Corporate brand and hotel performance: A resource-based perspective

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Abstract

Based on resource-based theory (RBT), our study analyzes the conditions that make the corporate brand have a greater impact on firm's performance. Using a five-year panel of Spanish hotels, our results confirm that hotels with corporate brand have greater profitability. In line with RBT, this effect is stronger when the corporate brand is more valuable for customers (i.e., for lower quality segment), when it is more difficult to imitate (i.e., older brands) and finally when it is exploited through specific organizational governance mechanisms (i.e., vertically integrated organization). Contrary to RBT, we found a negative effect of rarity on the performance of hotels that compete in the same city. More specifically, our results show that as more hotels use the corporate brand, the profits for the firms that compete nearby increase. Thus, the results provide support for RBT but it also provides novel ideas regarding the effect of rarity.

Keywords: corporate brand, profit, price, resource based theory, hotel industry

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1. Introduction

Companies can decide to use a different brand across different products or an umbrella corporate brand that covers all their products and services (Aaker, 2004). Compared to individual brands, corporate brands may provide a more solid base to differentiate the products and services because "while products or services tend to become similar over time, organizations are inevitably very different" (Aaker, 2004: 10). Moreover, the use of the corporate brand makes brand management easier and less costly (Aaker, 2004). Thus, the corporate brand has the potential to provide firms with a sustainable competitive advantage (Balmer and Gray, 2003).

Resource-based theory (RBT) provides a useful theoretical lens for explaining and predicting a firm's superior performance from the analysis of the firm as a collection of resources (Barney, 1991). According to this perspective, a sustainable competitive advantage is generated only when resources are valuable, rare, difficult to imitate and substitute, and the firm's organization properly allows for the exploitation of the resource (Barney, 1996). This theory has received strong empirical support in the strategy field (e.g., Crook, Ketchen, Combs and Todd, 2008), although the extent to which specific types of resources need to be unique to provide a competitive advantage has been barely examined in empirical studies (Armstrong and Shimizu, 2007).

In this study we will focus on the corporate brand as a critical resource and its effect on performance. In particular, we will analyze the circumstances under which the use of a corporate brand may have a significant higher effect on firm profits, more precisely, when the brand may be regarded as providing greater value, is rarer and more difficult to build, and is exploited through proper organizational arrangements.

To address this research question, we use a hand coded dataset of Spanish hotels. In this sample, we can distinguish between those hotels within a specific company that use the corporate brand name (e.g., NH Hotels) and those that do not, typically smaller chains or independent hotels that use individual brand names for each hotel. This distinction allows us to measure the effect of a corporate brand on the financial performance of each individual hotel. We believe that the hotel setting in this study is especially well fitting, since, unlike most extant research, we can identify, isolate, and measure all four features of strategic resources (Kozlenkova, Samaha and Palmatier, 2014).

Our empirical results confirm that the corporate brand is a strategic resource that helps hotels to obtain higher profits per room. Additionally, we provide evidence that the effect on profits increases when the hotel competes in the low- quality segment; the corporate brand is older, and the hotel is vertically integrated. However, we find contrary results regarding the rarity of corporate brands. We find that when corporate brands agglomerate within a radius of two kilometers, the profits of all hotels with corporate brand increase.

Our study makes two key contributions to the literature on strategic resources and firm performance. First, our results provide clear support for RBT as a useful perspective to understand the corporate brand as a strategic resource. More specifically, we obtain empirical support in the hotel industry context for three of the four key features of strategic resources: value, inimitability, and organizational alignment. Second, our study shows that at least some strategic resources, such as a strong corporate brand, may benefit not only the hotels that enjoy them, but also their competitors that use a similar value-creating resource. Contrary to RBT, our results

suggest that hotels with corporate brand benefit from the presence of near hotels that also use the corporate brand.

2. Theory and hypotheses

2.1. Corporate brand and firm performance in the hotel industry

Research supports the positive relationship between some market-based resources such as brands, and performance (Hooley, Greenley, Fahy and Cadogan, 2005). However, the empirical evidence about the specific relationship between corporate brand and firm performance is limited (Fetscherin and Usunier, 2012). Rao, Agarwal and Dahlhoff (2004) found that firms that used their corporate brand had higher intangible value (i.e., highest values of Tobin's Q) compared to firms that used a house of brands (i.e., the use of distinct brands not linked to the corporate brand). Similarly, Wang and Sengupta (2016) found a positive relationship between corporate brand equity, measured as the ratio between corporate brand's value and total assets, and corporation value (i.e., Tobin's Q).

The use of the corporate brand can decrease the marketing costs through economies of scale (Hardaker and Fill, 2005). It also reduces consumer's search costs and provides a signal of the product's quality and consistency, which can be very valuable for customers especially when they buy products whose quality can only be assessed after the purchase (e.g., experience goods) (Kirmani and Rao, 2000; Weigelt and Camerer, 1988). Moreover, corporate brands help firms to differentiate in the minds of its stakeholders (Balmer and Gray, 2003).

Within the hotel industry in particular, companies can use different brand name strategies for their hotels: a corporate brand for all of their hotels (e.g., NH Hotels), a house of brands (e.g., Accor uses different brands such as Ibis, Novotel or Sofitel

without the corporate brand name), or a corporate brand for some hotels and individual brands for others (e.g., Meliá hotels have chains that use the corporate brand, such as Gran Melià, and chains that use other brand names, such as Tryp or Paradisus). In addition, there are independent hotels that compete with individual brand names. Consistent with the literature on branding in other contexts, previous research in the hospitality industry has gathered empirical evidence of the superior performance of hotels that share a common brand name (O'Neill and Carlbäck, 2011; O'Neill and Mattila, 2006), although they do not specifically examine the relationship between corporate brands and financial performance.

