



## **Master Thesis**

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**Title: Hotel chain's competitive strategy and standardization:  
evidence from Majorca**

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# **Hotel chain's competitive strategy and standardization: evidence from Majorca**

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## **Abstract**

Chain operation, with unified management, same productive process and identical objectives, is a specific form of organization. In this paper, we analyze the competitive strategies of the hotel chains in Majorca. The data consists of 1525 hotel establishments with basic information about star, quality, size, etc., and we use quantitative analysis to test which is the market competitive positioning of the hotel chains compared to that of stand-alone establishments, while also analyzing their standardization strategy. The results show that hotel chains supply better quality than stand-alone establishments (we haven't found a positive relationship between hotel chain size and quality). From a general view, that hotel chains in Majorca tend to apply a lower diversified strategy in terms of size and quality than independent ones, and with regards to standardization (internal diversification) inside hotel chains, we see that comparing to low quality hotel chains, high quality hotel chains tend to apply a low diversified strategy in dimensions of size and quality (that is, a higher degree of standardization).

Keywords: hotel chain, competitive strategy, product differentiation

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## **1. Introduction**

Chain operation, is a form of business organization in which firms are organized with unified brand, management or concession, and they share together benefits of economies of scale of this business organization. As the world continues to accelerate economic integration process, there has been an increasing importance of chains (multi-store firms) in many industries of the economy, e.g., Mercadona, Erosky, Wal Mart as supermarkets, Sol Melià and Barceló as hotel chains; Tous in jewelry, McDonald's and Burger King as two fast food chains; Francisco, Louis David, Llongueras and EasyCut as hairdressers chains. It's obvious that chain management has become a widely-used form of operation and organization especially in retail market and its business scope covers the entire commodity circulation and service sector. Among all those traits that define chain enterprises, brand, standardization and culture are three main parts that are affiliated inside a chain. Brand is the core and guarantee of chains, to some extent only by enlarging the brand effect can chain firms get rapid development; standardization is a principal feature of chains in order to protect firms' minimum low-cost operation. This is the premise of efficient operation of large-scale mainly in distribution and procurement sectors while culture is the highest level included in chains, the participation spirit and sense of belonging to firm value both play a considerable role in the expansion of chain enterprises.

Despite the euro zone crisis that started in 2011, Spanish hotel market, where hotel chains and stand-alone establishments both abound has proven to be resilient when compared to other economic sectors. Since late seventies, the preliminary Spanish hotel chains appeared dynamically, there has been a significant increase in the development of hotel groups showing the advantage of this chain operation. Large Spanish hotel chains, in order to expand their scale of operation, seized quickly the hotel sector in many big cities through different methods and looked forwarding to obtaining economies of scale, which in definition, are the cost advantages that enterprises obtain due to size, with cost per unit of output generally decreasing with increasing scale, as fixed costs are spread out over more units of output. Apart from

the reduction of cost like repeated advertising cost in firm's side, hotel chains also help consumers to reduce search costs. Ingram(1996) argues that the need for brands is particularly acute; with travelers often not being repeat customers, hotels have little incentive to provide good service and therefore brands assist hoteliers to provide credible commitments to potential customers. Since chain affiliation is like a signaling mechanism for quality, brand can serve as a credible signal, so it's easy for hoteliers to get close to target market and understand clients' needs, meanwhile contributes to maximizing the possibility of gathering consumers. Another benefit of hotel chains is that sharing information resources can reduce operational risks. Knowledge spillover flows more freely to members within the same chain than to unaffiliated enterprises while this knowledge may be production enhancing, and it may also improve product quality (Epple,1995). An important advantage is you can create information by using chain of phone or resource sharing system, as well as establish central reservation system and free reservation calls. Each hotel can share between themselves rooms' database and clients' information files. Through analysis of customers' information resources, hotel chains can effectively stabilize flow of customers and reduce further operational risks.

The objective of this paper is to study the competitive strategies of hotel chains, including cost leadership strategy, differentiation (quality) strategy, etc. In comparison with independent establishments and other hotel chain competitors, each hotel chain may choose either a low cost positioning or a high quality positioning, we can deem it as external differentiation. Since there are pros and cons of each, it remains an empirical issue which is worth being tested. A hotel chain positioning in differentiation (quality) strategy may have more stars, and a large number of services supplied. On the other hand, a hotel chain positioning as a cost leader, would have few stars, few services supplied. We also try to analyze the degree of standardization (with regards to stars, services, etc.) inside hotel chains.

This paper applied quantitative analysis to analyze the relevant data about hotel chains in Majorca of Spain. It examines not only external differences between stand-alone establishments and hotel chains, but also issues of diversity or

standardization within hotel chains. We test questions such as is there significant difference in quality between independent hotels and chain hotels? Does larger hotel chain size mean higher quality? As a chain is composed of similar establishments, do they follow a high standardization or no standardization strategy? A potentially interesting question is: which chains standardize more or less, those of higher quality (3/4/5 stars), or those of lower quality (1/2 stars)? After we test the dataset of hotels in Majorca in STATA , the results show that hotel chains have better quality than stand alone establishments, but we haven't found a positive relationship between hotel chain size and quality; in terms of internal diversification, same to our hypothesis, we see that comparing to low quality hotel chains, members of high quality hotel chains tend to apply a low diversified strategy in dimensions of size and quality.

