A STUDY ON HOTELS
AND
GUESTS' SATISFACTION

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Abstract

In every competitive economic environment, firms strive for continuous improvement and better understanding of the market, as well as the needs and wants of customers. This work analyzes the hospitality industry as a whole, describing its challenges and the most relevant changes which it has undergone in recent year. Furthermore, it also aims to shed a light on the factors that influence the satisfaction of customers, which hotels need to maintain high to achieve a good profitability. To do so, a sample of 600 Italian hotels has been chosen and thoroughly analyzed. The findings offer additional insights to operators of the industry and advice them on how to improve their performance.

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1. Introduction

In every sector of the economy, it is essential for firms to get to know their customers and understand what their preferences and expectations are. Without this vital knowledge, it would be impossible for firms to come up with products or services that match as closely as possible the taste of the consumers and, as such, enhance their satisfaction. In turn, customer satisfaction is what firms try to achieve in order to obtain satisfactory results.

This is especially true for those sectors in which the direct contact with the customers is prominent. In fact, the service industry in general typically involves some kind of direct contact between the two parties. The resulting relationship will influence the emotional side of the customer. Only if those feelings have been positive will the customer consider repeating the experience, or recommending it to friends and relatives.

The hospitality industry is a perfect example of a sector in which the service that is offered to the customers can influence their state of mind. It is a very complex, diverse and dynamic environment, which has been deeply changed by the advent of new technologies and marketing tools in recent years.

Among these changes, the availability of user-submitted online reviews is one of the most important. The opinions of millions of hotel guests can now be heard and they have the opportunity to voice their praise or their discontent for what they experienced during their stay at a certain hotel. This is an additional tool for prospective guests, who can make use of reliable third-party information, and a powerful vehicle for good or bad publicity for the hotels. It is evident that ensuring that hotels receive good reviews should now be a priority for hotel managers.

There have been a number of papers dealing with these issues, the content of which will be discussed in detail in the literature review section. This work aims to develop on the concepts introduced by earlier authors and add to the body of knowledge through the conduction of an empirical research.

The paper is structured as follows: in the first section, a comprehensive literature review is presented to the reader, highlighting the most important characteristics and developments of the hospitality industry. Then, the research questions and the hypothesized relationship are outlined. In the third section, the data set is presented in detail. The fourth section consists of the analysis of the

data set and the empirical research. It consists in the investigation of how some definite, fixed factors can influence the performance of hotels, measured on the basis of the online reviews that each of the 600 hotels examined has received. To conclude, the final part will include some suggestions for further research, as well as presenting some limitations.

2. Literature Review

2.1 A Strategic Look at Management in the Hospitality Industry.

In order to obtain a certain level of performance, firms must reach a complete understanding of the business environment that they operate in, developing competitive methods and strategies to take advantage of opportunities, minimize threats and allocate resources to the most appropriate competitive methods. If the organization is successful in this endeavor, it is likely to achieve its desired level of success.

The hospitality industry consists of a broad category of fields within the tourism industry which covers a wide range of organizations offering accommodation and food service. It is very complex and dynamic, and has undergone major changes in the last few decades, mainly due to the growing internationalization of tourism and the introduction of new technologies. The extensive number of variables to be studied, and the interrelations among them, makes conducting research in this field particularly challenging and interesting. The industry is very fragmented, made up of hundreds of thousands of hotels and resorts distributed all over the world, which can be independent or parts of chains or other associations. As a result of this, it is very complicated to conduct large-scale studies and provide theoretical frameworks in this particular field. (Olsen & Roper, 1998)

There have been historically two lines of research activity in strategy of the hospitality industry. The first field of work has been mostly of a conceptual nature (Canas, 1982; DeNoble & Olsen, 1982; Olsen & Bellas, 1980; Zhao & Merna, 1992; Slattery & Boer, 1991). This has consisted in trying to apply strategic models developed for other sectors to the hospitality industry, without conducting empiric investigations. Anecdotal work has also been carried out, analyzing specific companies. (Hazard et al., 1992).

The second line of research activity has focused more on applying empirical approaches to theory building. Tse and Olsen (1988), West and Olsen (1989, 1990) tried to develop various hypotheses with the objective of investigating the dynamics between strategy, environmental analysis and firm structure. These studies relied primarily upon survey research methods, and even though the research was conducted rigorously, unfortunately only little success in contributing to the body of knowledge has been achieved.

In light of this, researchers more recently have been trying to rely more on the use of case study methodology, particularly analyzing to depth issues like the international development and entry into foreign markets (Zhao, 1992), strategy implementation (Schmelzer, 1992) and strategic alliances (Monga, 1996). These investigations have permitted the analysis of several national and international hospitality firms. Their nature was mainly exploratory, suggesting further research and the building of new hypotheses.

In recent times research has then focused upon the competitive methods put in place by firms. For the hotel industry, such research has been carried out by Murthy in 1994, whose investigations explored the relationship between the employment of said methods and firm performance. Another study conducted by Olsen in 1995 analyzes the competitive methods of major multinational firms over a 10-year period. Using content analysis methodology, Olsen attempted to highlight the relationship between change-driving forces and the choice and number of competitive methods chosen by each of the organizations that were examined. The results suggested that a relationship indeed existed but no rigorous testing of the proposed relationship was ever carried out.

The latest additions to the literature have concentrated upon the core competencies that firms have used to seek to obtain competitive advantage (Olsen & Roper, 1998). Cho (1996) emphasized the role of information technology as a core competency in multinational firms. Brotherton and Shaw in 1996 shifted their focus on the United Kingdom, trying to classify critical success factors for hotels based in that country. In conclusion, the focus of all these researches has been that to try and identify which abilities and peculiarities offer competitive advantage in the sector.

Another area of research has been that on the topic of internationalization. It has so far attracted less interest, meaning that less theoretical and empirical research has been undertaken on the topic. However, knowledge has been slowly developing through renewed academic inquiry. Research is mainly concentrated in the internationalization of hotel groups. Unfortunately, although these analyses are based on a numerical framework and the importance of growth in international travel, they have added little theoretical knowledge about internationalization. In addition, they are mostly partial because of the difficulty of covering large geographic areas.

Other authors have attempted to establish more hypothetical bases for the internationalization of hotel groups, most notably the work of Dunning and McQueen (1981, 1982) which, in cooperation with the United Nations, explained the growth, distribution and forms of

involvement of international hotel groups. Turnbull (1996) pointed out the financial risk factors affecting foreign investments in the sectors. Dunning & Kundu (1995) try to answer the question of "*what, where* and *how*" chains of hotels develop internationally.