Hotel chains may benefit from the advantages of using the corporate brand, such as the economies of scale in marketing and greater efficiency in creating brand equity (Rao et al. 2004) which can decrease the marketing costs of their hotels. The use of a corporate brand among hotels allows them to exploit the degree of homogeneity in the type of service offered to consumers, which makes it a signal of the hotel's quality (Ingram, 1996; Wernerfelt, 1988). A corporate brand name serves as a guarantee of quality of the chain's hotels to the extent that if one hotel offers bad quality service, it will damage the chain's reputation across the entire set of hotels using the brand. Corporate brands can help chains and each of their hotels to differentiate in the minds of its stakeholders (Balmer and Gray, 2003). Given the lower marketing costs and the possibility to create a differentiation advantage, we expect that:

H1. Hotels with corporate brands have greater performance compared to hotels that do not use the corporate brand.

2.2. The value of a corporate brand for hotels

RBT asserts the importance of the value generating potential of a particular resource or capability (Barney, 1991). In the context of the hotel industry, the potential value that a corporate brand can bring to a particular hotel depends on the particular features of the hotel and the extent to which adding a brand name can have a substantial impact of the customers' perceptions about the hotel. More precisely, we should explicitly consider the additional contribution the corporate brand can make to the hotel as a collection of resources.

Hotels that compete in the high-quality segment (i.e., five-star hotels) offer to its guests an enhanced bundle of services based on tangible elements such as more facilities, service variety, and larger rooms, which makes the hotel inherently more attractive as a collection of resources and limits the relative benefit that a corporate brand can provide to the hotel. Conversely, the corporate brand provides relatively greater value to hotels that compete in the low-quality segment (i.e., those with fewer stars) because these hotels can be regarded as a more limited collection of resources, such that adding a new one (i.e., a corporate brand) can have greater impact on the performance, all else equal.

From a resource perspective, the value of a corporate brand as a guarantee of quality for customers should be relatively greater for the lower-quality segment than for the higher-quality segment. The effectiveness of corporate brand name as a signal of high and consistent quality should be less relevant for a five-star hotel, because in this case a high category is already providing information about the level of quality of the hotel that makes the corporate brand relatively less valuable.

In sum, we propose that in the high-quality segment the relative value of the corporate brand will be weaker since a high category (five stars) already communicates a high level of quality as a rich collection of resources. By contrast, we expect that in

the low-quality market segment, the relative value of a corporate brand will be stronger, as the following hypothesis suggests:

H2. The positive effect of a corporate brand on hotel performance is higher for hotels competing in the low-quality segment than for hotels competing in the high-quality segment.

2.3. The corporate brand as a rare resource for hotels

According to RBT, having a valuable resource is not enough to generate a competitive advantage if other firms hold this resource. Thus, a resource must also be rare, that is, controlled only by a small number of competing firms (Barney, 1991). If a resource is valuable but common, it will be a source of competitive parity, while if it is valuable and rare it may create a competitive advantage.

Given the importance of location in the hotel industry, we should apply the degree of rarity in the use of a corporate brand to the specific location in which a hotel is present. Thus, based on the RBT, we may expect that the use of a corporate brand will have greater impact on hotel performance in those cities where a higher proportion of hotels do not use of a corporate brand, that is, in those locations where having a corporate brand is rare and fewer competitors also use a corporate brand.

It should be noted that the rareness of a hotel's corporate brand comes not only from the presence or absence of other branded hotels in a particular market, but it is further enhanced by its peculiar characteristics. Some scholars have argued that corporate brand is a rare resource "because it is the result of a unique historical pattern of development" (Balmer and Gray, 2003: 987). Thus, the uniqueness of each brand makes it idiosyncratic to the firm and rare in a sense that no two brands are exactly

alike, further enhancing the rarity of having a specific corporate brand in a given location.

Hence, we hypothesize:

H3. The positive effect of corporate brand on hotel performance is higher in cities with a high percentage of competitors that do not use a corporate brand (high rarity) than in cities with a low percentage of competitors that do not use a corporate brand (low rarity).

2.4. Imperfect imitability of a hotel corporate brand

According to RBT, a valuable and rare resource can be a source of competitive advantage, but to be sustainable it also needs to be difficult to imitate (Barney, 1991). In this sense, a resource is imperfectly imitable when the costs of developing or obtaining it by competitors are substantially high (Barney and Hesterly, 2015) and there are substantial ex-ante and ex-post limits to competition (Peteraf, 1993).

Corporate brands are difficult to imitate for a number of reasons. In the strictest sense, the brand name and logo are protected by law, therefore each brand name is unique by law and cannot be exactly replicated by competitors (Balmer and Gray, 2003). Building a strong corporate brand implies the alignment of the strategic vision, the organizational culture, and the corporate image, which is a complex process that takes time and reduces its imitability (Hatch and Schultz, 2003). Furthermore, "brands cannot be obtained with money alone" (Kozlenkova et al., 2014:12), since brand building is a socially complex and causally ambiguous task (Hooley et al., 2005). Thus, replicating a corporate brand is indeed a difficult challenge that severely limits the imitability and substitutability of a successful brand.