The paper is divided into several parts. The first is the introduction about chain enterprises and hotel chains in Spain, with literature review, the second part is an overview of the main strategic issues surrounding hotel chain strategy, then I develop expectations mainly from external and internal differentiation for my empirical research about hotel chain strategy in the island of Majorca. Next is data and methodology. Results and discussion follow. The final part is conclusion about implication and some recommendations.

### Related literature

Hotel chains, with unified management, same productive process and identical objectives, are specific form of organization. According to Catalina Vacas Guerrero et al. (2004), chains consist of a group of hotel establishments, unconditioned as to number, category, nationality and explicit motivations; all the hotels in the chain participate in the same production project, although each element of the chain may have distinguishing features. Besides, there will be only one management team, specialized and well informed, that will direct, coordinate and control the productive process as a whole. As to objectives, they will include the achievement of greater profitability and stability for the firm, a situation of empowerment and control, as well as prestige in both national and international markets.

Since 1950, Kemmons Wilson passed the right to use the name of Holiday Inn and establish the national reservation network system, as well as fully utilized the concept of association, he created methods of segmentation and expansion of markets through spillover of technology and experience curve effect. In 1979, Tauber first proposed theory of brand extension and analyzed later from various angles the effect and value of brand extension, it has now become a mature business strategy. In the process of grouping, management of contracts, asset management, leasing, franchising, strategic alliances and other basic modes have been formed gradually.

Wei Xiaolan (1999) held the point that chain management requires a unified management model of hotels as well as a unified standard in the market, forming a high degree of consumer trust; a unified brand, through branding to facilitate greatly consumers and a unified hotel sales and organizational networks. The goal of hotel chain management is to obtain a higher operational efficiency, create uniqueness, manage risk aversion and learn various skills.

Colin Johnson(2002) argued that it is considered useful to attempt to establish the type of diversification for those companies belonging to a group and attempt to ascertain if the group had followed the policy adopted by many companies of diversifying into either related sectors (such as travel and tourism) or into unrelated sectors (such as industrial products, construction and information technology).

Jones & Pizam (1993) stressed that chain hotels have advantage of hiring many expertises that can effectively implement the marketing strategies gaining optimum profit by promoting their product and services, while Gray & Liguori (2003) said that the independent hotels have drawback of restricted budget and availability of expertise on marketing.

Chung and Kalnins (2001) find that smaller hotels and independent hotels do better in markets populated by more large and chain affiliated hotels in Texas. This is related to agglomeration effects, by agglomeration, the likelihood of consumer's visitation increases, particularly in times of excess demand, hotel managers have realized the benefits of agglomeration for sharing customers(Jung and Kalnins, 2001)

## **2. Hotel chain strategy**

From Porter's opinion, quality is a strong competitive weapon and a very critical corporate priority that can help chain and independent organization to edge over the competitors. Based on his studies, a central issue of competitive strategy is to determine the relative position of enterprises in the industry, which determines whether the profitability is above or below the industry average. A well-positioning enterprise can get a higher rate of return, however, in order to obtain this goal, the core is a sustainable competitive advantage in which the key lies in right competitive strategies, that help respond well to the five industry environment factors. The strategies are mainly of two types: cost leadership strategy and differentiation strategy.

### **Cost leadership strategy**

This strategy explains the chain winning market share by attracting cost-conscious or price-sensitive customers which is achieved by setting the lowest prices in the target market segment, or at least the lowest price to value ratio (price compared to what customers receive). To succeed at offering the lowest price while still get profits and a high return on investment, the enterprise should have ability to operate at a lower cost than its rivals. There are three main ways to achieve this. The first method is achieving a high asset turnover. In service industries, this may mean for example a restaurant that turns tables around very quickly. In manufacturing, it will involve production of high volumes of output. These approaches mean fixed costs are spread over a larger number of units of the product or service, resulting in a lower unit cost, i.e. the firm hopes to take advantage of economies of scale and experience curve effects, which are conditions to carry out the cost leadership strategy. The second dimension is achieving low direct and indirect operating costs. This is achieved by offering high volumes of standardized products, offering basic no-frills products and limiting customization and personalization of service. Production costs are kept low by using fewer components, using standard components, and limiting the number of models produced to ensure larger production runs. The third dimension is



control over the supply/procurement chain to ensure low costs, achieved by bulk buying to enjoy quantity discounts, squeezing suppliers on price, instituting competitive bidding for contracts, working with vendors to keep inventories low using methods such as Just-in-Time purchasing or Vendor-Managed Inventory.