Further research has then been carried out into the forms of expansion of international chains of hotels. Dunning & McQueen (1981) and Dave (1984) concerned themselves with entry modes, such as franchise, management contracts and technical agreements.

So far, little research has gone into the analysis of strategy implementation as related to firms in the hotel industry. In fact, findings from research related more to an investigation of growth strategy rather than tending to be developed into a fuller strategy implementation framework. (Olsen & Roper, 1998) However, some authors have tried to fill the gap. For example, Okumus (1997) investigates strategy implementation in international chains of hotel, utilizing a qualitative methodology.

The majority of the literature reviewed up until this point has been characterized by what can be defined as a "classical" approach, focusing on the traditional aspects of strategy. This type of view is mostly uni-dimensional and has little success in explaining the context of how strategy really works in the market. On the other hand, more contemporary strategic management literature tends to offer a more dynamic viewpoint. It takes into account the fact that organization prosper in highly changeable environments, when they sustain states of instability and tension, all of which fosters new learning. (Hamel & Prahalad, 1994) Other authors such as Edgar and Nisbet (1996) propose the use of the concept of chaos theory rather than long term strategic planning, as they feel that it is more appropriate to develop an understanding of the complexities of the hospitality industry. This is the direction where most scholars (Olsen & Roper, 1998) believe that further research should proceed, in order to yield a more realistic representation of the contemporary marketplace.

2.2 The Measurement and Evaluation of Service Quality and Guest Satisfaction.

It is vital for firms in every service industry to get a picture of the satisfaction of the customers. Measuring customer satisfaction has thus become an extensively-researched topic in literature and its principles are now relatively well-established. (Jones & Ioannou, 1993) There are

two main models of consumer behavior from which research in the consumers' level of satisfaction takes origin:

– the *disconfirmation* theory: proposes that consumers develop their satisfaction based on the comparison between the expectations and attitudes that they had formed before using the service, and their experience and feelings after making use of it. Disconfirmation happens when there is a significant disparity between what was expected before and the quality of the service that was experienced or perceived. Such swings can be either positive or negative, and overall satisfaction is determined by combining the satisfaction originating by all attributes of the service.

– the *expectancy-value* theory: highlights the fact that the various characteristics of a service are valued differently by each consumer. Satisfaction will thus depend on the which of those characteristic is more valued.

Although these theories have proved valuable and relevant to all industries, they have not been thoroughly discussed in the context of hotel operations. Hotel companies do not seem to acknowledge the importance of weighted service attributes. The industry also presents a focus towards survey-based methods of research, ignoring other methods which would potentially offer more accurate representations of customer satisfaction (Barsky & Huxley, 1989). The literature highlights the fact that hotels are not applying the best available techniques to survey researched, and that in fact their approaches lack in a number of areas. There are three main concerns of customer satisfaction evaluation: survey design, survey distribution and data processing. (Jones & Ioannou, 1993).

Lewis & Pizam (1981) identified the key principles of guest survey design, demonstrating that the guest-comment cards traditionally used by hotels are meaningless, as the responses are too vague and the data cannot be interpreted reliably, thus making the improvement of operations impossible. The main weakness of such guest-comment cards is the failure to measure the relative importance of the characteristics of the service, as such "satisfiers" are not equally important in the consumers' eyes. Secondly, these satisfiers should be clearly identified. Lewis & Pizam argue that this method concentrates on measuring how operations are perceived by the guests, rather than their actual level of satisfaction.

Barsky & Huxley (1992) tried to overcome these shortcomings by suggesting a different approach. The guest-comment cards that they propose not only ask guests to score individual satisfiers, but also the importance of each of them towards the overall level of satisfaction. This model could significantly improve the interpretation of the results, provided that it is used in conjunction with a rigorous demographic analysis of the guests. This, however, may discourage customers from providing their opinion as surveys become too complicated. However, it is thought that discriminating between different typologies of guests is of fundamental importance. (Jones & Ioannou, 1992).

The sampling methods used requires attention, as inaccurate sampling can lead to misleading results. Surveys are routinely left in hotel rooms to be filled in by the customers who wish to do so. Such casual distribution leads to non-response bias and statistical errors. (Barsky & Huxley, 1992) Mail and Internet distribution of surveys could lead to better results, as well as incentives to elicit high response rates (Trice & Layman, 1996).

The responses from the surveys also need to be analyzes and processed properly in order to be useful. The processing of complete questionnaires should be centralized so that evaluation is consistent, and more so for chains as they seek to build brand loyalty. It provides them with an opportunity to compare the hotels they own and become aware of hotel-specific issues.

On the basis of what has been discussed so far, Jones and Ioannou developed a model of "ideal" survey, designed to respect all the principles deriving from the literature. This model identifies 11 criteria which should be followed for the measurement of guest satisfaction. The criteria are the following:

Guest survey design:

1. The survey must include all variables that are important to the market segment to which the customer belongs and impact on their satisfaction.
2. The variables must be weighted on the basis of their relative importance to guests in a certain segment. (Barsky & Huxley)
3. The survey should measure overall satisfaction and the customer's propensity to go back to the hotel or chain.
4. The survey should be standardized throughout the chain.

Survey distribution:

5. The survey should be distributed at random.

6. Approaches should be adopted to maximize the response rate.

7. Analysis should take into account the non-response bias.

Data processing:

8. Surveys should be collected centrally.

9. Data should be analyzed centrally.

10. Data should provide an index of guest satisfaction for all hotels and for the company as a whole.

11. Results should be analyzed at the corporate level and then sent to the single hotels to undertake action.

With relatively little investment, hotel chains can design surveys which respond to these criteria and get a better understanding of why guests are satisfied or not of the service that they experience.

2.3 The Relationship between Service Quality and Business Performance.

The link between service quality and business performance has been highlighted by countless examples across all industries. It is fair to say that service quality does have a significant impact on the business performance of a firm. Because of this, firms that adopt a more consumer-oriented approach are more likely to gain market share and be successful. (Antony & Ghosh, 2004)

This is certainly true for the hotel industry, in which customer satisfaction is vital to build brand loyalty and depends heavily on service quality. To evaluate it, Zeithami (1990) developed a model based on five dimensions, which are the following:

1. *Tangibles*: physical facilities, appearance of personnel, etc.

2. *Reliability*: ability to perform the promised service accurately.

3. *Responsiveness*: ability to resolve problems quickly and actively help guests.

4. *Assurance*: Knowledge and courtesy of employees and capacity to convey confidence.

5. *Empathy*: caring and individualized attention to customers.