In the specific context of the hotel industry, corporate brands are not only valuable and rare, but they are also difficult to obtain and replicate. On the one hand, most independent hotels throughout Europe are generally too small or not well located to be accepted as a franchisee of existing hotel chains (Holverson and Revaz, 2006). Thus, it is difficult for independent hotels to become part of an existing chain, particularly for the most firmly established hotel brands. Furthermore, it is even more difficult for independent hotels to build a branded chain on their own. Having a successful brand requires integrated revenue maximization strategies and techniques, in addition to proper employee training to achieve consistency in service delivery (Forgacs, 2003).

From a resource perspective, developing and maintaining a successful corporate brand is a costly and challenging undertaking that requires substantial financial resources, sophisticated expertise, and a long-term horizon to accumulate both in order to create the uniqueness of the brand in the mind of the customer. Competitors "cannot easily match lasting impressions left in the minds of individuals and organizations by years of marketing activity" (Kotler, Keller, Brady, Goodman and Hansen, 2009: 429). In this sense, older corporate brands should be more difficult to obtain (via franchising) and replicate (via imitation). Hence, with respect to the imperfect imitability of the corporate brand, we hypothesize now a positive moderating role of brand age on the relationship between corporate brand and hotel performance as follows:

H4. The positive effect of corporate brand on hotel performance is higher for old brands than for new brands.

2.5. Organizational exploitation of a corporate brand

Finally, RBT claims that having an appropriate organization to exploit the potential of the resource is the last critical condition that allows firms to generate a sustainable competition advantage from a resource (Barney, 1996; Barney and Hesterly, 2015). The mere possession of valuable, rare, and inimitable resources may not be sufficient to fully leverage their potential for superior performance. Appropriate organizational structures, processes, and policies are necessary to realize the full competitive advantage potential of a resource (Barney, 1996; Kozlenkova et al., 2014). In this case, the organization acts as an "adjustment factor" that either enables or prevents a firm from fully realizing the benefits embodied in its valuable, rare, and costly to imitate resources (Kozlenkova et. al., 2014; Barney and Clark, 2007).

One of the organizational decisions a firm has to make in order to realize the full potential of its resources concerns its degree of vertical integration (Barney, 1996). In the context of the hotel industry, real estate ownership can be separated from the management of the hotel, which leads to different organizational forms (de Roos, 2010). Thus a hotel chain can be vertically integrated by being the owner and the operator of the hotels. In this case the chain controls the property of the buildings, the brand, and the management. This organizational form allows the maximum control and coordination over the assets of all the hotels that belong to the chain. As an alternative, hotel chains can operate a hotel when they are responsible for its strategy and the management of the daily operations, but rent the building to a real estate company. This organizational form allows the chain to expand the reach of its brand, and earn profits without having to invest in any property. Finally, a hotel chain can franchise its brand. In this particular case, the chain does not own or manage the hotel, but only receives a royalty fee for the brand use (Kosová, Lafontaine and Perrigot, 2013)[2].

[2] While franchising is common in USA and France, it is highly uncommon in Spain, for that reason we will focus specifically on the two first organizational forms in our study

We expect that hotels with a stronger corporate brand will have an incentive to be vertically integrated to protect their brand from the potential opportunistic behavior of those hotels that may piggyback on the brand and damage its reputation. We argue that hotels owned and managed by the same company should be able to extract the full value of any investment in the corporate brand. By contrast, where a separation between ownership and management exists, property owners would have a reduced incentive to make specific investments that benefit the brand, because they have to absorb the cost but the gains are specific to the branded hotel. This second scenario becomes more likely when the brand is stronger and it has greater effect on hotel performance because strong brands require substantial asset-specific investments by property owners to keep up the value of the brand.

Based on this argument about the superiority of internal governance when the corporate brand has greater impact on hotel performance, we hypothesize:

H5. The positive effect of corporate brand on hotel performance is higher when the hotel is owned and managed by the same company (vertically integrated) than when the hotel is owned and managed by different companies (not vertically integrated) .

3. Data and Method

3.1. Data

We used a variety of secondary data sources (i.e., Official Hotel Guide, Spanish Patent and Trademarks Office, Hotel Occupancy Survey etc.) to build a comprehensive dataset of hotels in Spain for the five-year period 2004-2008, before the industry was severely hit by the recent global financial crisis. The entire population of hotels in Spain consists of 43,172 hotel-year observations spanning five years. We collected data from SABI database (Sistema de Análisis de Balances Ibéricos) on profit information of

individual hotels. First, we used the Census of Hotels 2005 from Alimarket to obtain the name of the company that operates the hotel. Second, we collected the financial data of each company from SABI database, discarding all the companies that were diversified in other activities. Because public information about individual hotel performance is available for a relatively small number of hotels, our final dataset was limited to 1,509 hotel-year observations, which was further reduced to a final sample of 998 hotel-year observations after those hotels with missing data were discarded.

3.2. Variables description

3.2.1. Dependent variables

Yearly Gross Profit per Room is the key dependent variable in our analyses, as reported by SABI database. To calculate this variable we divided the yearly total gross operating profit by the hotel's number of rooms. The gross operating profit per available room is one of the most commonly used profitability measures in the hospitality industry (Singh and Dev, 2015).

3.2.2. Independent variables

We use the variable Corporate Brand as our key independent variable. This dummy variable was manually codified and it takes the value of one when the hotel's brand includes the parent group name, such as Meliá, NH, or Barceló; and it takes the value of zero when the brand name does not include the corporate brand name.