### **Differentiation strategy**

Differentiate the products in some way in order to compete successfully. A differentiation strategy is appropriate where the target customer segment is not price-sensitive, the market is competitive or saturated, customers have very specific needs which are possibly under-served, and the firm has unique resources and capabilities which enable it to satisfy these needs in ways that are difficult to copy. These could include patents or other Intellectual Property (IP), unique technical expertise (e.g. Apple's design skills or Pixar's animation prowess), talented personnel (e.g. a sports team's star players or a brokerage firm's star traders), or innovative processes. Successful brand management also results in perceived uniqueness even when the physical product is the same as competitors. Conditions of implementation of differentiation strategy are: (1) strong research and development capability (2) good leading prestige of quality of goods, technology or services (3) long history in this industry (4) strong marketing capability (5) good coordination between various departments (6) favorable material conditions to attract talented people. The benefits of implementing a differentiation strategy are: (1) build customers' awareness and trust for product or service, reduce the price sensitivity of changes in product or service (2) customers' trust and loyalty for trademark form a strong industry barriers to entry (3) differentiation strategy which produces a high marginal revenue enhances the enterprises' bargaining power (4) make customers lack of compare in product selection, reducing the bargaining power of customers (5) help to build customer trust making difficult for substitutes to compete. Risk of differentiation strategy are: (1) chains may have higher service costs (2) customers will become more savvy and reduce the requirements for differentiation of product and service (3) imitations of competitors narrow the possibility for customers to feel product differentiation, which is occurring as a universal phenomenon with the mature of industry. In conclusion, the

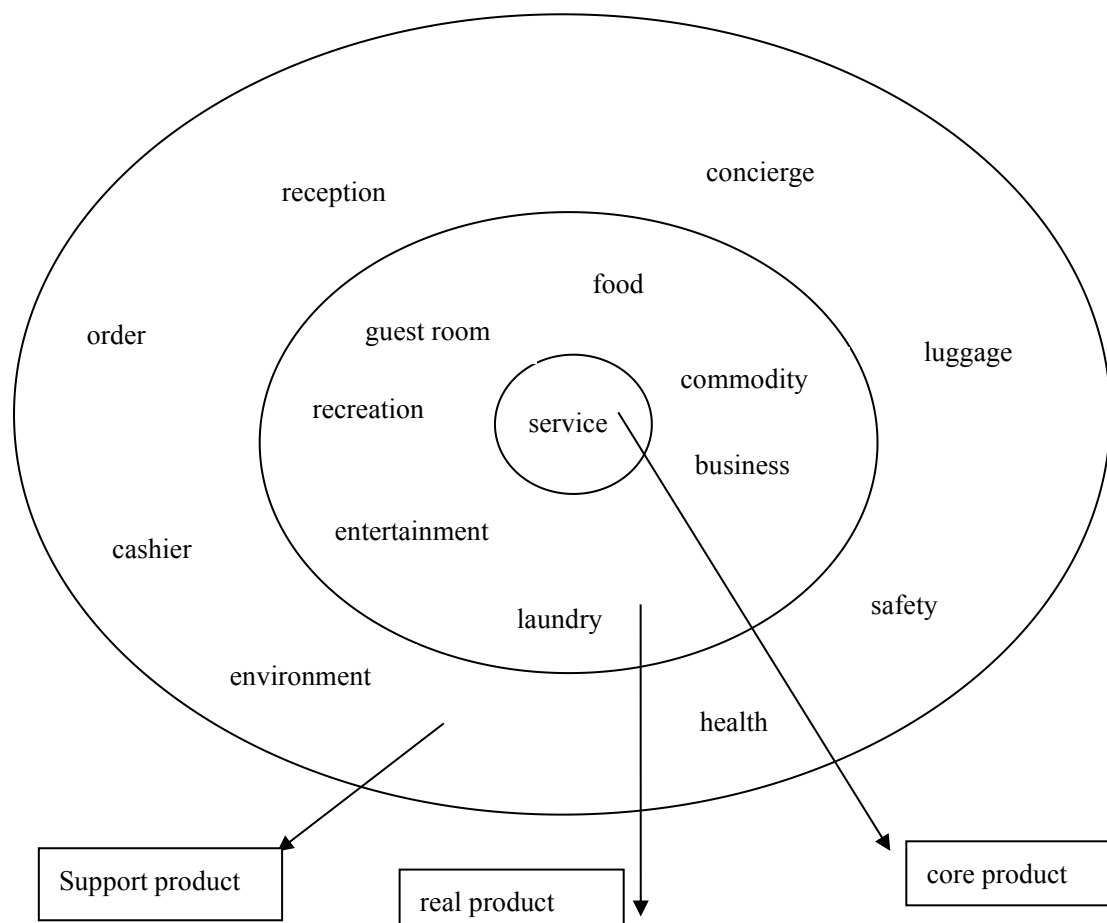
specific measures to carry out differentiation strategy may lie in the reshape of chain's own different aspects and images, for example, distinctive merchandise mix, unique shopping experience or upmanship services.

