 206 hotels in the U.S. during the 2009 recession, classifying them as winners or losers, and found that winner hotel companies spent an average of \$11.50 per room on total marketing expenditures as compared to the loser hotel companies, which spent an average of \$6.10 per room. In times of recession, the losers reduced their sales expenses, while the winners increased them. Hua et al. (2015) examined the e-commerce expense of 275 hotels from 2007 through 2012, and concluded that e-commerce expenses significantly and positively impacted room revenue for all years except 2007, and that such expense significantly contributed to the GOP for midscale and upscale hotels but not so for the luxury, upper upscale, and the upper midscale categories.

Loyalty programs were also a key marketing expense hotels spent to increase revenues. Lee et al. (2014) examined the impact 31 customer loyalty programs had on the occupancy rate, revenue, and operating margin of 435 hotel properties, and concluded that investment in hotel loyalty programs had an overall modest positive impact on occupancy rates and profitability. Hua et al. (2018) took a slightly different route and used a sample of 2120 hotel properties from 2011 through 2013 to evaluate the impact of loyalty programs. They also found that loyalty program expenses had a significant positive impact on RevPAR, ADR, occupancy percentage, and GOP.

Additionally, the impact of chain scale and location has to be considered in the research model to control for their effect on financial performance, as chain scale and location affect a hotel's rates and occupancy. It was mentioned earlier that the management fee varied according to whether the hotel was a full-service or select-service one, and also depended on whether the property belonged to a brand or was independent (Eyster & deRoos, 2009; deRoos, 2010). In O'Neill et al.'s (2008) seminal work on how sales and marketing expenses affect a hotel's financial performance, the team also used chain scale, controlling for size, as a variable in their research model. Therefore, it is important to ascertain the effect of chain scale in this study. STR classifies hotels into six categories—luxury, upper upscale, upscale, upper midscale, midscale and economy—according to the average daily rates; and this classification changes every year (STR, 2018a). In February 2018, STR published the updated list. Examples of each chain scale are as follows: luxury chains—Bulgari, Conrad, Fairmont, and Four Seasons; upper upscale chains—Affinia, Embassy Suites, Hard Rock, Hilton, Marriott, Hyatt and Hyatt Regency; upscale chains—Citizen M, Marriott Courtyard, Disney, Hilton Garden Inn, and Hyatt Place; upper midscale chains—Best Western Plus, Hampton, Holiday Inn, and MOXY; midscale chains—Hawthorn Suites by Wyndham, Ibis, La Quinta Inns and Suites, and Tru by Hilton; and economy chains—Days Inn, Studio 6, Red Roof, and Super 8 (STR Chain Scales, 2018b).

As for the location of a hotel, the location of a hotel is so important that studies have been carried out to quantitatively justify establishing new hotels or closing old ones just by location (Lado-Sestayo, Otero-Gonzalez, Vivel-Bua, & Matorell-Cunill, 2016; Song & Ko, 2017). When studying more than 1900 hotels in the U.S., O'Neill and Mattila (2006) found that hotel location (e.g., urban or highway) influenced net operating income. STR classifies hotel locations of hotels into six categories. The airport category signifies a hotel that is close to an airport, while the interstate/motorway category is for hotels that are adjacent to major interstates, with easy access to motorway junctions. Then, urban hotels are those located in densely populated large cities such as New York or Houston, while suburban hotels are ones in the suburbs of a major metropolitan city (such as White Plains for New York). Another related counterpart is the small metro hotels, which are located in smaller population areas. The last category is resort hotels, located normally in a remote areas used for destination travel (STR, 2018a). Since CBRE collects and classifies data using STR's location and chain scale classifications, this study employs the same categorization.

3. Methodology

To investigate the impact of management fees on hotel operating performance, this study collected same-store data for 1471 hotels from 2011 through 2017. The data came from CBRE, one of the leading hospitality consulting firms in the U.S., and resulted in a total number of 11,768 observations. Specifically, the following data points were collected: total revenue, GOP, total management fees, management base fees, management incentive fees, number of guest rooms (rooms), website expenses, media/outdoor advertising (advertising), franchise royalty fees, total franchise expenses, loyalty programs and affiliation fees (loyalty programs), training expenses (training), promotion publication relations expenses, other marketing expenses (other), location (i.e., suburban, rural, resort, airport, highway, or city center), and hotel chain scale (i.e., luxury, upper upscale, upscale, upper midscale, or midscale).