To measure value, we use the number of Stars (one to five stars) of each hotel as reported by the Official Hotel Guide (published yearly by Instituto de Estudios Turísticos). This variable indicates the market segment where each hotel competes (i.e., luxury vs economy).

To measure rarity, we use the variable Percentage of non-branded Hotels, which measures the proportion of competitors in the municipality that do not use a corporate brand over the total number of competitors that are located in the same municipality.

To measure the difficulty to imitate, we use Brand's age**.** To calculate the brand's age, we first collected data about the brand registration's year in the Spanish Patent and Trademark Office, which is the Spanish public agency responsible for the registration and granting of the different types of industrial property. However, we noticed that as almost all corporate brands were registered in the Office (88.8%), very few individual brands were registered (33%). In addition, all the corporate brands were registered before or during the year 2008, but a percentage of the individual brands (around 10%) were registered after the year 2008, which raises doubts about the reliability of the data for individual brands. Since individual brands are usually linked to the hotel's physical property and do not change along hotel's life unless the hotel affiliates to a chain and adopts the corporate brand or a sub-brand, we collected data for the year in which the hotel received the license to open. The data come from the Tourism department of each Autonomous Region. Because our data include only hotels with corporate brand and hotels with individual brand names, brand's age is computed for corporate brands as the number of years since the registration of the corporate brand in the Spanish Patent and Trademark Office, and for individual brands as the number of years since the hotel's opening year.

Finally, to measure organizational differences to exploit the corporate brand, we use the variable Vertical Integration**,** which is a dummy variable that takes the value of one when the hotel is owned and managed by the same company. We collected information about the names of the owner and the management company from the Census of Hotels of Alimarket.

3.2.3. Control variables

We included several control variables in the analysis to account for the key attributes of the hotel. All these variables were collected from the Official Hotel Guide.

Chain is a dummy variable that represents whether the hotel is part of a chain, regardless of whether or not it uses the corporate brand. By including this variable in the analysis, we guarantee that the benefits of corporate brand are not confounded with other benefits that a hotel may receive for its chain affiliation.

To control for hotel's services that can also influence the hotel's profits because they can have an impact on the customer willingness to pay and on the hotel's costs we use the following dummy variables: Historical Building, Parking, 24 Hour Room Service, Meeting Rooms, Family Rooms and Accessible Facilities for the Disabled. The number of Leisure Services represents the sum of all leisure services offered by the hotel (e.g. discotheque, swimming pool, tennis, golf, etc.).

Central Location is a dummy variable that captures the attractiveness of the hotel's location. It takes the value of one if the hotel is located at the center of the city.

Uniqueness controls for the level of competition. This variable was built as the average of the percentage of hotels that do not offer each service. The range of this variable is from 0 to 1. A level close to 1 implies that the hotel's services are not provided in the same city by any other hotel, that is, that the hotel is unique in services and for that reason it will face a lesser degree of price competition.

We also control for key differences between cities:

Occupancy Rate controls for differences in the strength of demand between cities. It was collected from the Hotel Occupancy Survey published by the National

Statistics Institute which is calculated as a ratio between the daily average of occupied rooms in a month and the total rooms available

Unemployment Rate controls for differences in personnel costs between cities. This variable was collected from the Economic Year Book published by la Caixa, which provides economic data at the municipal level. The unemployment rate is calculated as the number of unemployed people in the city over the potential labor force (population between 15 and 64 years old).

Finally, to control for unobserved effects associated with changes in our empirical setting across time, we include *Year Dummies* (year fixed effects).

3.3. Empirical analysis

The data are organized at the hotel level, so there are 998 hotels nested within 77 cities across five years. With multiple observations for each hotel we use a multilevel hierarchical model with random city effects (XTMIXED in Stata).

4. Results

Tables 1 and 2 display the descriptive statistics and correlations for the main variables in our study.

Tables 1 and 2 about here

Table 3 shows the regression analysis of Yearly Gross Profit per Room. The intra-class correlation coefficient is 0.2737, meaning that 27.37% of the variance is attributable to the city-level, with the remaining 72.63% attributable to individual hotel differences. We assessed the fit of the model by examining the deviance statistics and

found that the full model (deviance -19,667.18) was a significantly better fit than the model including the controls (deviance -19,739.16; $\chi 2$ [5] =71.98, p< .001).

Table 3 about here

In model 1 we included only the control variables. In model 2 we added the variable *Corporate Brand* to test Hypothesis 1. Consistent with this hypothesis, we found that the coefficient was positive and significant (β= 4,598.39 , p<0.01) suggesting that hotels that use a corporate brand have 4,598.39 euros greater yearly room profits per room compared to hotels that do not use a corporate brand.

In model 3 we included the interaction of C*orporate Brand* with the four hypothesized features of corporate brand as a strategic resource. In particular, we found a negative and significant coefficient of the interaction between *Corporate Brand* and the number of *Stars* (β=-6,838.55, p<0.01) suggesting that corporate brand has greater effect on profitability for hotels that compete in the low-quality segment, which provides support for Hypothesis 2. This hypothesis suggested that the positive effect of corporate brand on profits is stronger for the lower quality segment in which corporate brand can be more valuable.

The same model shows no significant moderation of the interaction with *Percentage of non-branded Hotels* in the city, therefore Hypothesis 3 is not supported. This hypothesis predicted that rarity (i.e. a higher percentage of non-branded hotels) strengthened the effect of the corporate brand on performance. However, it should be noted that the main effect of the *Percentage of non-branded Hotels* in the city shown in model 2 is negative and significant (β=-3,958.71, p<0.05), which suggests that higher rarity decreases the benefits of all hotels. We explore this unexpected finding in further analysis later on.