Apart from the main two competitive strategies, there is another called focus strategy, this dimension is not a separate strategy per se, but describes the scope over which the company should compete based on cost leadership or differentiation. The firm can choose to compete in the mass market (like Wal-Mart) with a broad scope, or in a defined, focused market segment with a narrow scope. A focused strategy should target market segments that are less vulnerable to substitutes or where a competition is weakest to earn above-average return on investment. In adopting a broad focus scope, the principle is the same: the firm must ascertain the needs and wants of the mass market, and compete either on price (low cost) or differentiation (quality, brand and customization) depending on its resources and capabilities.

In this paper, we study several questions in a given industry in which chains are becoming everyday more important, namely, the hotel industry. We mainly focus on competitive strategy, and standardization which is related to these competitive strategies. More specifically, because differentiation strategy covers many aspects, such as target market differentiation on hotel choice, differentiation management of hotel product, differentiation in marketing methods, etc. we want to find evidence about this strategy relating to hotel product.

Product strategy is the primary business marketing strategy, and also a foundation of a variety of other strategies. Hotel product is a combination of tangible products and intangible products which meet the material and spiritual needs of customers, it is a comprehensive concept, a composition of various specific products. Among all, hotel service is the most indispensable, the most basic and important product that hotel offers. Whether accommodation, meals, purchase or recreation, entertainment are inseparable from service. The famous American hotel manager Ellsworth M Statler once said: “ Hotel only sells one thing, that is service. Who provides good quality services, who can thrive; who provides inferior service, who will decline.” Thus, hotel service is the most basic and important core product. On

one hand, it can be used with a variety of tangible products together to constitute room service, restaurant service, goods service and recreation or entertainment service, on the other hand, it can be in the form of direct labor, that the service itself to meet consumers' demand for consumption, such as hotel doorman service, guide service and inquiry service; also combined with reservation, reception, luggage, safety, health, environmental maintenance, to provide support for tangible services. Service has both value of use and exchange and the form of manifestation is various. All exchange of product in hotels are inseparable from service, besides, the product marketing strategy is also based on this, so it is the hotel's core product. Thus, we apply service as our important variable of later research.



### 3. Hypotheses

Cost leadership and differentiation are two basic strategies in Porter's typology, despite that there are criticisms and limitations of his model, it has provided valuable

tools that enable managers to analyze the competitive market environment and to sketch an effective strategy.

From the view of hotel chains, cost leadership strategy and differentiation (quality) strategy are two sides of coins that they will face in the process of expansion, this can also be considered as external differentiation relates to the issue of whether they tend to have a low cost or a high quality positioning, which are two good signals to attract consumers, forming part of our competitive strategy to compete with independent hotels and other hotel members. The primary task of hotel chains is to distinguish different needs of different customers and to choose the right product positioning on the basis of market segmentation. As hotel chains have network of hotels across regions and strong capital access compared to independent establishments, they are able to capture a huge target market and have advantage to increase their segment and size of company. Chain hotels also surplus advantage because of their national and international advertising, in addition, they can raise financial funds through stock sales or mutual funds. Hence, we propose that hotel chains can create better condition of quality than independent establishments, the larger a hotel chain, the better its quality. Thus, we state the following hypotheses:

*H1: A hotel chain is composed of hotels of higher 'quality' than that of stand-alone establishments on average.*

*H2: The larger a hotel chain, the higher its quality.*

Standardization (or diversity vs. focus) addresses the degree of internal differentiation or diversity of the chain. Whatever market positioning the chain follows, it also has to decide the degree of “internal diversity”. Simplifying, a chain can follow a ‘low diversity’ (all establishments of the chain are alike, in the relevant dimensions) or a ‘high diversity’ strategy (establishments of the chain differ substantially in the relevant dimensions – location, quality of the service or good, size). According to economies of scale or learning economies, hotels within the same chain can get knowledge spillover effect and more profits if hotels are alike in the

same chain. This kind of standardization helps hotels to reduce cost by limiting customization and personalization, also simplifying management process. Nowadays many economy hotel chains are applying this cost leadership competitive strategy by offering standardized and less hotel products than high quality hotel chains. These hotels are positioning in cost leadership strategy with few stars, few services supplied and high standardization. However, there is also the advantage of diversification to reaching a wider segment of population. Because of the strong capital access, many hotel chains do make a good impact on global trend by carrying out this diversification strategy with regards to hotel services, hotel products, etc, but for some high quality hotel chains, brand reputation is a considerable element relating to the advantage of standardization. Hotels in the five-star or higher category place substantial strategic focus in the area of service standardization and performance, compared with hotels in the low category. This is not surprising given the view that hotels with higher ratings rely upon their reputation for service and customer satisfaction to be profitable (Mullins, 1996) and are likely to demonstrate a stronger preference for providing and improving their standards and level of performance, so it is probably true that the brand-reputation effect of high quality chains is strong, which makes them to standardize more. Specific research questions are as follow. Then, we state our third hypothesis:

*H3: High quality hotel chain standardize quality to a larger extent than low quality chains.*