Adopting O'Neill et al.'s (2008) and Hua et al.'s (2015) methodologies, this study employs the following empirical model to test the impact of management fees:

$$
\begin{aligned}
Total\ \mathrm{Revenue} = {} & \beta_0 + \beta_1 Total\ \ Management\ \ Fee_{In} + \beta_2 Rooms \\
& + \beta_3 Franchise\ \ Royalty + \beta_4 Loyalty\ \mathrm{P}rograms \\
& + \beta_5 Total\ \ Franchise\ \ Expenses + \beta_6 Adverti\sin g + \beta_7 Training \\
& + \beta_8 Website\ \ + \beta_9 \mathrm{P}romotion\ \ Public\ \ \mathrm{R}elations \\
& + \beta_{10} Other\ \ Marketing\ \ Expenses + \varepsilon
\end{aligned} \tag{1}
$$

An instrumental variable is employed to account for potential simultaneity issues between total management fees and total revenue, as established by Canina and Carvell (2005) and Hua, O'Neill, Nusair, Singh, and DeFranco (2017). Accordingly, management fees from year

t-1 (named Total Management Fee_{In}) are employed as an instrument variable to proxy for management fees in year t. In other words, if paying such a management fee in year t-1have an effect on revenue or GOP in year t, then it would suggest that employing a management company is beneficial to the hotel and its owner, after controlling for a comprehensive array of potentially confounding variables. Moreover, the instrumental variable from year t-1is not correlated with the error term in year t. Therefore, causality can be reasonably established due to the comprehensive control of the confounding variables and the lagged design of the instrument variable and the relevant dependent variables, and it is only possible for the instrument variable at year t-1 to cause the relevant dependent variable in year t to change and not the other way around. Newey West (1994) errors are calculated to accommodate potential autocorrelation and heteroscedasticity issues in Model (1). Positive and significant estimates of β_1 will provide empirical evidence in support of H_1.

To shed light on the impact of the components of management fees on hotel operating performance, Model (1) is then extended as follows:

$$\text{Total Revenue} = \beta_0 + \beta_{1a}\text{Base Management Fee}_{In} + \beta_{1b}\text{Incentive Management Fee}_{In} + \beta_2\text{Rooms} + \beta_3\text{Franchise Royalty} + \beta_4\text{Loyalty Programs} + \beta_5\text{Total Franchise Expenses} + \beta_6\text{Advertising} + \beta_7\text{Training} + \beta_8\text{Website} + \beta_9\text{Promotion Public Relations} + \beta_{10}\text{Other Marketing Expenses} + \varepsilon \quad (2)$$

By individually including the components of management fees in Model (2), the impacts of base management fees and incentive management fees on room revenue are captured via the coefficient estimates of β_{1a} and β_{1b}. Positive and significant estimates of β_{1a} and β_{1b} will provide empirical evidence in support of H_{1a} and H_{1b}. Similarly, this study employs instrumental variable techniques to avoid simultaneity issues between base and incentive management fees, and total revenue; base and incentive management fee instruments (base management $fees_{In}$ and incentive management $fees_{In}$, respectively) are these management fees from year t-1 (Canina & Carvell, 2005; Hua et al., 2017). Newey West (1994) errors are calculated to accommodate potential autocorrelation and heteroscedasticity issues in Model (2). Positive and significant estimates of β_{1a} and β_{1b} are expected.

In addition, sensitivity tests are conducted to show the robustness of the study's findings. Specifically, both Models (1) and (2) are extended to include controls for chain scale and location, as follows:

$$Total\ Revenue = \beta_0 + \beta_1 Total\ Management\ Fee_{In} + \beta_2 Rooms + \beta_3 Franchise\ Royalty + \beta_4 Loyalty\ Programs + \beta_5 Total\ Franchise\ Expenses + \beta_6 Adverti\sin g + \beta_7 Training + \beta_8 Website + \beta_9 Promotion\ Public\ Relations + \beta_{10} Other\ Marketing\ Expenses + \sum_{11}^{15}\beta_i Location_i + \sum_{16}^{20}\beta_i Chainscale_i + \varepsilon \quad (3)$$

$$Total\ Revenue = \beta_0 + \beta_{1a} Base\ Management\ Fee_{In} + \beta_{1b} Incentive\ Management\ Fee_{In} + \beta_2 Rooms + \beta_3 Franchise\ Royalty + \beta_4 Loyalty\ Programs + \beta_5 Total\ Franchise\ Expenses + \beta_6 Adverti\sin g + \beta_7 Training + \beta_8 Website + \beta_9 Promotion\ Public\ Relations + \beta_{10} Other\ Marketing\ Expenses + \sum_{11}^{15}\beta_i Location_i + \sum_{16}^{20}\beta_i Chainscale_i{}_{11}^{15} \quad (4)$$

Where.

$Location_{11}$ = 1, if CBRE identifies a hotel's location as City Center; 0, otherwise.
$Location_{12}$ = 1, if CBRE identifies a hotel's location as Highway; 0, otherwise.
$Location_{13}$ = 1, if CBRE identifies a hotel's location as Resort; 0, otherwise.
$Location_{14}$ = 1, if CBRE identifies a hotel's location as Rural; 0, otherwise.
$Location_{15}$ = 1, if CBRE identifies a hotel's location as Suburban; 0, otherwise.

The base category for location is Airport, which is omitted to avoid perfect multicollinearity.