A research carried out by Antony and Ghosh based on a chain of hotels based in the United Kingdom found that responsiveness was considered as the single most important dimension among

those proposed. Reliability came second, while the least important dimension was considered to be empathy. In-depth analysis showed that this was due to the slow service that was one of the main problems of the company, along with an inherent difficulty of the employees to empathize with guests. Furthermore, the results proved highly variable across hotels.

In detail, some of the problems that were identified were:

- inadequacy of the food and beverage served.
- staff motivation and attitude.
- housekeeping problems.
- inadequate communication between management and employees.
- inadequate communication between management and customers.
- slow service.

The research then found that four gaps existed between an ideal service and the one that was effectively being offered. These are the following:

- Gap between customer expectations and management perception of those expectations.
- Gap between management perception of customer expectations and service quality specifications.
- Gap between service specifications and service delivery.
- Gap between service delivery and external communication.

The authors, on the basis of their findings, proceeded to suggest some practices that should reportedly increase customers' satisfaction. The key recommendations are the following:

- The management should have more interactions with their guests.
- The management should delegate more responsibility to the staff and encourage them to make sensible decisions and be more caring with guests.
- Introduce formal training in service quality, so that staff is prepared to deal with different types of guests and their relative needs.
- Regular meetings should be held to foster communications between the management and the front-line staff.

- The management should be more strict in enforcing standardized procedures. There should be particular attention towards eliminating any cleanliness problems.

- Complaints and compliments should be circulated among the hotel staff, so that they know how to improve or create examples to follow.

- Recruitment process should be standardized.

2.4 New Challenges for the Hospitality Industry: Information Technology.

The use of information technology and of the systems related to it has been quickly expanding in all sectors of the economy. Although the hospitality industry has lagged behind others in the adoption of such instruments (Buick, 2003), the situation has improved in recent times, resulting in some significant changes in the methods and practices put in place by the operators. The areas which have been affected are distribution and pricing. The rise of disintermediation has become an object of interest. Finally, the behavior of consumers has also been modified by the introduction of new technologies. (O' Connor & Murphy, 2004) It is appropriate to examine these topics one by one.

2.4.1 Electronic Distribution

The last few decades have seen substantial changes in how people book hotel rooms or holidays. Carroll & Siguaw (2003) describe the major players involved in distribution. According to them, economies of scale and scope force hotels to make rooms available to third-party intermediaries, which in turn gain more and more control over the methods of sale and the price of the room. Two models of sale have developed: with the traditional commission-based model the hotel pays a commission to the intermediary for each room it has sold. On the other hand, with the more recently-developed merchant model the hotel "sells" the room to the intermediary at a discounted price. It is then up to the intermediary to determine the final selling price by adding a margin to the discounted fare proposed by the hotel. The adoption of this latter method has pushed prices downwards, thus softening hotel profitability, and increased substantially the dependence of hotels on their intermediaries. because of this, the authors urge hotel owners to use this method only selectively and to strive to drive people to book directly on the hotel's website.

Similarly, O' Connor & Piccoli (2003) advice hoteliers to reconsider their approach to distribution. Currently, most use a shelf-space approach, which consists in being present on as many

channels or websites as possible, following the belief that more visibility leads to better results, and without realizing that as the number of channels increase, so does the profitability required to correctly use them. O' Connor (2004) emphasizes the role of customer relationship management. They suggest that by building and retaining brand loyalty it is possible to effectively fight the online intermediaries, countering their advantages of convenience, rich feature set and competitive prices. According to them, this will ensure profitability in the long run.

Dale (2003) goes into the subject of why electronic distribution has become so complex. He shows that intermediaries are forced to form strategic alliances in order to be successful. Companies enter into stable inter-organizational ventures so they can reduce the costs and effort of developing competences at a level where they can be satisfactorily profitable. Dale claims that the establishment of such forms of cooperation leads to the formation of a "synergistic strategic value" with every partner enjoying a benefit from it. The synergy helps offset the newness of the firms and helps them compete against established competitors.

Finally, a study by O' Connor and Frew (2003) address the issue of which channel the suppliers should use. Unlike other authors, they claim that technical and operational factors should be considered more important than strategic and financial criteria. They argue that technical and operational issues are a more direct influence on the performance, and that it should be the key determinant in choosing a particular channel.

2.4.2 Disintermediation

Several articles address a common idea, which predicts that the use of the Internet will eventually lead to disintermediation. Tse (2003) highlights how selling rooms on the Internet may affect the relationship between travel agents and hotels. The majority of hotels try to direct their customers to book on their websites, promising them lower rates and rewards for their continued loyalty. At the same time, travel agents remain an important source of business, so hotels will not want to damage their relationship with them. Tse argues that the balance of power between the two parties depends by the perception of the damage received by the other and the interdependence. Tse concludes that the exposure of both parties to negative external factors and their high interdependence helps to explain why travel agents accept hotel strategies in a relatively passive way.

Several papers emphasize the steady growth of direct Web sales within the hotel industry. Garcés (2004) show that most hotels based in Aragon have adopted e-commerce and garner up to 5% of their revenue from the Internet. Buick (2003) similarly found high levels of computer use and Internet marketing in small Scottish hotels. Vich-i-Martorell (2004) examined the potential of using the Internet to compete with tour operators and conducted a research which shows that the great majority of Balearic hotels uses e-commerce.

2.4.3 Online pricing

Enz (2003) claims that the use of networks has been driving down hotel profitability. Her analysis shows that the use of such instruments encourages competition based solely on price and urges a change of strategy to avoid this hidden discounting. She argues that, as customers become more tech-savvy, they shop around for rooms, canceling and rebooking if they find better fares. Such methods simply displaces customers from one channel of distribution to the other. Any increase in the volume of rooms sold does not offset the value of the discounting. Enz suggests that hoteliers need to be more selective about the rates they provide to third party sites to make sure they still generate incremental revenues.

A research by O'Connor (2003) investigates the behavior of chain hotels to find out if the cheapest prices are indeed offered online. His findings show that hotel companies use multiple distribution channels and also differentiate prices within them. No channel consistently offers the cheapest price, but customers are more likely to find cheapest prices on direct channels at the lower end of the market and through intermediaries at the upper end. So, this indicates that luxury hotels offer their cheapest prices through channels with the highest cost of distribution, which O'Connor judges a poor piece of distribution management. He then suggests hoteliers to embrace strategies to offer well thought-out pricing and encourage customers to book directly through brand websites.