## **4. Data and Methodology**

We do the analysis in the hotel industry in Majorca, one of the leading tourist destinations of the Mediterranean and, accordingly, of the whole world. The database consists of 1525 hotel establishments in Majorca, which includes: general data (name, type, category, group, address, Web, e-Mail, number of beds, etc), location (distance to beach, medical center, bus stop, city of Palma, airport and golf course, etc),

building information (built year, refurbished year, floors, garden area), services (money exchange, car rental, pets, medical assistance, restaurant, bar, conference room, cots, nursery, room service, handicapped facilities, internet), entertainment(TV Room, animation programs, out-door swimming pool, in-door swimming pool, sauna, jacuzzi, gymnasium, solarium, tennis courts, playground), guest room(T.V., Safe, heating, air conditioning, beach towels), apartment (T.V., safe, heating, air conditioning, microwave oven, refrigerator, washing machine, kitchenette, oven). These services are labeled either “1” or “0” if they are offered by hotel or not.

For our purpose to test H1: A hotel chain is composed of hotels of higher quality than that of stand-alone establishments (on average). We take stars(1 to 5) and number of services supplied as measure of quality, the latter is calculated by adding up the amount of services that each hotel can provide. We first check some descriptive statistics, then we examine the respective relationship between stars and hotel chain, size, which we measure by taking logarithm of number of beds. Here the ordinal logit model is used because the dependent variable “stars” is of ordinal response.

To test H2:The larger a hotel chain, the higher its “quality”, we first measure the size of hotel chains, that is the number of hotels a chain contains, we set the a cut-off point as a benchmark and see the descriptive statistics of quality for all chain establishments, then we also estimate the ordinal logit regression to observe the relationship between chain size and quality. In order to test the hypothesis more detailedly, we examine the difference of quality between small chains and large chains for only local chains, for a more precise result we screen out those small international hotel chains to check the result.

As to H3, we mainly check the coefficient of variation of size, stars and number of services of both stand alone establishments and hotel chains, then we examine the dispersion of variables. We get each coefficient of variation for each hotel chain in dimensions of size, stars and number of services, and compare between high quality and low quality chains. Then we run the regression inside 62 hotel chains to see if the higher the average stars they have, the higher the coefficient of variation of each dimension, which means high diversification or low standardization. The goal is to

see if there is a distinction between high quality hotel chains and low quality hotel chains.

## 5. Empirical Results

First , we carry out some descriptive statistics. Table 1 shows that variables of stars, size(amount of beds), number of services supplies, chain size and type of establishments are summarized. Among 1525 establishments in Island of Majorca, the data consists of 62 hotel chains(in total 418 hotels) and 1107 stand-alone establishments, which respectively occupies 27.41% and 72.59% of the sum. Since only 1312 establishments in our dataset have their star rating, we often exclude those hotels that don't have stars while we are analyzing about this variable later in our study. The mean of hotel stars is 2.52 while the mean of number of beds in dataset is 188 with a wide range from 2 to 4192, 11 missing values. Among all 36 services offered by hotels, the maximum lies in the hotel that offers 34, the average number is 13. In our data set, it has been calculated the number of hotels a chain contains, the range is 1 to 22. On average, a hotel chain is composed of 11 establishments.

**Table 1** Descriptive statistics of stars, beds, number of service supplied, chain size of all establishments

	mean	st.d	min	max	observation
stars	2.52	1.04	1	5	1312
beds	188.16	246.00	2	4192	1514
#of services	12.58	7.73	0	34	1525
chain size	11.07	6.44	1	22	418

Then we make a compare between hotel chains and independent establishments; for instance, about the stars. As explained above, we drop those non star establishments because it is sure that they don't offer comparative quality as opposed to hotel chains. Thus among 1312 establishments that have stars, independent establishments are mainly focused in 1 to 3 stars while 3 stars and 4 stars occupy the majority of hotel chains.

**Table 2** Descriptive statistics of stars by independent hotels and chain hotels

	1 star	2 star	3 star	4 star	5 star	total
Independent	274	257	259	91	13	894
Chain hotel	8	50	244	105	11	418
total	282	307	503	196	24	1312

From Table 3, we get our first conclusion of H1, the chart illustrates the mean value of size, stars and number of services by hotel chains and independent ones. It's obvious to see that chain hotels have higher rating, bigger size and more services than those of independent establishments. A ttest (apendix1) reveals that the difference in aspect of stars and number of services between independent establishments and hotel chains is significant. H1 is accepted in the first step. We are also able to test our hypothesis by running the ordinal logit model, showing in Table 4, the dependent variable is stars, all independent variables have a statistically significant coefficient, same to our prediction that chain hotels own better quality. The logit model demonstrates that if the level of chain increases one unit, the possibility that one or more units of increase of stars will be  $0.4(e^{0.34}-1)$ .