We also found a positive and significant coefficient of the interaction between Corporate Brand and the Brand's Age (β= 768.97, $p<0.05$), suggesting that the effect of the corporate brand on performance is stronger when the corporate brand is older and for that reason it is more difficult to imitate, which supports Hypothesis 4.

Finally, the coefficient of the interaction between Corporate Brand and the level of Vertical Integration was positive and significant (β= 15,526.77, $p<0.01$), confirming that hotels that are owned and managed by the same company are able to obtain higher profits from the use of a corporate brand, as suggested by Hypothesis 5.

4.1 Additional analyses

Unexpectedly, we do not find a moderation effect of rarity on the effect of corporate brand and performance. However, we find a significant main effect, which implies that a high level of corporate brand rarity decreases the performance of all hotels in the city, which is contrary to the RBT expectation that rare resources lead to greater performance.

We performed additional analyses to understand better the unexpected findings regarding the rarity of corporate brands. We explored an alternative conceptualization of rare resources based on how many other hotels have a corporate brand in the city and within a radius of two kilometers. To do so, we first obtained data on the zip codes of all hotels belonging to our initial database (43,172 observations) to determine the latitude and longitude of each of the hotels. Once these coordinates were obtained, we used the Stata command Geonear to calculate the number of hotels within a radius of two kilometers.

Table 4 shows the results for this analysis. We included as independent variable the total number of hotels that use the corporate brand in the same city and within a

radius of two kilometers. Model 1 shows a positive and significant effect of the number of hotels that use the corporate brand (β= 70.35, $p<0.01$) on hotel performance, which suggests that all hotels benefit from the presence of more hotels with corporate brand. Model 2 shows a positive and significant interaction effect of the number of hotels that use the corporate brand in the city on the effect of corporate brand and performance (β=98.81, $p<0.01$). Model 3 also shows a positive and significant effect of the number of hotels that use the corporate brand in a radius of two kilometers (β=97.34, $p<0.01$). Finally, Model 4 shows a positive and significant interaction effect of the number of proximate hotels that use the corporate brand on the effect of corporate brand on performance (β=301.35, $p<0.01$).

Table 4 about here

Thus, contrary to the initial expectation based on RBT, our results show that lower rarity, that is, more hotels using the corporate brand, enhances the extra profits associated with having a corporate brand. Two reasons may serve to explain these results. The first possible explanation is based on location benefits. Branded hotels are attracted to particular areas because of their unique conditions (i.e., hotels locate together along the beach where demand concentrates). In this case, the source of higher profits could be attributed to the attractiveness of the location. Thus, our measure of rarity based on the number of hotels could be picking up an attractive location, despite the city dummies and the control for central location within the cities.

A second explanation relies on agglomeration theory, which predicts that firms may receive benefits when more firms co-locate in the same area, triggering positive spillover effects. Several studies based on agglomeration theory have shown that higher number of firms with certain resources may increase the performance levels for all

neighboring firms (Canina, Enz and Harrison, 2005; Chung and Kalnins, 2001). For instance, Chung and Kalnins (2001) show that hotels located in rural markets obtain higher revenues per room when they are surrounded by a higher percentage of chain-affiliated hotels. Canina et al. (2005) found evidence of "differentiation spillovers" in the hotel industry. Differentiation spillovers exist when firms benefit from the investments of differentiated competitors that make a location more attractive. These authors found that hotels located in an area with a higher percentage of high-quality hotels are able to charge relatively higher prices.

Following this theory, branded hotels might reduce consumer search costs and contribute to differentiation spillovers, which might attract customers to the area, increasing the benefits of all hotels that are located in the same area.

To investigate which of these rationales may be driving our results, we performed further additional analyses. We included in the same regression the number of branded and the number of non-branded hotels separately. If a greater number of hotels is attracted to a specific geographic area because of its unique conditions, all hotels within the given location will be associated with higher profits regardless of whether they have a corporate brand or not. However, if the cause of the higher profits is due exclusively to the positive spillover effects of branded hotels, we will only observe a positive coefficient in the profit regression for the number of branded hotels, but not for non-branded hotels.

Table 5 shows the results for these analyses. Model 1 shows a positive and significant effect of the number of hotels that use the corporate brand (β= 90.69, $p<0.01$) on hotel performance, and a negative and insignificant effects of the number of hotels that do not use the corporate brand (β= -15.93, $p<0.1$), which suggests that hotels benefit from the presence of more hotels with corporate brand, but they do not benefit

from the presence of hotels without corporate brand. Model 2 shows no significant moderation between corporate brand and the number of hotels with and without corporate brand. Model 3 also shows a positive and significant effect of the number of hotels that use the corporate brand in a radius of two kilometers (β=93.87, $p<0.01$), while the effect is not significant for the number of hotels without corporate brand in a radius of two kilometers. Finally, Model 4 suggests a positive and significant interaction effect of the number of proximate hotels that use the corporate brand on the effect of corporate brand on performance (β=914.76, $p<0.01$) and a negative and partially significant effect on the number of proximate hotels without corporate brand (β=-230.56, $p<0. 1$). In conclusion, these results support the agglomeration benefits of co-location with hotels with corporate brand.