2.4.4 Hospitality Consumers and Information Technology

Several authors analyze the ways in which the use of technology influences the choices of travelers. Looking for information on the Internet is one of the first stages of the decision-making process. Gursoy and Umbreit (2004) analyzed how the cultural differences between European countries influence the behavior of hospitality consumers and found that Belgians and Italians tend to use external sources more often, whereas travelers from Denmark and Finland rely more on the Internet. Jeong (2003) claims that information satisfaction is an important determinant in the final

choice of the consumers; website operators must satisfy the visitors' needs in order to obtain a higher number of online transactions. Card et al. (2003) delineates the characteristic of the online customers, which tend to be opinion-leaders, more innovative and involved in information seeking.

To correct their websites in order to better match the wants of the customers, hotels must primarily reflect on their website design. Research on effective hospitality websites is an ongoing quest (O'Connor & Murphy, 2004). Dubé (2003) states that websites should reinforce a hotel's attractiveness going beyond the visual pleasures of the site and trying to build emotional connections within the customers. Other researches, such as Jeong's (2003) go more into the detail of how to achieve such feat. Jeong suggest to incorporate six key characteristics in websites, namely information accuracy, clarity, completeness, ease of use, navigational quality and effective color combinations. Murphy et al. (2003) also warn website owners against questionable techniques such as animations which are often perceived to add little value and reduce rapidity and ease of use.

Another field of study has been that of the customer relationship management (CRM). This approach aims to increase the familiarity between hotels and customers and lower marketing expenditures. However, for this to be put in practice, the hotel chain must collect an extensive amount of customer information, which is in itself a costly and time-consuming process. If the practical difficulties can be overcome Picolli (2003) argues that CRM would indeed present practical and economic advantages. Three additional studies investigated a subcategory of CRM, that is online customer service. Frey (2003) investigated the e-mail response rates of hotels across countries and found that Swiss hotels score highest with a 71% rate of response while Tunisian hotels only score 45%. However, most responses were found to be inadequate and inaccurate, suggesting a lack of focus towards online customer service. Only larger, higher rated hotels tended to provide better quality responses.

3. Research Questions

The existing literature has offered a thorough overview of the most important problems that the hospitality industry has to face and the areas on which hotel and chain management can intervene. It is clear that there is still much to be done by hotel owners to reach an optimal level of customer satisfaction and, by virtue of that, higher sales volume and profitability.

Hospitality industry operators might find difficult to understand how to improve the impression that their hotels leave on guests. As we have seen, people travel for different reasons and several categories of customers exist. Each one will be characterized by its own peculiar wants and needs and it is an uphill struggle to make sure that they are all taken into consideration when the final service is provided, since it is clearly not economically feasible to propose heavily personalized services to each customer.

For this reason, I reckon that it is important for hotels to find those needs that are most urgent to a widest possible portion of the guests, and then work towards satisfying them and enhance the hotel's offer as a whole. To do so, it is essential to understand which are the characteristics of a hotel that guests appreciate the most.

Thus, I propose the following research questions:

Question 1. Do the "fixed" factors have an effect on customer satisfaction? Is the effect positive or negative?

As "fixed" factors, I analyzed the presence of a free internet connection, the absence of *any* internet connection, a free parking space, the distance of the hotel from the city center and the presence of a restaurant. I will proceed to analyze the relationship between the existence of a certain condition and the reported level of customer satisfaction.

I expect to find that a free internet connection has a positive effect on customer satisfaction. Conversely, the absence of an internet connection should have a negative effect. A free parking space should have a positive influence, especially in heavily congested cities. Customers satisfaction should then decrease as the distance from the city center increases. Finally, the presence of a restaurant in the hotel should be considered an advantage, as it increases the comfort of the customers.

Question 2. Are guests more inclined to report a higher satisfaction level when choosing a hotel which is affiliated with a chain?

I find important to investigate the different perceptions of hotels depending on their affiliation to a chain. Hotels which are affiliated with chains enjoy several advantages, such as brand recognition, wider access to advertising and standardized, high-quality services. Thus, I expect that the affiliation with a chain should have a positive effect on customers.

Question 3. Are there differences between Italian or foreign chains?

Finally, I find appropriate to check if there are differences between Italian and foreign chains on the satisfaction of customers. There are no clear-cut expectations for this question, because as Italian chains could enjoy a higher appeal on domestic customers, foreign chains could look more reassuring to visitors coming from abroad. But, at the same time, foreigners could enjoy the more peculiar feel of an Italian chain-owned hotel and, similarly, Italian customers have possibly learned to prefer international chains over their national competitors.

These research questions will then be investigated by conducting linear regressions on the data set I have collected.

4. The Data Set

4.1 Data Collection

The data set used for this research was collected by myself over a period of approximately seven months, from February to September 2010. I used as a source the website www.booking.com. Booking.com is one of the world's leading online hotel reservation agencies and attracts over 30 million visitors monthly via Internet from both leisure and business markets worldwide. It claims to offer the best prices for any type of hotels, ranging from small, one-star independent properties to five-star resorts. The website was originally established in 1996 in Amsterdam, where it is still headquartered, but in 2005 it was acquired by the American giant Priceline.com. The American company, which is based in Norwalk, Connecticut, is listed on the NASDAQ-100 index. It elected to keep the booking.com brand running because of its established image among Internet users. At this time, Booking.com employs over 1600 highly-specialized professionals and offers a choice of over 100.000 hotels in 89 countries. The website is available in 37 different languages.

Booking.com's method of collecting the opinions of hotel guests consists in sending them a message at the e-mail address they provided upon booking. The e-mail contains a link which redirects to a page which asks the guests to answer four multiple-choice questions regarding their experience at the hotel. The system then translates the answer given into numeric grades, ranging from 1 (terrible) to 10 (exceptional). Additionally, the guest may leave two open comments, highlighting the best and worst part of his experience, or alternatively leave only one if the guest has no negative (or positive) experience to report. It is important to note that guests are free not to give out any opinion about their stay and that their contribution is entirely voluntary. The reasons users leave comments is to provide future guests of a facility with additional, more detailed information, which goes beyond the traditional advertizing style employed by hotel management. In return, they expect to receive similarly reliable information from fellow users on other hotels they may decide to visit in the future.

When users wants to look for a hotel in a particular city or region on Booking.com, they are presented with a list of hotels. They may then select one by clicking on the name of the hotel. Two pages may then be opened; in the first one, named *Overview and Availability* a general description of the hotel is provided. The most important features are its position, listed on a map provided by

Google, several pictures of the hotel and its rooms, a breakdown of the typologies of rooms available and the main services offered (e.g. restaurant, Internet connection, parking space) and the distances from key city attractions. Sometimes, ownership or chain affiliation are also indicated here. Further down this page, a list of the Hotel Policies and of the Terms and Conditions of Booking is provided, so as to inform the customer of all the rules concerning his stay.