**Table 3** Descriptive statistics of size, stars, number of services by independent and hotel chains

## Independent establishments

	mean	Std, dev	min	max	observation
size	4.38	1.00	1.79	7.70	888
stars	2.23	1.04	1	5	894
#of services	10.98	7.43	0	34	894



## Hotel chains

	mean	Std, dev	min	max	observation
size	5.73	0.73	3.00	8.34	418
stars	3.15	0.73	1	5	418
#of services	18.53	5.53	4	31	418

**Table 4** Ordinal logit model of stars on size and chain for all establishments

Dependent variable: stars

Variables	Model1
Size	0.47*** [0.07]
Chain	0.34** [0.14]
# of services	0.18*** [0.01]
Observations	1306
Pseudo R <sup>2</sup>	0.23

<sup>a</sup> Standard errors are reported below the parameter estimates in brackets

\*\*\*correlation significantly different from zero at the 1% level

\*\*correlation significantly different from zero at the 5% level

\*correlation significantly different from zero at the 10% level

## Hypothesis H2

For testing H2, Table 5 shows information about chain size. Among all 62 hotel groups in the dataset, there are 12 groups that each owns 3 hotels, 8 hotel groups that each has 2 hotels, 8 groups each with 3 establishments, ranking the first and second place, showing the small chain size in hotel industry in Majorca. Among all, the largest hotel chain in Majorca is Grupotel which contains 22 members, followed by Hotelera Saint Michel, Iberostar and Hotetur Club. Table 6 compares stars in different chain size, as we set 6 as benchmark of chain size, we find chains that owns 6 or more than 6 establishments don't have better quality than those small chains. Table 7 presents ordinal logit results for stars on the quality which we measure the same as before by using stars. Although it is statistically significant at 1% level and the coefficient is signed positive, it is quite near to 0 so it does not seem to hold H2, the

explanation may be that here we only take sample of establishments in Majorca. There are many hotel chains expanding their scale abroad, like Barceló which contain large number of hotels abroad and with higher quality.

To test the hypothesis in a better manner, we screen out only the local hotel chains in Majorca, showing in Appendix3. 15 hotel groups have their presence only in Majorca, in total 111 establishments. By analyzing respectively star rating of the local chains and inter/national chains in table 8 and 9, we compare small chains with large local chains plus large international chains and find that small inter/national hotel chains is indeed influencing the anterior result as the mean of stars of them is very high, however, these international hotel chains have more presences apart from Spain, hence next we get rid of those the so-called small international hotel chains in our present dataset and run the ordinal logit model again. Table 10 shows the relationship, the coefficient of chain size is 0.07, a little bit higher than before but still almost zero. The result shows that chain size is not an important attribute of quality, but size and number of services are.

**Table5** Descriptive statistics of chain size in 62 hotel groups

Chain's number of establishments in Majorca	Number of hotel chains
1	3
2	8
3	12
4	8
5	4
6	3
7	4
8	5
9	1
10	1
11	2
13	2
14	4
19	1
20	2
21	1
22	1
total	62

**Table6** Descriptive statistics of stars by small and large chains of 418 establishments  
chain size<6

variable	mean	Std.dev	min	max	observation
stars	3.17	0.82	1	5	107

chain size>=6

variable	mean	Std.dev	min	max	observation
stars	3.14	0.70	1	5	311

**Table 7** Ordinal logit model of stars on size, chain size and number of services of 418 chain establishments.

Dependent variable: stars	
Variables	Model2
Size	0.43*** [0.15]
Chain size	0.04*** [0.02]
# of services	0.23*** [0.02]
Observations	418
Pseudo R <sup>2</sup>	0.18

<sup>a</sup> Standard errors are reported below the parameter estimates in brackets

\*\*\*correlation significantly different from zero at the 1% level

\*\*correlation significantly different from zero at the 5% level

\*correlation significantly different from zero at the 10% level

**Table 8** Descriptive statistics of stars for only local hotel chains

chain_size	freq.	Mean of quality for each size of hotel chain
1	1	4.0
3	1	2.7
4	1	3.5
5	3	2.7
6	1	3.2
7	3	3.0
8	2	2.9
11	1	2.5
13	1	3.5
21	1	2.9
Total	15	3.1

**Table 9a** Descriptive statistics of stars by small and large local chains

chain size&lt;6

Variable	Mean	Std. Dev.	Min	Max	Obs
stars	2.91	0.90	1	4	23

chain size&gt;=6

Variable	Mean	Std. Dev.	Min	Max	Obs
stars	2.97	0.63	1	4	88

**Table 9b** Descriptive statistics of stars by small and large inter/national chains

Chain size&lt;6

Variable	Mean	Std. Dev.	Min	Max	Obs
stars	3.24	0.79	1	5	84

Chain size&gt;=6

Variable	Mean	Std. Dev.	Min	Max	Obs
stars	3.21	0.71	1	5	223

**Table 10** Ordinal logit model of stars on variables of size, chain, chain size of 334 hotel chain establishments(excluded small inter/national chains)

Dependent variable: stars

Variables	Model3
Size	0.39** [0.18]
Chain size	0.07*** [0.02]
# of services	0.26*** [0.03]
Observations	334
Pseudo R <sup>2</sup>	0.22