$Chainscale_{16}$ = 1, if CBRE identifies a hotel's chain scale as Luxury; 0, otherwise.
$Chainscale_{17}$ = 1, if CBRE identifies a hotel's chain scale as Midscale; 0, otherwise.
$Chainscale_{18}$ = 1, if CBRE identifies a hotel's chain scale as Upper Midscale; 0, otherwise.
$Chainscale_{19}$ = 1, if CBRE identifies a hotel's chain scale as Upper Upscale; 0, otherwise.
$Chainscale_{20}$ = 1, if CBRE identifies a hotel's chain scale as Upscale; 0, otherwise.

The base category for chain scale is Economy, which is omitted to avoid perfect multicollinearity.

And lastly, GOP is used as the dependent variable to further explore the impact of management fees on hotel financial performance, extending Models (3) and (4) with chains scale and location controlled in the following. Positive and significant estimates of β_{22}, β_{2a} and β_{2b} in (5) and (6) will provide empirical evidence in support of H_2, H_{2a} and H_{2b}, respectively.

$$GOP = \beta_0 + \beta_{22} Total\ Management\ Fee_{In} + \beta_2 Rooms + \beta_3 Franchise\ Royalty + \beta_4 Loyalty\ Programs + \beta_5 Total\ Franchise\ Expenses + \beta_6\ Adverti\sin g + \beta_7 Training + \beta_8 Website + \beta_9 Promotion\ Public\ Relations + \beta_{10}\ Other\ Marketing\ Expenses + \text{å}_{11}^{15}\beta_i Location_i + \sum_{16}^{20}\beta_i Chainscale_i + \varepsilon \quad (5)$$

$$GOP = \beta_0 + \beta_{2a} Base\ Management\ Fee_{In} + \beta_{2b} Incentive\ Management\ Fee_{In} + \beta_2 Rooms + \beta_3 Franchise\ Royalty + \beta_4 Loyalty\ Programs + \beta_5\ Total\ Franchise\ Expenses + \beta_6 Adverti\sin g + \beta_7 Training + \beta_8 Website + \beta_9 Promotion\ Public\ Relations + \beta_{10} Other\ Marketing\ Expenses + \sum_{11}^{15}\beta_i Location_i + \sum_{16}^{20}\beta_i Chainscale_i + \varepsilon \quad (6)$$

The above tests satisfy the classic conditions that establish causality (Kenny, 1979) since: 1) the instrumental variable precedes the relevant dependent variables, 2) the instrumental variable and the relevant dependent variables are theoretically and empirically correlated; and 3) the relationship between the instrumental variable and the relevant dependent variables are unlikely explained by alternative causes given the comprehensive control for confounding variables.

4. Results

Table 1 reports summary statistics. Overall, the hotels captured in

the sample data span a wide range of characteristics. For example, sizes of hotels range from 41 to 2860 rooms, with an average size of 196 rooms. Management fees were as high as $23.4 million a year, with an average of $318,457. Hotel total franchise expenses reached $14.4 million a year, with an average of $328,453. Total revenue ranged from $550,678 to $435, 000, 000, with an average of $10, 500, 000. Note that negative numbers are likely due to accounting adjustments for the prior year; sensitivity tests were carried out and trimming negative numbers did not qualitatively change the findings of this study (sensitivity test results are not reported due to space constraints but are available upon request).

Table 2 reports results from the correlation analyses of variables in Model (1). Moderate but no concerning multicollinearity issues were detected.

Table 3 reports the test results of Model (1). Empirical results showed a significant and positive estimate of β_1, offering direct evidence in support of H_1. In other words, this study showed that total management fees have a positive and significant impact on hotel operating performance.

To further show the impact of individual management fee component on total room revenue, this study tested Model (2). Table 4 reports the empirical results. Both base management fees and incentive management fees deliver a significantly positive impact on hotel revenue, as shown by significantly positive estimates of β_{1a} and β_{1b}., offering empirical evidence in support of H_{1a} and H_{1b}.

Two sensitivity tests were carried out to ensure the results of both Models (1) and (2) are robust against inclusion of hotel location and chain scale, as prior studies (e.g., Madanoglu & Ozdemir, 2016) showed that these two dimensions may impart a significant impact on hotel operating performance. The empirical results from Models (3) and (4) are reported in Table 5. The coefficient estimates for Total Management Fees, Base Management Fees, and Incentive Management Fees are qualitatively similar to those reported in Tables 3 and 4, showing robustness of the study findings.

Two additional tests were carried out to explore the impact of total management fees, base management fees, and incentive management fees on GOP for hotel operating performance, controlling for hotel location and chain scale. The empirical results from Models (5) and (6) are reported in Table 6. The coefficient estimates for Total Management Fees, Base Management Fees, and Incentive Management Fees are significantly positive, offering empirical evidence in support of H_2, H_{2a}, and H_{2b}, respectively.