5. Discussion

Our study empirically shows that, in the hotel industry, corporate brand is an important resource associated with superior firm performance (Balmer and Gray, 2003). We further elaborate on how the required features for strategic resources from a resource-based view can be used to understand when hotels using a corporate brand may be expected to have greater profitability. Our findings confirm that the use of the corporate brand has greater impact on hotel profits per room when the corporate brand is more valuable for customers (i.e., for lower quality segment), when it is more difficult to imitate (i.e., older corporate brands) and, finally, when it is exploited through proper organizational governance mechanisms (i.e., hotels are vertically integrated).

We generally find support for RBT in our analysis of the corporate brand, but our results also provide novel insights with regard to the performance consequences of

hotel brands in terms of their rarity. Resource-based researchers suggest that only when a resource is controlled by a small number of firms, it is likely to be a source of competitive advantage. However, we found the opposite result. Our results show that rarity (i.e., high percentage of non-branded competitors) damages the profitability of all the hotels. When we explored an alternative conceptualization of rare resources based on how many hotels also have a corporate brand in the city and within a radius of two kilometers, we found that hotels that use the corporate brand benefit most from the presence of other hotels with corporate brand.

The agglomeration literature can help us to explain this result. Some firms possess resources that can contribute to increase demand, which can benefit nearby firms when we may expect spillovers. Brand affiliation is one of these resources. Because brands signal higher unobserved quality (e.g., safety of the area), branded hotels can reduce consumer search costs and in consequence, attract customers to the area. Once in the area, customers can compare and find another hotel that better fits with their preferences. This is consistent with previous work on agglomeration effects (Canina et al., 2005; Chung and Kalnins, 2001).

Our results contribute to this literature by showing that there is a clear agglomeration effect for the corporate brand, which increases the profits for the firms that compete nearby. Corporate brands are rooted deeply in the firm's history and have been developed over extended periods of time, which make them intrinsically specific to the company. Thus, many unique brands can co-exist and they are not negatively affected by other competitors developing their own brand. Moreover, as more hotels develop their brand as a strategic intangible asset, they can jointly contribute to increase the attractiveness of the area for customers.

In sum, our study suggests that some key ideas about resource scarcity from a resource-based view need to be reconsidered, at least for a particular type of resources which are intrinsically rare (i.e., corporate brand). We have shown that as more proximate competitors own these resources, the value of these resources can increase (i.e., greater value for customers), which increases their potential profitability. In our opinion, our findings regarding rare resources in the case of corporate brands make an important qualification to standard resource-based theory and future research may want to investigate to which other types of resources may also apply.

5.1. Managerial implications and limitations

The findings of this study also have practical implications for brand strategy. The empirical evidence provides clear recommendations for managers of the hotel industry regarding when they may want to develop the corporate brand (e.g., lower quality hotels, older brands, vertically integrated and when there is more presence of hotels using the corporate brand). These findings also provide some guidance to corporate managers about the circumstances for creating and exploiting their brands, especially the superiority of vertical integration for hotel management.

There are also several limitations in our study that we would like to highlight briefly. First, we should note that the generalizability of our conclusions to other industry contexts should be done with caution due to the nature of our sample. The hotel industry provides an excellent setting to investigate the effect of a corporate brand on local performance, but it also reduces its applicability to other industries, especially to those that do not offer experience goods where competition is localized. Second, very few hotels changed their corporate brand during the five-year period under investigation, so we could not study hotel performance before and after this decision.

Thus, our analysis is essentially based on between-unit effects and we cannot study whether performance issues motivated the decision to use the corporate brand in the first place. Despite these concerns, we do believe that our findings make a contribution to research on the relationship between strategic resources and performance.

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Table 1
Descriptives

Variable	N	Mean	SD
Yearly gross profit per room	998	2,183.38	5,362.07
Corporate brand	998	.04	.18
Stars	998	3.12	.75
Percentage of non-branded hotels in the city	998	.84	.12
Brand's age	998	28.89	16.09
Vertical integration	998	.88	.33
Chain	998	.18	.38
Historical Building	998	.13	.33
Parking	998	.54	.50
24 hour room service	998	.13	.34
Leisure services	998	3.95	2.84
Meeting rooms	998	.32	.47
Family rooms	998	.22	.42
Accessible facilities	998	.15	.36
Central location	998	.46	.50
Hotel's uniqueness	998	.14	.08
Occupancy rate	998	63.91	11.25
Unemployment rate	998	5.70	2.49

Table 2
Correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.Yearly gross profit per room																	
2.Corporate brand	.20 **																
3.Stars	.01	.36 **															
4.Percentage of non-branded hotels in the city	-.12 **	-.52 **	-.33 **														
5.Brand's age	-.08 **	-.06 **	-.04 **	-.04 **													
6.Vertical integration	.15 **	-.02	.06 *	-.10 **	-.01												
7.Chain	.11 **	.70 **	.46 **	-.47 **	.02 **	.06 *											
8.Historical Building	.13 **	.02 **	.09 **	-.03 **	-.06 **	.04	.00										
9.Parking	-.01	.05 **	.13 **	.01	-.03 **	.03	.06 **	-.00									
10.24 hour room service	.04	.08 **	.20 **	-.08 **	-.08 **	.03	.08 **	.10 **	.10 **								
11.Leisure services	-.07 **	.17 **	.49 **	-.12 **	.07 **	.01	.25 **	-.04 **	.21 **	.11 **							
12.Meeting rooms	.06 *	.21 **	.34 **	-.17 **	-.06 **	.05 *	.22 **	.10 **	.06 **	.15 **	.23 **						
13.Family rooms	.03	.01 **	.11 **	-.01	-.03 **	-.02	.03 **	.02 **	.03 **	.03 **	.20 **	.32 **					
14.Accessible facilities	.04	.18 **	.24 **	-.16 **	-.12 **	-.06 *	.16 **	.03 **	-.02 **	.09 **	.20 **	.43 **	.24 **				
15.Central location	.00	-.01 *	-.03 **	-.02 **	.08 **	.06 *	.02 **	.06 **	-.01	.03 **	-.10 **	-.10 **	-.09 **	-.10 **			
16.Hotel's uniqueness	.02	.28 **	.52 **	-.23 **	.03 **	.01	.34 **	.04 **	.22 **	.22 **	.51 **	.32 **	.18 **	.25 **	.06 **		
17.Occupancy rate	.14 **	.14 **	.24 **	-.35 **	.16 **	.06 *	.23 **	-.08 **	-.07 **	-.02 *	.26 **	.02 **	.01	.04 **	.04 **	.05 **	
18.Unemployment rate	-.08 **	.02 **	-.05 **	-.05 **	-.11 **	.10 **	-.04 **	.08 **	-.02 **	.09 **	-.13 **	.12 **	.02 **	.10 **	-.07 *	.02 **	-.27 **