<sup>a</sup> Standard errors are reported below the parameter estimates in brackets

\*\*\*correlation significantly different from zero at the 1% level

\*\*correlation significantly different from zero at the 5% level

\*correlation significantly different from zero at the 10% level

### Hypothesis H3

A first approach to test H3 on standardization is Table11, by checking coefficient of variation for both independent establishments and hotel chains, size, stars and number of services for hotel chains are all smaller than stand alone establishments,

indicating the quality and size of chains are more focused. Hotels chains are more alike and share similar level of scale. From a general view, that hotel chains in Majorca tend to apply a lower diversified strategy in terms of size and quality than independent ones, the reason may be that hotel chains hope to create a unique image that can lead to increased efficiency through branded marketing efforts and cost savings on a larger scale by using standardization operation, among other things, from customer-oriented view, most tourists that come to Majorca for holidays or conferences, as they tend to familiarize with (and likely stay in) the known hotel brands and their standardized quality, it's worth maintaining a standardization form for hotel chains.

Along this line of consideration, how is the standardization carried out inside hotel chains? Table 12a shows that the coefficient of variation in 3 dimensions for high quality hotel chain is smaller than the ones of low quality chains, we also do ttest to check they are significantly different(appendix2). Table 12b examines whether hotels attached to high quality groups have their stars, size, and number of services highly diversified. As all coefficient is negative and significant at 1% level, the result indicates that the negative relationship between quality of hotel chain and coefficient of variation, showing that the higher quality a hotel chain, the less the coefficient of variation, likely, the more use of standardization operation in quality, size and number of services. H3 is tested, high quality hotel chains standardize quality to large extent than low quality ones.

**Table11** Coefficient of variation for independent establishments

Variable	Mean	Std. Dev.	Cv	Min	Max	Obs
size	4.38	1.00	0.23	1.79	7.70	888
# of service	10.98	7.43	0.68	0	34	894
stars	2.23	1.04	0.47	1	5	894
Coefficient of variation for only hotel chains						
Variable	Mean	Std. Dev.	Cv	Min	Max	Obs
size	5.73	0.73	0.13	3.00	8.34	418
#of service	18.53	5.53	0.30	4	31	418
stars	3.15	0.73	0.23	1	5	418

**Table 12a** Descriptive statistics of coefficient variation by high and low quality chainsAverage star of chain $\geq 3$ 

Variable	Mean	Std. Dev.	Min	Max	Obs
Cv(stars)	0.15	0.10	0	0.42	44
Cv(size)	0.08	0.05	0	0.23	44
Cv(#of service )	0.19	0.10	0	0.43	44

Average star of chain $< 3$ 

Variable	Mean	Std. Dev.	Min	Max	Obs
Cv(stars)	0.29	0.17	0	0.71	18
Cv(size)	0.14	0.11	0	0.52	18
Cv(#of service )	0.28	0.18	0	0.68	18

**Table 12b** Results from regression model of each chain's average stars on each chain's coefficient variation of size, star, number of services

Dependent variable: coefficient variation of stars/size/number of services

Variables	Model4	Model5	Model6
Average stars	-0.11*** [0.03]	-0.06*** [0.02]	-0.11*** [0.03]
constant	0.56*** [0.09]	0.27*** [0.06]	0.55*** [0.10]
Observations	62	62	62
Adjusted R <sup>2</sup>	0.18	0.13	0.15

<sup>a</sup> Standard errors are reported below the parameter estimates in brackets

\*\*\*correlation significantly different from zero at the 1% level

\*\*correlation significantly different from zero at the 5% level

\*correlation significantly different from zero at the 10% level

## 6. Summary & Conclusion

In this paper we first study basic rationale about chains and main strategic issues about chain operation. We analyze the advantages of this form of organization and propose two main strategies chain enterprises apply to obtain competitive advantage. Competitive strategies refer to whether hotel chains choose high quality or low cost as their distinctive signal, relevant to competitive strategies, whereas the degree of standardization refers to whether the hotel chain decides to apply low diversified form of size, quality, etc, with that competitive strategy.

To test our hypotheses, we utilize data of 1525 establishments of hotel industry in Majorca, while testing with variable stars we only use 1312 because others in our dataset don't have a star rating. It is important to keep in mind that the results only present the situation in the given place. We find that there are a quite wide range of hotel types including hotels, hostels, etc. By running the logit model, we get the conclusion that hotels that are attached to hotel chain have better quality than independent establishments, however, it has not been tested that the larger scale of a chain, the better quality it has. During our research about standardization, we find that hotel chains in Majorca tend to apply a lower diversified strategy in terms of size and quality than independent ones, internally, a high quality hotel chain tend to apply a low diversification pattern (that is, a higher degree of standardization in relation to quality, as measures by stars and services supplied).