5. Conclusion and implications

The purpose of this study is to empirically validate the assumed positive effect of utilizing a management company on the financial performance of a hotel. Total management fees, hotel revenues, and GOP were used in the modeling process. Same-store data for 1471 hotels from 2011 through 2017 were used, and the findings unequivocally support a positive value added management companies to the financial performance of a hotel in terms of increased revenue and GOP. With a β of +6.649 ($p < 0.001$) for total management fee in Model 1 and + 9.352 ($p < 0.001$) and +4.780 ($p < 0.001$) for base management fee and incentive management fee, respectively, in Model 2, the impact of management fee in generating top-line revenue cannot be denied. When chain scale and locations were taken into consideration in Models 3 and 4, these results were upheld. The positive beta coefficients of 6.020 for total management fee and 8.555 for base management fee were statistically significant ($p < 0.001$), while the beta coefficient of +4.350 for incentive management fee was also statistically significant ($p < 0.01$).

Similar results were found for the impact of management fees on GOP, indicating that management companies perform well in controlling costs. The beta coefficient of total management fee on GOP was +3.157 ($p < 0.001$), while that of base management fee was +3.536 ($p < 0.001$) and that of incentive management fee was +2.892 ($p < -0.01$).

5.1. Theoretical implications

Many studies have chronicled the development of management companies and management contracts, and their contributions to the growth of the hotel industry (Beals & Denton, 2005; Contractor & Kundu, 1998; Dev, Erramilli, & Agarwal, 2002; Eyster, 1990; Eyster, 1993; Eyster, 1997; Eyster and deRoos, 2009; Gannon, Roper, & Doherty, 2009; deRoos, 2010). However, none of them have tested this with empirical data, thus lacking validity. As this is the first study to systematically and empirically test the value management companies impart on the financial performance of hotels, the findings of this study fill this critical void in the literature.

Second, this study not only examines management fee in the aggregate but also subdivides management fee into base management fee and incentive management fee, to achieve greater insight into how each affects revenue and GOP. While both components have positive and statistically significant effects on room revenue and GOP, the betas for base management fees are higher than those of incentive management fees, with $p < 0.001$. Overall, it appears that base and incentive management fees are rationally charged, and the potential agency problems between the hotel owners and the management companies are mitigated or reasonably addressed by the positive impacts of both base and incentive management fees.

Third, recognizing that management fee is not the only factor that can affect a hotel's revenue and GOP, and noting that a comprehensive investigation is called for in this area, this study incorporates certain contextual factors—Franchise Royalty, Loyalty Programs, Total Franchise Expenses, Advertising, Training, Website, Promotion Public Relations, and Other Marketing Expenses—to isolate and therefore ensure an exhaustive investigation of management fee and its contribution, after controlling for location and chain scale differences. Thus, the results of this study, together with previous studies on the various expenses a hotel incurs, provides a better understanding of how each expense separately and collectively as part of a hotel's operating expenses can impact hotel performance.

Table 1
Summary statistics.

	N	Mean	Standard Deviation	Minimum	Maximum
Total Revenue	10,297	10,500,000	24,100,000	550,678	435,000,000
Total Management Fee	10,297	318,457	951,021	0	23,400,000
Rooms	10,297	196	222	41	2860
Franchise Royalty	10,297	99,601	304,756	−66,828	9,094,942
Loyalty Programs	10,297	119,026	303,515	−163,556	3,590,925
Total Franchise Expenses	10,297	328,453	670,918	−163,481	14,400,000
Advertising	10,297	33,012	88,748	−7443	3,183,890
Training	10,297	581	2862	−746	55,702
Website Expenses	10,297	17,812	411,039	−1279	41,000,000
Promotion Public Relations	10,297	8159	59,682	−34	2,531,197
Other Marketing Expenses	10,297	121,146	579,687	−40,700,000	8,824,240

Table 2
Correlation analysis results.

	Total Revenue	Total Management Fee	Rooms	Franchise Royalty	Loyalty Programs	Total Franchise Expenses	Advertising	Training	Website Expenses	Promotion Public Relations	Other Marketing Expenses
Total Revenue	1										
Total Management Fee	0.8554	1									
	(0.0000)										
Rooms	0.9252	0.7706	1								
	(0.0000)	(0.0000)									
Franchise Royalty	0.3547	0.2677	0.3553	1							
	(0.0000)	(0.0000)	(0.0000)								
Loyalty Programs	0.8495	0.7346	0.8095	0.4274	1						
	(0.0000)	(0.0000)	(0.0000)	(0.0000)							
Total Franchise Expenses	0.7523	0.6110	0.7383	0.7409	0.8409	1					
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)						
Advertising	0.6262	0.4795	0.5744	0.0440	0.4083	0.3117	1				
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)					
Training	0.3790	0.3561	0.3458	0.2593	0.3960	0.3361	0.0434	1			
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)				
Website Expenses	0.0795	0.0825	0.0678	0.0464	0.0745	0.0596	0.0175	0.1091	1		
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0756)	(0.0000)			
Promotion Public Relations	0.4173	0.3178	0.3649	0.0841	0.3365	0.2873	0.3834	0.2741	0.0052	1	
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.5981)		
Other Marketing Expenses	0.5700	0.4312	0.5558	0.1097	0.4431	0.3630	0.3775	0.0980	−0.6674	0.2031	1
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	

Table 3
Empirical results from Model (1).