The second page, named *Guest reviews* lists the grades received by the hotel from its guests in six different categories, namely cleanliness, comfort, location, services, staff and quality for the price. The number of reviews is also made public, along with the typology of guests who left it. Below, a list of single guest reviews is made available, where it is possible to read the open comments left by previous guests. The name, star rating and address of the hotel are always visible at the top of the page.

I used the information freely available on the website to conduct the research selecting from its database 600 hotels with different characteristics, based in eight different Italian cities. I searched each of these cities and chose a number of hotels among those that were listed. The number was chosen trying to roughly replicate the proportion of the number of hotels each city has. The choice of individual hotels was random, although I tried to replicate as closely as possible the star rating proportion existing in each city. I then examined the reviews and extracted relevant data, which will be explained in detail later, to use in my data set. Furthermore, I then searched for some key services and amenities offered by the hotel and I also took note of some of its fixed characteristics such as the distance and the ownership. When there was no clear information available on Booking.com, especially regarding ownership, I visited directly the hotel's website in order to gather more accurate information. Finally, to try and keep the analysis free of statistical bias, I excluded all hotels which had received less than five reviews at the time I searched them.

I then merged all the available data into one single data set, in order to conduct statistical analysis using the Stata software.

As mentioned earlier, hotels from eight different Italian cities were included in my database. Italy is the fifth country in the world by number of international visitors, ranked by the World Tourism Organization at 43.2 million in 2009. Only France and Spain receive a higher number of visitors in Europe. ISTAT states that the receipts that Italy receives from tourism were over 48 billion US dollars in 2009. Italy is also the smallest country among those listed in the top 10, which

highlights the very strong relative importance of tourism-related industries all over the Italian territory. The cities and their relative weight (i.e. number of hotels) were selected according to the city's importance in the hospitality industry and its dimension. However, this should be considered an approximation made for the practical purposes of the research.

All the descriptive statistics of the data collected is reported in Table A.

4.1.1 Rome

Rome has been the capital of Italy since 1870 and is the country's largest and most populated city, with over 2.7 million residents. It is located in the center of Italy and is also the capital of the region in which it is contained, Lazio. Its municipality's area is by far the largest in the country, with 1,258 km^2. According to the tradition, it was founded in 753 BC and has a very cultural rich heritage. Rome was the capital of the Ancient Roman Empire which colonized and left its influence on much of Europe, the Middle East and North Africa. Within the city of Rome is located the Vatican City, a tiny independent State which is ruled by the Roman Catholic bishop of Rome, the Pope. Being the Catholic Church's see gives Rome a huge appeal among religious tourists.

In 2007 Rome was the eleventh most visited city in the world, the third in the European Union and the top tourist attraction in Italy. According to City Mayors, the city is one of the world's most successful brands in terms of reputation and assets. The historic centre of Rome is a UNESCO World Heritage site. Monuments such as the Vatican Museums (4.2 million visitors yearly) and the Colosseum (4 million visitors yearly) are among the top 50 most visited attractions in the world. The city also hosts several international events and is the seat of international entities such as the Food and Agriculture Organization (FAO) and the World Food Program (WFP).

Rome contains a vast and impressive collection of arts, in the form of paintings, sculptures, fountains and mosaics from all different periods. In fact, Rome began to be an important artistic center in Ancient Times, then after a long period of decadence it rose again to prominence during the Renaissance. Its architecture is similarly varied: the main influences are baroque and neoclassical, whereas in recently-built areas of the city the Fascist style is evident. The city also boasts several universities and colleges. Among them, the most important is the Università La Sapienza, the second-largest university in Europe.

Sport also plays a role in increasing the city's popularity. Rome hosted the 2009 Champions' League Final and the 2009 European Swimming Championships. From 2012 onwards, it is also set to host yearly a Formula One Grand Prix in the EUR area of the city. Association football teams SS Lazio and AS Roma regularly feature in European competitions and play their home matches at Stadio Olimpico. The Italian rugby national team plays its home matches in the Six Nations' League at the Stadio Flaminio and the city is bidding to host the 2020 Summer Olympics.

Four hundred of the 600 hotels included in the research are located in Rome.

4.1.2 Milan

Milan is situated in north-western Italy and is the second-largest city in the country. The municipality has a population of about 1.3 million residents, but its urban area is the most populated in Italy, being home to 7.4 million residents, as estimated by the OECD. Its city area is remarkably small for such an important center, at only 183 km^2. Milan is the capital of the region of Lombardy.

Milan is one of the European Union's most visited cities. In 2008 it ranked as the fifty-second most visited city in the world. It is one of the world's most important financial and business centers and, with a GDP of 241.2 billion of US Dollars, the economy of Milan is as large as that of Austria. It is also the seat of the Italian Stock Exchange (*Borsa Italiana*).

The fashion and jewelery industry made Milan famous all over the world. Along with London, Paris and New York. it is considered a fashion capital. Most of the major Italian fashion brands, such as Valentino, Giorgio Armani and Dolce & Gabbana are currently headquartered in the city. The architecture of the city is also well appreciated. Its Gothic cathedral (*Duomo di Milano*) is the city's most visited attraction. Other top tourist spots include the Castello Sforzesco, the Pinacoteca di Brera and the Navigli area.

Much like Rome, sport contributed to improve the city's image. Two of the world's most successful association football teams are based in Milan; FC Internazionale, which won the last Champions' League and AC Milan, which achieved that same feat seven times. They both play their home fixtures at the Stadio Giuseppe Meazza in the San Siro area. The neighboring city of Monza hosts a Formula One Grand Prix every year. Milan also regularly hosts the finishing stage of the Giro d'Italia, one of the world's most important cycling races.

In the future, the city is set to receive a major boost as it hosts the 2015 Universal Exposition. For this special occasion, the transportation and hospitality facilities are undergoing major renewals.

4.1.3 Naples

Naples is the capital of Campania, the second most-populated region of Italy, and lies at the northern top of a bay on the Tyrrhenian Sea, in the southern part of the Italian peninsula. The city is known worldwide for its rich history, art, culture, music and gastronomy. It has a long history, with its foundation dating back approximately 2800 years ago. Formerly it was the capital of the Kingdom of the Two Sicilies, before its annexation into the Kingdom of Italy in 1861.

The city proper has a population of around 1 million, but its metropolitan area, which encompasses much of the rest of the region, is home to approximately 4.5 million inhabitants. The municipality is very small, at 117 km^2.

Ever since Roman times, the city has enjoyed a good reputation as a tourist destination, thanks to its favorable climate and spectacular sceneries. Its remarkable historic city center has been proclaimed a UNESCO World Heritage site. The city hosted the G8 meeting in 1994 and will host the International Astronautical Congress in 2012 and the Universal Forum of Cultures in 2013.