Our results suggests that in comparison with independent establishments, hotel chains generally have higher star rating so quality is a good differentiation method for hotel chains related to market positioning. Furthermore, it is necessary for hotelier to realize the relationship between scale and quality. Large size chain may not equal to a higher quality, so it's important to find certain scale that the chain can maintain and also should be different to its competitors. While managing or expanding the hotel chain, hoteliers should base on the hotel's own conditions and decide a low cost or a high quality strategy, balance well the standardization and personalization. The key is hotel providers must implement solutions that provide unique insight into guest preferences and apply this knowledge to deliver increasingly differentiated and delightful services. For a hotel chain positioning in high consumption market, if rapid growth is not with strict controls on the process, procedures and systems that support the expansion, hotel chains may run the risk of creating a level of complexity, hence being the same is also a differentiation strategy. For those low quality hotel chain providers, diversification or personalization can provide opportunities to increase revenue, despite of the smaller size and less stars than high quality chains, they can empower guests to personalize their own stay and communicate their preferences with the hotel, this help to get a wider range of consumers. Since hotels are diversified in

this hotel chain, consumers can choose according to what they like and how they feel the most comfortable.

All in all, product differentiation is a necessary method for hotel chains to win the market competition. In this study, we only have data about stars and services as measure of quality, we hope that future research can builds on more different aspects like room rate, cost and develop better measures of quality and hotel performance.



## Appendix

### 1. ttest of the mean of star between independent establishments and hotel chains

	Mean	Std. Err.	Std. Dev.	Obs
x	2.23	0.03	1.04	894
y	3.15	0.04	0.73	418
combined	2.52311	0.03	1.044095	1312
diff	-0.92	0.05		

Ha: diff != 0 Pr(|T| > |t|) = 0.0000

### ttest of mean of number of services between independent establishments and hotel chains

	Mean	Std. Err.	Std. Dev.	Obs
x	10.98	0.25	7.43	894
y	18.53	0.27	5.53	418
combined	13.39	0.21	7.73	1312
diff	-7.55	0.41		

Ha: diff != 0 Pr(|T| > |t|) = 0.0000

### 2. ttest of coefficient of variation of size between high and low quality chains

	Mean	Std. Err.	Std. Dev.	Obs
x	0.08	0.01	0.05	44
y	0.14	0.03	0.11	18
combined	0.10	0.01	0.08	62
diff	-0.06	0.02		

Ha: diff != 0 Pr(|T| > |t|) = 0.0040

### ttest of coefficient of variation of stars between high and low quality chains

	Mean	Std. Err.	Std. Dev.	Obs
x	0.15	0.02	0.10	44
y	0.29	0.04	0.17	18
combined	0.19	0.02	0.08	62
diff	-0.14	0.03		

Ha: diff != 0 Pr(|T| > |t|) = 0.0002

### ttest of coefficient of variation of number of services between high and low quality chains

	Mean	Std. Err.	Std. Dev.	Obs
x	0.19	0.02	0.10	44
y	0.28	0.04	0.18	18
combined	0.22	0.02	0.03	62
diff	-0.09	0.04		

Ha: diff != 0 Pr(|T| > |t|) = 0.0146

### 3

id	name_chain	local	inter/national
1	Acorn International Hotels		√
2	Amic Hotels	√	
3	Arabella Hotels		√
4	Autocares Batle / Cadena Mar	√	
5	Barcelo Hotels		√
6	BG Hoteles		√
7	Blau Hotels		√
8	BMC Hotels		√
9	BQ Hoteles		√
10	CM-Hotels		√
11	Colors Hotels & Resorts		√
12	Compañia Hotelera Sant Jordi	√	
13	Confort Hotels		√
14	D'Or Hotels	√	
15	Delfin Hotels		√
16	Eden Hotels		√
17	Eix Hotels	√	
18	Esperanza Hoteles		√
19	Fiesta Hotels-Doliga		√
20	Framotel		√
21	Gavimar	√	
22	Green Oasis Clubs & Hotels		√
23	Grupotel		√
24	HM Hotels		√
25	Hesperia		√
26	Hipotels		√
27	Hotelera Alfa	√	
28	Hotelera Pollensina		√
29	Hotelera Saint Michel	√	
30	Hoteles Garden		√
31	Hoteles Gran Isla	√	
32	Hoteles Levante		√
33	Hoteles Sunwing		√
34	Hotetur Club		√
35	Husa		√
36	I.R. Hoteles		√

37	ITC		√
38	Iberostar		√
39	Insotel		√
40	Intertur		√
41	Inturotel	√	
42	JS Hotels	√	
43	MAC Hotels		√
44	Magic Hotels		√
45	Marina Balear		√
46	OLA Hotels		√
47	PRInsotel		√
48	Palia Hotels		√
49	Palmira Hotels	√	
50	Piñero Hoteles	√	
51	Playsol Hotels		√
52	Protur Hotels	√	
53	ROC Hotels		√
54	Riu Hotels		√
55	Sabina Hotels	√	
56	Serrano		√
57	Sol Melia		√
58	Stil Hotels		√
59	Sun Club		√
60	THB Hotels		√
61	Valentin Hotels		√
62	Viva Hoteles		√

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