	(1)
	Total Revenue
Total Management Fee$_{ln}$	6.649*** (0.861)
Rooms	25720.7*** (2547.2)
Franchise Royalty	−2.228^{+} (1.224)
Loyalty Programs	8.947*** (1.931)
Total Franchise Expenses	5.595*** (1.016)
Advertising	40.25*** (6.301)
Training	350.6*** (75.27)
Website	13.51*** (1.188)
Promotion Public Relations	17.80*** (4.328)
Other Marketing Expenses	13.37*** (1.172)
_cons	−2752448.9*** (273597.6)
N	10,297
adj. R^2	0.951
F	1050.3

Newey West (1994) errors in parentheses.
$^{+}p < 0.10$, $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

Table 4
Empirical results from model (2).

	(2)
	Total Revenue
Base Mgmt Fee$_{ln}$	9.352***
	(0.966)
Incentive Mgmt Fee$_{ln}$	4.780***
	(1.368)
Rooms	23579.1***
	(2307.5)
Franchise Royalty	−1.193
	(1.128)
Loyalty Programs	9.955***
	(1.880)
Total Franchise Expenses	4.710***
	(0.906)
Advertising	40.29***
	(6.082)
Training	302.1***
	(69.66)
Website	11.43***
	(1.081)
Promotion Public Relations	15.74***
	(4.530)
Other Marketing Expenses	11.30***
	(1.082)
_cons	−2520805.7***
	(249504.7)
N	10,297
adj. R^2	0.952
F	1250.6

Newey West (1994) errors in parentheses.
$^{+}p < 0.10$, $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

5.2. Managerial implications

This study confirms the validity of employing the services of a management company. Its results show that partnering with a management company is a viable option for owners who either do not have much experience in hotel operations or are not able to operate the hotel themselves due to distance or other factors.

Second, even if an owner obtains a franchise, he or she still needs someone to manage the hotel on a daily basis in accordance with the management agreement. As many management companies and asset management companies work with franchisors of different brands, and since this study, which incorporates the moderating effects of franchise and marketing factors, still shows that the management fee contributes to the financial performance of a hotel. Therefore, owners can look to management companies to add value to their hotel properties, and thus

Table 5
Empirical results from models (3) and (4).

	(3)	(4)
	Total Revenue	Total Revenue
Total Mgmt Fee$_{ln}$	6.020*** (0.895)	
Base Mgmt Fee$_{ln}$		8.555*** (0.989)
Incentive Mgmt Fee$_{ln}$		4.350** (1.431)
Rooms	31394.8*** (2535.2)	28899.3*** (2352.3)
Franchise Royalty	−1.740 (1.167)	−0.888 (1.013)
Loyalty Programs	10.21*** (1.887)	11.18*** (1.817)
Total Franchise Expenses	5.355*** (1.052)	4.690*** (0.896)
Advertising	33.28*** (6.128)	33.77*** (5.917)
Training	305.0*** (69.70)	273.4*** (64.61)
Website	12.12*** (1.148)	10.32*** (0.989)
Promotion Public Relations	18.69*** (4.018)	16.69*** (4.010)
Other Marketing Expenses	12.02*** (1.137)	10.23*** (0.996)
Luxury	6778122.6*** (1368464.7)	5923654.4*** (1230901.3)
Midscale	−991822.7(1368464.7)*** (137070.6)	−982621.5*** (110216.9)
Upper Midscale	−1700679.8*** (246028.5)	−1927053.8*** (224805.8)
Upper Upscale	−3039572.6*** (536622.2)	−3358371.1*** (488088.8)
Upscale	−1878318.7*** (254598.7)	−2045955.8*** (229642.3)
City Center	−187614.4 (280317.5)	−35326.8 (256313.0)
Highway	816447.6*** (164582.1)	788951.5*** (147015.9)
Resort	3493137.7*** (552472.5)	3268790.6*** (507931.8)
Rural	860008.9*** (229519.1)	814995.7*** (219987.0)
Suburban	866627.9*** (146375.1)	872412.6*** (130910.9)
_cons	−3314446.3*** (364333.0)	−3007000.9*** (336142.0)
N	10,297	10,297
adj. R^2	0.957	0.957
F	1072.1	1230.6

Newey West (1994) errors in parentheses.
$^+ p < 0.10$, $^*p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

Table 6
Empirical results from models (5) and (6).