Thirty-five hotels based in Naples are included in the database.

4.1.4 Venice

Venice is the capital of the northeastern region of Veneto. It is built on a lagoon along the Adriatic Sea and stretches across some 117 islands. Due to the peculiar geography of the city, only 272,000 inhabitants live in the municipality. The Republic of Venice was a major maritime power in the Middle Ages and the Renaissance, being a staging area for the Crusades and the historic Battle of Lepanto. Venetian possessions included Istria and Dalmatia (now Slovenian and Croatian territory) and several islands that now belong to Greece. It was an important center of commerce, but most importantly of art, especially during the Renaissance. Venetian influence is particularly strong on operatic music and architecture.

The city is one of the world's most important tourist destinations and was ranked twenty-eighth among the most visited cities in the world. Attractions include Saint Mark's Basilica (Basilica di San Marco), the Canal Grande and Piazza San Marco.

Thirty-five hotels based in Venice are included in the database.

4.1.5 Florence

Florence is the capital of the central region of Tuscany and lies on river Arno. It is home to 370,000 inhabitants, although its urban area hosts more than one million people. It is known worldwide for its importance in the Middle Ages and the Renaissance, particularly regarding art and architecture. It is a major cultural center in Italy and the Italian language itself originated from dialects spoken in and around the city. It is considered the capital of the Italian Renaissance and has been dubbed the Athens of the Middle Ages by the Encyclopaedia Britannica.

The city boasts a wide collection of art of all kinds, hosted primarily in the Pitti Palace and in the Uffizi Gallery, which receive about 1.6 million tourists every year. Other key attraction include the Ponte Vecchio and the Santa Maria Novella Cathedral. It has been the birthplace of countless important Italian personalities, such as Dante, Leonardo da Vinci and Galileo Galilei.

As highlighted by several studies, such as those conducted by Euromonitor, culture-based tourism is growing, together with its related spending. This makes the hospitality industry a vital sector for the economy of Florence. Food and wine production is also a prominent source of income for the city.

As for Naples and Venice, thirty-five hotels have been chosen from Florence.

4.1.6 Turin

Turin lies on river Po in the north-west of Italy and is the capital of the region of Piedmont. It is a major cultural and business center of Italy and it is the fourth-largest city in the country. The population of the city proper stands at around 910,000 inhabitants. The OECD estimates the urban area of Turin to be home to 2.2 million inhabitants. It is a cosmopolitan city which enjoys state-of-the-art technological and architectural developments.

The city has a rich history and heritage, having been the first capital of Italy after its unification in 1861. It is home to one of Italy's finest universities, the Polytechnic College of Turin. Its attractions include the Museo Egizio, the Mole Antonelliana and the Murazzi Area.

Turin is mostly known for being the capital of Italy's automotive industry. Fiat, Alfa Romeo and Lancia are all headquartered in the city and owned by the same group. The city has a rich sport tradition, having most recently hosted the 2006 Winter Olympics and being home to Italy's most successful association football team, Juventus FC.

Fifteen hotels from this city are included in the database.

4.1.7 Genoa

Genoa is also situated in the north-west of Italy, at the northernmost point of the Ligurian Sea in Western Italy. The most important port in Italy, Genoa is the capital of the region of Liguria and has a population of around 600,000 inhabitants.

The city's rich tradition in art, music, culture and gastronomy made it the 2004 European Culture Capital. It is the southern corner of the so-called industrial triangle of Italy, which has its other centers in Turin and Milan. The city ranks fifth for economic importance in Italy, after Rome, Milan, Turin and Naples, and is the headquarter of several major companies, operating especially in the energy sector. Its main attraction is the city's Aquarium, by far the largest in Italy.

Fifteen hotels from Genoa are included in the database.

4.1.8 Palermo

Palermo is the capital of the region of Sicily, the southernmost of Italy. The region consists of a main island and several small archipelagoes. The city is the largest on the island, the second-largest in the South of Italy and is home to 670,000 inhabitants.

The city is one of the oldest in Italy, its foundation tracing back to 2,700 years ago and the Phoenician colonization of Sicily. Palermo has a rich architectural heritage and is notable for hosting many buildings dating back to the Norman colonization of Sicily. It is considered the touristic, cultural and economic center of Sicily, and its cultural influence has spread, also due to massive emigration, to other areas of Italy especially in the North-West. The city's top tourist attraction is the Palermo Cathedral. The yearly Santa Rosalia festival attracts tourist from all over the world.

Fifteen of Palermo's hotels are part of the database.

4.1.9 The Star Rating System in Italy.

The star rating is the most commonly used system for the classification of hotels. In general, a higher star rating indicates more luxury. Hotels are independently assessed in traditional systems and rest heavily on the facilities provided. Many consider this to be disadvantageous on smaller hotels, which provide services that could justify a higher star rating, but are hampered by the physical impossibility of offering amenities (e.g. an elevator) which would allow it to reach a higher category. (Vine P.A.L., 1981).

All organizations or formal bodies which assign stars follow a system by which the lowest-graded hotels receive one star, and the highest-graded receive five. Variations such as 'superior', 'comfort' and 'luxury' are sometimes added to the star rating but have little formal value, meaning only that the hotel offers services that exceed the minimum requirements for its category but still fall short of obtaining the next star. Certain hospitality industry operators have sometimes claimed that their hotels belong to a six- or even seven-star category. This is the case of the Burj al Arab hotel in Dubai, which is presented as a seven-star hotel. Such claims should be considered unfounded and mere publicity-seeking stunts.

In some countries rating is assigned by a single public standard, with the states or other territorial entities enforcing specific laws which define the criteria by which stars are awarded. This is the case of Italy, which recently joined other European states such as Belgium, the Netherlands, Portugal and Spain by passing a law which provides fixed guidelines to assign the star rating to all hotels and resorts nationwide. Before that date star rating was regulated on a regional basis, which created discrepancies between the very diverse areas of Italy and fostered confusion among prospective guests.

The law was published on the *Gazzetta Ufficiale* on February 11, 2009 and states the following categorizations:

– *one star hotels*: the reception must be open 12 hours a day, the rooms must be cleaned daily and double rooms must be at least 14 square meters large.

– *two stars hotels*: in addition to the requirements of the lower category, must also have a bar or restaurant and an elevator.

– *three stars hotels*: reception personnel must be able to speak at least one foreign language. The reception must be open for 16 hours, the bar must be open for at least 12 hours and all rooms must be equipped with a private bathroom.