* $p < 0.05$, ** $p < 0.01$*

Table 3
Multilevel regression analysis for yearly gross profit per room

	Model 1		Model 2		Model 3	
Intercept	3,246.62		3,086.32		3,691.76	
	(2,785.78)		(2,722.77)		(2,593.72)	
Stars	-341.81		-336.61		-277.70	
	(266.17)		(262.78)		(256.23)	
Percentage of non-branded hotels in the city	-3,941.76		-3,958.71	*	-4427.12	*
	(2,046.09)		(1,995.70)		(1,894.71)	
Brand's age	-6.04		5.35		5.10	
	(11.43)		(11.57)		(11.21)	
Vertical integration	1,944.26	**	2,167.01	**	1,755.47	**
	(497.08)		(494.04)		(492.20)	
Chain	1,153.27	**	321.70		242.62	
	(438.70)		(470.85)		(458.94)	
Historical building	1,720.27	**	1,453.71	**	846.79	
	(513.31)		(511.61)		(507.94)	
Parking	-862.28	*	-626.76		-638.77	
	(353.39)		(353.47)		(344.57)	
24 hour room service	1,138.79	*	1,298.41	**	1,404.96	**
	(492.64)		(488.36)		(478.08)	
Leisure services	-88.19		-109.26		-90.27	
	(81.54)		(80.67)		(78.91)	
Meeting rooms	684.51		738.47		903.99	*
	(408.71)		(404.89)		(395.60)	
Family rooms	496.31		456.57		514.52	
	(419.60)		(415.50)		(406.45)	
Accessible facilities	981.85	*	806.75		692.06	
	(477.18)		(473.75)		(466.89)	
Central location	-214.19		-286.05		-142.73	
	(465.55)		(460.50)		(449.32)	
Hotel's uniqueness	4,334.77		4,047.77		5,054.46	
	(3,125.74)		(3,093.77)		(3,024.26)	
Occupancy rate	41.94		36.67		32.94	
	(23.68)		(23.03)		(21.72)	
Unemployment rate	-202.78	*	-193.90	*	-189.21	*
	(98.59)		(97.94)		(94.82)	
Corporate brand			**4,598.39**	**	1,232.54	
			(1,015.58)		(18,031.46)	
Corporate brand x Stars					**-6,838.55**	**
					(2,343.65)	
Corporate brand x Percentage of non-branded hotels					**1,4631.39**	
					(18,236.08)	
Corporate brand x Brand's age					**768.97**	*
					(314.56)	
Corporate Brand x Vertical Integration					**15,526.77**	**
					(4,231.48)	
Year dummies	Yes		Yes		Yes	
Log likelihood	-9,869.58		-9,859.52		-9,833.59	
n (hotel-year observations)	998		998		998	
N (cities)	77		77		77	

* $p < 0.05$, ** $p < 0.01$; Standard errors in parentheses beneath coefficients

TABLE 4
Multilevel regression analysis for yearly gross profit per room based on number of branded competitors