	(5)	(6)
	Gross Operating Profits	Gross Operating Profits
Total Mgmt Fee$_{ln}$	3.157*** (0.612)	
Base Mgmt Fee$_{ln}$		3.536*** (0.678)
Incentive Mgmt Fee$_{ln}$		2.892** (1.078)
Rooms	8267.2*** (1604.4)	8013.2*** (1700.0)
Franchise Royalty	−3.086*** (0.698)	−2.990*** (0.667)
Loyalty Programs	1.770 (1.155)	1.877 (1.145)
Total Franchise Expenses	3.411*** (0.639)	3.315*** (0.603)
Advertising	18.26*** (3.435)	18.43*** (3.432)
Training	84.51$^+$ (44.80)	79.29$^+$ (43.98)
Website	5.076*** (0.796)	4.837*** (0.712)
Promotion Public Relations	8.953* (3.523)	8.453** (3.192)
Other Marketing Expenses	5.016*** (0.779)	4.781*** (0.706)
Luxury	−2168403.2** (747540.8)	−2295312.4** (716872.2)
Midscale	−569749.7*** (89252.3)	−563407.1*** (86391.9)
Upper Midscale	−920490.8*** (146423.4)	−945399.8*** (151094.3)
Upper Upscale	−2083297.4*** (323814.7)	−2134265.0*** (319842.1)
Upscale	−746044.5*** (157389.9)	−769444.5*** (165128.4)
City Center	−133550.2 (159532.5)	−121824.3 (163419.6)
Highway	19764.0 (99872.6)	20635.3 (99029.0)
Resort	688067.8* (326513.3)	688204.4* (326450.4)
Rural	−174472.3 (155445.9)	−182528.0 (160224.5)
Suburban	201222.2* (84223.6)	205100.4* (82470.5)
_cons	−446665.3$^+$ (234120.4)	−426308.8$^+$ (245400.3)
N	10,297	10,297
adj. R^2	0.898	0.898
F	415.8	400.5

Newey West (1994) errors in parentheses.
$^+ p < 0.10$, $^*p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

the relationship between owners and management companies is solidified and proven through the results.

While it is important to recognize the value of management companies, it is equally important to ensure that the management contract itself is a document that is fair to both parties. As revenues and GOP are measured in this study, one significant provision in a management contract is the designated use of the proper edition of the Uniform System of Accounts for the Lodging Industry (USALI), so meaningful benchmarking can be performed. CBRE, STR, HotStats, and all other reputable consulting firms that collect operating data use the USALI. While most major hotel companies and hotel management companies also use USALI, some do not. New or small independent owners who are employing a management company or asset management company should designate in the management contract that the use of the latest version of USALI is non-negotiable. Without proper accounting of revenues and expenses, the management fee may be more than what it should be, and meaningful comparisons cannot be made.

As previously mentioned, the courts have generally upheld that agency law controls the relationship between the hotel owner and the management company, irrespective of what the management contract states (Woolley v. Embassy Suites, Inc., 1991). There has been a recent push by hotel management companies, more specifically Marriott and Starwood, to legislatively undo this precedent. Marriott and Starwood were successful in lobbying for the Maryland Exception, (Md. Code Ann. Com. Law III Sec. 23-100-105), which states that the management contract controls and agency law does not apply. Thus, never giving rise to the agency relationship or any of the fiduciary duties imposed by law on the agent (hotel Management Company) for the benefit of the principle (owner). While the issue of whether the hotel management company is an agent owing certain duties to the hotel owner has been a source of contention in the past, the results of this study shows that management companies do in fact add value to a hotel's bottom line, even after management fees. Thus, perhaps the contention between

hotel owners and hotel management companies with respect to value the management company brings to the hotel owner can be mitigated.

The results of this study also supports the findings of deRoos and Wiseheart (March 19, 2016) that issues like whether hotel management companies are agents or independent contractors become more salient during economic downturns. These issues are generally ignored when the economy is good. However, clear communication with respect to the duties imposed by agency law in the negotiation of a management contract will go a long way to avoid potential disputes in the future. In this regard, owners should pay special attention when negotiating the contract, and not only concentrate on the fees, expenses, and term but also other important factors such as termination of the agreement, hiring and retention of employees, all financial reporting including books and records, procurement, budget review and control. To be proactive, even the process of dispute resolution and miscellaneous control provisions such as selecting the competitive set of hotels in measuring the subject property's performance, or using third parties in the operation of the hotel, should all be part of the hotel management agreement negotiation.

Finding ways to ensure that the same measures are being used to define revenues and GOP will also help in this process. Given that this study shows that management companies do in fact add value to a hotel's bottom line, even after management fees, it is clearly in the best interests of both owners and management companies to negotiate and draft clear and enforceable management contracts to help in the management of the hotel's operations.

6. Limitations and future studies

Although the data empirically validated the use of management companies, the results also need to be interpreted with caution, as all studies have their limitations. While the sample size is large, the data were from 2011 through 2017 for hotels in the U.S. This was a time when the U.S. economy was recovering from the housing market crash of 2008. Therefore, data that can capture both a major economic downturn and recovery may provide better insight into the effectiveness of employing a management company. Second, as the hotel industry is a worldwide industry, data from hotels outside the U.S. should also add to the veracity of the results of this study and open up a different perspective of hotel management outside the U.S. Third, while data serve well as indicators, a qualitative research to explore the advantages and disadvantages from both the perspective of the owners and that of the management company can add value by shedding light on the owner-management relationship and, therefore, hotel revenue and GOP. Undoubtedly, using secondary data obviously may also not be as helpful in explaining the precise role of management fee in contributing to revenues and GOP. Yet, gathering primary data from a vast number of hotels over a seven year period would be difficult from a resource standpoint. Finally, this research did not differentiate the size or chain scale of the hotels. As mentioned in the literature review, the hotels' characteristics have a direct relationship to fees charged and also terms. Perhaps future research can subdivide hotels by size and chain scale to ascertain which hotel group would benefit most from a management contract relationship.