– *four stars hotels*: reception personnel must be able to speak at least two foreign languages. Both the reception and the bar must be open for at least 16 hours. Double rooms must be at least 15 square meters, with a bathroom of at least 4 square meters. Baggage transportation to and from the rooms must be offered.

– *five stars hotels*: reception personnel must be able to speak at least three foreign languages. Parking must be available at all times and rooms must be at least 16 square meters.

Of the hotels included in the database, 13 are one star hotels, 50 are two stars hotels, 245 are three stars hotels, 244 are four stars hotels and 42 are five stars hotels. Six of the 600 hotels, all of which located in Rome, do not fall into any categorization as they are residences to which the Italian law does not assign formal ratings. The average star rating across the whole sample is 3.42, with Naples scoring highest at 3.60 (the city exhibiting a lack of one star and two stars hotels) and the lowest being Venice with only 3.06.

The star rating was once the primary source customers would rely on when choosing the hotel where they would stay. Nowadays, the easy availability of pictures of the structures and the reviews of previous customers have somewhat softened the importance of this factor, which nevertheless remains very present in the decision-making process of the prospective guests. As we have seen, the fact that the classification is conducted exclusively based on tangible factors and evaluation of the facilities does not always reflect the true value of a hotel. A higher star rating also creates higher expectations in the customer's mind. Owners of top-rated hotels have to be particularly careful in living up to such expectations, as customers become more exacting and might find flaws that they would otherwise overlook in lower-rated hotels.

4.2 Dependent Variables: Satisfaction Indicators.

I will now move on to describe the judgments expressed by customers on some of the key features of the hotels, discussing them one by one. All of the scores are calculated by asking customers to rate the characteristics of the hotel as poor, fair, good or excellent. These qualitative grades are then translated into a numeric scale ranging from 1 (very poor) to 10 (very good).

4.2.1 Cleanliness

Cleanliness has to be considered one of the most important factors in the selection of a hotel room. Hotel hygiene has been the subject of several studies, most recently by the University of Georgia at Atlanta, which agree that a lack of attention in housekeeping can lead to serious consequences and the spread of infections, ranging from simple cold or influenza to much more serious pathologies, such as hepatitis. Hotel guests should be very aware of such issues and a sensible hotel owner should put a very high emphasis on the cleaning standards of their hotel.

The reviews left by the guests of the 600 hotels in the database have shown encouraging results, as this is the category with the highest average score, at a very respectable 8.19. In fact, the average score for cleanliness is higher than that of any other factor. The city which scores best is Florence at 8.7, whereas Rome and Palermo score lowest at 8.1. These data suggest that providing guests with a clean room is indeed a priority for operators of the hospitality industry in Italy.

4.2.2 Comfort

The comfort category encompasses all the features of the hotel room that enhance the customer's sense of relief and satisfaction. These can include the size of the hotel room, the quality of the bed and bathroom, the presence of hairdryers, a good number of towels or extra pillows and blankets.

The reviews average, at 7.59, highlight the fact that the Italian hotels considered score reasonably well in this category and provide satisfactorily comfortable rooms. The average is highest in Florence, at 8.2, while Rome is the least appreciated at 7.5.

4.2.3 Services

This category reviews the opinions of customers over services such as parking, Internet connection, satellite TV, etc., if they are provided.

The overall average for this category is at 7.40, Florence being the best city again at 8.1 and Rome scoring worst at 7.1. The services category is the one with the lowest average relative to the others.

4.2.4 Staff

The staff category is centered on the guests' opinion on the personnel employed by the hotel. Not only it is important that the staff, especially those operating at the reception and in the housekeeping, be competent and deliver good results, but they must also be flexible and open to help the customers and, if it is feasible, try to solve any problem that they might encounter. Another important quality is the politeness and positive attitude that should always be expressed by the staff when they relate to the guest.

The data shows that customers of Italian hotels have generally a good opinion of the staff they interact with. The average rating stands at 8.05. Florence again ranks at the top, with an 8.5, whereas it is Palermo that scores lowest at 7.9.

4.2.5 Price for the Quality

The price for the quality category intends to assess the customers' opinion about whether the price they paid for their stay can be perceived as "fair", that is, commensurate to their expectations and to the overall satisfaction they enjoyed in their visit at the hotel.

This is arguably the most important category to assess the overall satisfaction of customers, as it is important to ascertain whether they are satisfied with their purchase or otherwise regret it and, as such, are inclined not to repeat it.

The results are again quite good, as the overall average rating is at 7.54. Florence ranks at the top with a 8.2 and Rome ranks lowest again with a 7.4.

4.2.6 Overview of the Indicators of Customer Satisfaction

As briefly mentioned in the previous paragraphs, the category in which hotels receive on average the highest rating is cleanliness, at 8.19. It is then followed by staff (8.05), comfort (7.59), price for quality (7.54) and services (7.40).

Observing the average rate received by each city, it can be noticed that Florence is by far the most popular city for hotel guests, as it is, quite remarkably, the one that ranks at the top in each of the five categories considered. Turin ranks second (8.08), while Genoa comes third with a 7.96. Then follow Naples (7.90), Venice (7.86), Milan and Palermo (7.76), while, somewhat surprisingly,

due to the high impact of tourism in the city's economy, Rome ranks lowest at 7.66, which is, however, still a good rating in Booking.com's scale.

4.3 Independent Variables: Hotel Characteristics

There are five fixed hotel characteristics which have been included in the database. For fixed characteristics, or factors, I mean those features of a hotel which are to be taken as "given" and are not easy, or, in some cases, even impossible to be modified in the foreseeable future. Finally, the characteristics of the ownership of the hotel were also examined.

As was done before for the satisfaction indicators, I will now proceed to examine all the fixed factors one by one.

4.3.1 Free Internet

It is interesting for the purposes of the research to determine whether the availability of a free Internet connection has a positive or negative effect on customer satisfaction. For this reason, I carefully searched whether there was the presence of this service in the hotels that were examined. For practical purposes, I have considered that a hotel offers a free Internet connection if it gives the customer *any* type of free access to the Internet, be it via a cable or through a Wi-Fi signal. The presence of Wi-Fi areas is a major benefit to customers, due to the relatively large diffusion of laptop computers and smart phones. Some hotels also offer free connection exclusively in public areas. As I considered that most travelers typically need the Internet for short periods of time, I have decided to include those hotels as well.

Overall, 234 out of the 600 hotels included in the database offer a free Internet connection. This means that the 39% of them can boast with this particular service. The percentage is highest in Florence, at 77%. Naples similarly scores high, with a 69%. At the other end of the list, Venice ranks lowest at a mere 20%.