	Model 1	Model 2	Model 3	Model 4
Intercept	818.58	737.42	217.69	355.95
	(1,546.25)	(1,532.11)	(1,700.14)	(1,658.18)
Stars	-352.67	-359.24	-350.79	-381.65
	(253.48)	(250.95)	(260.45)	(256.64)
Brand's age	1.57	1.80	2.75	2.66
	(11.05)	(10.94)	(11.46)	(11.27)
Vertical integration	2,048.96 **	1,844.68 **	1,999.78 **	1,797.87 **
	(482.09)	(479.38)	(494.95)	(489.85)
Chain	378.50	348.47	455.34	414.18
	(459.79)	(455.27)	(467.50)	(461.63)
Historical building	1,307.81 **	1,163.08 *	1,308.81 *	1,151.90 *
	(502.99)	(499.02)	(511.66)	(506.16)
Parking	-593.45	-587.15	-603.49	-589.15
	(347.18)	(343.67)	(351.64)	(347.15)
24 hour room service	1,251.17 **	1,143.05 *	1,305.41 **	1,176.94 *
	(479.44)	(475.18)	(485.01)	(479.51)
Leisure services	-100.55	-74.81	-138.51	-107.48
	(78.81)	(78.23)	(79.42)	(78.59)
Meeting rooms	891.41 *	917.25 *	855.39 *	906.81 *
	(396.21)	(392.28)	(400.54)	(395.71)
Family rooms	430.83	518.36	446.63	546.19
	(409.63)	(405.92)	(412.46)	(408.15)
Accessible facilities	840.27	955.38 *	846.33	992.11 *
	(464.86)	(460.85)	(471.50)	(466.35)
Central location	-312.69	-155.77	-308.58	-163.67
	(450.49)	(447.20)	(456.60)	(451.91)
Hotel's uniqueness	3,707.30	4450.37	4,721.29	5,620.22
	(3,041.13)	(3,014.72)	(3,084.12)	(3,049.31)
Occupancy rate	8.66	9.96	22.03	18.74
	(19.80)	(19.63)	(22.82)	(22.10)
Unemployment rate	-149.98	-139.37	-151.77	-133.44
	(88.35)	(87.71)	(96.72)	(94.87)
Corporate brand	4,232.76 **	47.89	4,428.44 **	-1,207.34
	(997.79)	(1,348.90)	(1,011.82)	(1,528.49)
Number of branded hotels in the city	**70.35** **	**62.07** **		
	(11.68)	(11.75)		
Corporate brand x Number of branded hotels in the city		**98.81** **		
		(21.68)		
Number of branded hotels in a radius of 2 Km.			**97.34** **	**94.55** **
			(27.18)	(26.13)
Corporate brand x Number of branded hotels in a radius of 2 Km.				**301.35** **
				(61.74)
Year dummies	Yes	Yes	Yes	Yes
Log likelihood	9,851.04	9,840.76	9,855.57	9,843.86
n (hotel-year observations)	998	998	998	998
N (cities)	77	77	77	77

* $p < 0.05$, ** $p < 0.01$; Standard errors in parentheses beneath coefficients

TABLE 5
Multilevel regression analysis for yearly gross profit per room based on number of branded and number of non-branded competitors

	Model 1		Model 2		Model 3		Model 4	
Intercept	359.98		271.65		192.17		567.79	
	(1,567.03)		(1,550.32)		(1,714.78)		(1,648.41)	
Stars	-357.71		-358.04		-349.29		-388.04	
	(253.20)		(250.53)		(260.81)		(255.84)	
Brand's age	4.02		4.12		2.62		3.22	
	(11.12)		(11.00)		(11.58)		(11.35)	
Vertical integration	2,081.98	**	1,825.30	**	2,000.15	**	1,681.59	**
	(481.81)		(481.41)		(495.05)		(492.00)	
Chain	408.19		385.13		457.68		416.78	
	(459.61)		(454.69)		(467.87)		(460.93)	
Historical building	1,334.27	**	1,191.08	*	1,304.65	*	1,168.69	*
	(502.71)		(498.24)		(512.86)		(505.44)	
Parking	-605.88		-609.74		-603.66		-611.00	
	(346.76)		(343.13)		(351.67)		(346.40)	
24 hour room service	1,263.03	**	1,169.80	*	1,306.61	**	1,186.58	*
	(478.84)		(474.42)		(485.40)		(478.82)	
Leisure services	-102.16		-78.76		-137.83		-114.26	
	(78.73)		(78.11)		(79.50)		(78.28)	
Meeting rooms	836.24	*	848.38*	*	857.23	*	878.88	*
	(396.90)		(392.78)		(401.52)		(395.98)	
Family rooms	461.72		543.65		445.40		547.06	
	(409.38)		(405.44)		(413.02)		(408.17)	
Accessible facilities	826.94		923.90	*	842.35		978.28	*
	(464.27)		(460.29)		(472.73)		(467.50)	
Central location	-292.03		-126.07		-309.32		-143.08	
	(449.92)		(446.40)		(457.10)		(451.31)	
Hotel's uniqueness	3,928.99		4601.89		4,692.55		5,704.14	
	(3,039.25)		(3,011.67)		(3,094.21)		(3,054.73)	
Occupancy rate	23.60		26.17		21.97		20.04	
	(21.50)		(21.28)		(22.88)		(21.70)	
Unemployment rate	-168.50		-159.89		-149.72		-143.46	
	(89.28)		(88.38)		(99.40)		(96.91)	
Corporate brand	4,212.92	**	1,968.37		4,408.42	**	2,580.28	
	(996.63)		(2,407.30)		(1,027.91)		(2,608.44)	
Number of branded hotels in the city	**90.69**	**	**82.23**	**				
	(16.33)		(16.28)					
Number of non-branded hotels in the city	**-15.93**		**-16.27**					
	(8.89)		(8.81)					
Corporate brand x Number of branded hotels			**229.84**					
			(133.20)					
Corporate brand x Number of non-branded hotels			**-88.27**					
			(89.06)					
Number of branded hotels in a radius of 2 Km					**93.87**	*	**114.53**	**
					(41.80)		(40.05)	
Number of non-branded hotels in a radius of 2 Km					**1.59**		**-9.83**	
					(14.91)		(14.49)	
Corporate brand x Number of branded hotels in a radius of 2Km							**914.76**	**
							(345.58)	
Corporate brand x Number of non-branded hotels in a radius of 2 Km							**-230.56**	
							(129.48)	
Year dummies	Yes		Yes		Yes		Yes	
Log likelihood	-9,849.44		-9,838.48		-9,855.57		-9,841.99	
n (hotel-year observations)	998		998		998		998	
N (cities)	77		77		77		77	

* $p < 0.05$, ** $p < 0.01$; Standard errors in parentheses beneath coefficients