Author contribution

Nan Hua 45%, Agnes DeFranco 35%, JeAnna Abbott 20%, Total 100%

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.tourman.2020.104093.

References

deRoos, J. A. (2010). Hotel management contracts - past and present. *Cornell Hospitality Quarterly, 51*, 68. Available at: http://search.proquest.com.ezproxy.lib.uh.edu/docview/209708676?accountid=7107. (Accessed 10 December 2018).

deRoos, J. A. (2016). Hotel management agreement structures. In R. Musgrove, L. E. Raleigh, & A. J. Singh (Eds.), *Hotel asset management principles and practices* (3rd ed., pp. 327–355). Orlando, Florida: American Hotel & Lodging Educational Institute.

American Hotel, & Lodging Educational Institute. (2014). *Uniform system of accounts for the lodging industry* (11th ed.). Michigan: American Hotel & Lodging Educational Institute.

Beals, P. (1995). The hotel management contract: Lessons from the North American experience. In P. Harris (Ed.), *Accounting and finance for the international hospitality industry* (pp. 278–294). London: Butterworth-Heinemann.

Beals, P., & Denton, G. (2005). The current balance of power in North American hotel management contracts. *Journal of Retail and Leisure Property, 4*(2), 129–145.

Bosch, W. M., & Cavanaugh, A. F. (2016). Key legal issues: The battle for control. In R. Musgrove, L. E. Raleigh, & A. J. Singh (Eds.), *Hotel asset management principles and practices* (3rd ed., pp. 397–414). Orlando, Florida: American Hotel & Lodging Educational Institute.

Canina, L., & Carvell, S. (2005). Lodging demand for urban hotels in major metropolitan markets. *Journal of Hospitality & Tourism Research, 29*(3), 291–311.

Cassidy, K., & Guilding, C. (2011). Management models and differential agency challenges arising in Australia multi-titled tourism accommodation properties. *Tourism Management, 32*, 1271–1281.

Chen, J. J., & Dimou, I. (2005). Expansion strategy of international hotel firms. *Journal of Business Research, 58*, 1730–1740.

Contractor, F. J., & Kundu, S. K. (1998). Modal choice in a world of alliances: Analyzing organizational forms in the international hotel sector. *Journal of International Business Studies, 29*, 325–357.

deRoos, J. A., & Wiseheart, M. (March 19, 2016). *Agency Tests in Hotel Management Agreements*. Available at: SSRN: https://ssrn.com/abstract=2754217. (Accessed 21 November 2019).

Dechow, P., & Sloan, R. G. (1991). Executive incentives and the horizon problem: An empirical investigation. *Journal of Accounting and Economics, 14*(1), 51–89. https://doi.org/10.1016/0167-7187(91)90058-S.

DeFranco, A., Morosan, C., & Hua, N. (2017). Moderating the impact of e-commerce expenses on financial performance in American upper upscale hotels: The role of property size. *Tourism Economics, 23*(2), 429–447.

Dev, C. S., Erramilli, M. K., & Agarwal, S. (2002). Brands across boarders: Determining factors in choosing franchising or management contracts for entering international markets. *Cornell Hotel and Restaurant Administration Quarterly, 43*(6), 91–104.

Evanoff, M. (2016). The international hotel management agreement: Original, evolution, and status. *Cornell Hospitality Report, 16*(11), 3–15.

Eyster, J. J. (1990). Trends in hotel management contract provisions for the 1990s. *Real Estate Review, 20*(3), 28. Available at: http://search.proquest.com.ezproxy.lib.uh.edu/docview/216020587?accountid=7107. (Accessed 10 December 2018).

Eyster, J. J. (1993). The revolution in domestic hotel management contracts. *Cornell Hotel and Restaurant Administration Quarterly, 34*(1), 16–26.

Eyster, J. J. (1997). Hotel management contracts in the U.S.: Twelve areas of concern. *Cornell Hotel and Restaurant Administration Quarterly, 38*(3), 21–33. Retrieved from http://search.proquest.com.ezproxy.lib.uh.edu/docview/209730460?accountid=7107. (Accessed 10 December 2018).

Eyster, J. J., & deRoos, J. A. (2009). *The negotiation and administration of hotel management contracts*. New York, NY: Pearson.

Gannon, J., Roper, A., & Doherty, L. (2009). The impact of hotel management contracting on IHRM practices: Understanding the bricks and brains split. *International Journal of Contemporary Hospitality Management, 22*(5), 638–658.

Guilding, C. (2003). Hotel owner/operator structures: Implications for capital budgeting process. *Management Accounting Research, 14*, 179–199.

Hua, N., Morosan, C., & DeFranco, A. (2015). The other side of technology adoption: Examining the relationships between e-commerce expenses and hotel performance. *International Journal of Hospitality Management, 45*(1), 109–120.

Hua, N., O'Neill, J. W., Nusair, K., Singh, D., & DeFranco, A. (2017). Does paying higher franchise fees command higher RevPAR? *International Journal of Contemporary Hospitality Management, 29*(11), 2941–2961.

Hua, N., Wei, W., DeFranco, A., & Wang, D. (2018). Do loyalty programs really matter for hotel operational and financial performance? *International Journal of Contemporary Hospitality Management, 30*(5), 2195–2213.

Josiassen, A., Assaf, A. G., & Knezevic Cvelbar, L. (2014). CRM and the bottom line: Do all CRM dimensions affect firm performance? *International Journal of Hospitality Management, 36*(1), 130–136.

Kenny, D. A. (1979). *Correlation and causality*. New York: Wiley.

Lado-Sestayo, R., Otero-Gonzalez, L., Vivel-Bua, M., & Martorell-Cunill, O. (2016). Impact of location of profitability in the Spanish hotel sector. *Tourism Management, 52*, 405–415.

Lee, J., Capella, M., Taylor, C., Luo, M., & Gabler, C. (2014). The financial impact of loyalty programs in the hotel industry: A social exchange theory perspective. *Journal of Business Research, 67*(10), 2139–2146.

Madanoglu, M., & Ozdemir, O. (2016). Is more better? The relationship between meeting space capacity and hotel operating performance. *Tourism Management, 52*, 74–81. https://doi.org/10.1016/j.tourman.2015.06.005.

Melissen, F., van Ginneken, R., & Wood, R. C. (2016). Sustainability challenges and opportunities arising from the owner-operator splits in hotels. *International Journal of Hospitality Management, 54*, 35–42.

Newey, W. K., & West, K. D. (1994). Automatic lag selection in covariance matrix estimation. *The Review of Economic Studies, 61*(44), 631–653.
O'Neill, J., & Carlback, M. (2011). Do brands matter? A comparison of branded and independent hotels' performance during a full economic cycle. *International Journal of Hospitality Management, 30*, 515–521.
O'Neill, J., Hanson, B., & Matilla, A. (2008). The relationship of sales and marketing expenses to hotel performance in the United States. *Cornell Hospitality Quarterly, 49* (4), 355–363.
O'Neill, J., & Mattila, A. (2006). Strategic hotel development and positioning: The effects of revenue drivers on profitability. *Cornell Hotel and Restaurant Administration Quarterly, 47*(2), 146–154.
Parkinson, G. (2006). Hotel asset management: European principles and practice. In P. Harris, & M. Mongiello (Eds.), *Accounting and financial management: Development in the international hospitality industry* (pp. 326–340). London: Butterworth-Heinemann.
Pekala, N. (1990). Short-term measures, long-term markets: A summary from the 1990 Institute of real estate management asset management symposium. *Journal of Property Management, 55*(4), 26–28.
Perret, S., Martin, C., & Balyozyan, D. (April 24, 2017). Hotel management contracts in Europe. Available at: https://www.hvs.com/article/7993-hotel-management-contracts-in-europe. (Accessed 21 November 2019).
Renard, J. S., & Motley, K. (2003). How Woolley, Woodley, and other cases rearranged the hotel-management landscape. *Cornell Hotel and Restaurant Administration Quarterly, 44*(3), 58–76.
Repetti, T. (2013). The finance and marketing dilemma: Do promotional allowances actually increase revenue and profits for Atlantic City casinos? *UNLV Gaming Research and Review Journal, 17*(1), 1–12.
Singh, A., & Dev, C. (2014). Winners and losers during the Great Recession: The positive impact of marketing expenditures. *Cornell Hospitality Quarterly, 56*(4), 383–396.
Singh, A. J., Kline, R. D., Ma, Q., & Beals, P. (2012). Evolution of hotel asset management: The historical context and current profile of the profession. *Cornell Hospitality Quarterly, 53*(4), 326–338.
Song, B. D., & Ko, Y. D. (2017). Quantitative approaches for location decision strategies of a hotel chain network. *International Journal of Hospitality Management, 67*, 75–86.
STR. (2018a). *Hotel industry foundations*. Information for the Certified Hotel Industry Analytics Examination.
STR. (2018b). *STR chain scales – STR global*. Available at: https://www.strglobal.com/Media/Default/Documents/STR-ChainScales2018.xlsx. (Accessed 1 December 2018).
Turner, M. J., & Guilding, C. (2010). Hotel management contracts and deficiencies in owner-operator capital expenditure goal congruency. *Journal of Hospitality & Tourism Research, 34*(4), 478–511.
Wilson, R. H. (2001). Agency law, fiduciary duties, and hotel management contracts. *Journal of Hospitality & Tourism Research, 25*(2), 147–158.
Wooley, v (1991). *Embassy Suites, Inc. 227 Cal.App. 3d 1520, 278 cal. Rptr. 719*. Cal. Ct. App.
Zhang, J. J., Lawrence, B., & Anderson, C. K. (2015). An agency perspective on service triads: Linking operational and financial performance. *Journal of Operations Management, 35*, 56–66.

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