The result suggests that, at least in the sample I have at my disposal, the majority of hotel still charges an additional fee to have access to the Internet, or else does not offer this possibility at all.

4.3.2 No Internet

In fact, for a number of different reasons, which may include technical difficulties, lack of economic resources, or low demand by customers, some hotels elect not to offer their guests the possibility to connect to the Internet in any case. This should be negatively considered by customers, who should then have to rely on less efficient, traditional means of communication and research of information.

The research shows that almost 7% of the hotels in the database do not have an Internet connection (40 out of 600). The percentage is highest in Palermo, at 13%. Remarkably, all hotels in Naples, Florence and Turin have an Internet service, be it free or subject to additional fees.

4.3.3 Free Parking

The presence of a free parking area is important for those customers who reach the hotel by car from their original location, or rent a car to visit the city and surrounding areas. Most hotels are heavily conditioned by their location in offering this service. In fact, a parking space close to the hotel may be extremely expensive or even impossible to build. For this reason, a good number of hotels do not have parking spaces at all, or only allow guests to park if they agree to pay a substantial additional fee. Others, which have no such problems, decide to offer it for free in the hope of gaining more appeal to prospective guests.

Eighty-three of the 600 hotels in the database have a free parking area (13.83%). The percentage is highest in Palermo, at 27%, whereas Milan scores lowest at just 2%. Due to the particular nature of the city of Venice, which can be reached almost exclusively by boat, all hotels there do not offer a free parking space.

It must be noted, however, that there exists a positive correlation between the size of the city and the availability of parking areas, typically because land is cheaper and more accessible in cities with a greater area. The correlation value is 0.35.

4.3.4 Restaurant

The presence of a restaurant within the premises of the hotel can be a positive factor for those customers who do not wish to look for external restaurants and prefer to eat their meals at the

hotel. Some of them, in fact, offer more convenient rates than independent restaurants, and, besides, customer might appreciate the opportunity to reach their rooms right after dinner. This also enables the hotel to offer room services for lunch and dinner.

Almost 36% of the hotels included in the database (214 out of 600) have a restaurant. The percentage is highest in Naples (49%) and lowest in Florence (23%).

4.3.5 Distance from the City Center

Typically, most touristic attraction and business premises are located close to the city centers, which are also the safest and most vibrant areas. Italian cities make no exception and so it is likely that customers might find advantageous to stay in a hotel which is as close as possible to these key locations of the city. The distance from the center was measured by calculating the distance of the hotel from a reference point for each city, which are the following:

CITY	CITY CENTER REFERENCE POINT
Rome	Piazza di Spagna
Milan	Piazza del Duomo
Naples	Piazza del Plebiscito
Venice	Piazza San Marco
Florence	Piazza Santa Maria Novella
Turin	Piazza Castello
Genoa	Piazza De Ferrari
Palermo	Piazza Politeama

The results show that the city which has on average hotels located farthest from the city center is Rome, at 3.0 kilometers of distance. Venice is at the other end, the hotels being on average 700 meters far from Piazza San Marco.

However, even more than in the case of the parking areas, the distance is heavily correlated with the size of the municipality. The correlation value stands at 0.74.

4.3.6 Ownership of the Hotel

The characteristics of a hotel and its perceptions by the public are inevitably conditioned by the ownership. The owners decide the strategy to be pursued with regards to management and

promotion. In the research, I have classified the hotels in three categories: hotels affiliated to a foreign-based chain, hotels affiliated to a Italian chain or unaffiliated hotels.

The purpose of this classification is to investigate whether the affiliation or lack thereof determines a different degree of satisfaction for the customers. It can also be argued that foreign and Italian chains have different corporate cultures, procedures and strategies.

Of the 600 hotels included in the database, 82 (or 14%) were owned or affiliated to chains based outside the Italian territory. The highest percentage of foreign-owned hotels is to be found in Genoa (40%). Italian chains own 107 hotels overall, that is the 18% of the sample. The highest percentage is found in Milan and Genoa, at 26%.

The 68.50% of the hotels included in the database (411 out of 600) are unaffiliated. The highest percentage of unaffiliated hotels is in Venice, at almost 92%. This abnormally high figure can be explained with the historic importance of the hospitality industry for the city, which means that several Venetian families own and manage hotels independently.

5. Empirical Analysis

5.1 Methodology

In order to answer the research questions which have been introduced earlier, it was necessary to carry out a series of statistical analyses on the data set I have built. The relative uniformity of data allowed the use of simple linear regressions, which were calculated using the Stata software.

The dependent variables in all of the regressions are the satisfaction indicators which were previously described, with the addition of a further two variables made up by the combination of these factors. In particular, a normal average index was calculated to account for all five satisfaction indicators indiscriminately; then, a weighted average index was also added to reflect the prominence of the price for the quality indicator in the choices of prospective guests. This index assigns a 0.5 (50%) value to the price for the quality indicator and 0.125 (12.5%) to all other satisfaction indicators.

Subsequently, three sets of linear regressions were conducted, with each set featuring all the hotels in the sample.

The first question concerned itself with the effect of the fixed factors on the satisfaction of customers. To answer it, in all three sets of regressions the satisfaction indicators and the indexes were considered as dependent variables and regressions were calculated for each one of them. The results were then examined in detail to ascertain whether they did or did not support the hypotheses.

The second and third questions both concerned with the effect of ownership on guests. In particular, the second question made the difference between independent and affiliated hotels, whereas the third wanted to investigate the impact of the different nationality of the owners, distinguishing between Italian and foreign chains. To effectively answer those questions, in the first set of regression I used unaffiliated hotels as one of the independent variables, whereas in the second and third set I substituted it with Italian and foreign chains respectively.

Throughout the analysis, the hypotheses were tested at the 5% significance level, which means that those who failed to reach that level of significance were rejected.

5.2 Results and Answers to the Research Questions

For the purpose of the analysis it is sufficient to report in this section only the effect of the fixed factors on the dependent variables only in either one of the sets of regressions, as the coefficients and p-values for such variables vary only very marginally. For simplicity's sake I will use only the results of the first set (see Regressions 1). It should be noted that, in most cases, the significance does not immediately imply a direct relationship between the two variables considered, (e.g. free internet does not directly influence cleanliness) but rather it reflects the general opinion of the customer and show that a hotel is more likely to score a good review if it has or does not have one of the factors.

5.2.1 Free Internet

A free internet service is a benefit to guests and as such, in theory, it should be rewarded by them with higher grades in the reviews. The results of the regressions considered show that this is indeed the case and the hypothesis on this particular factor can be confirmed.

In detail, we can observe the following:

- cleanliness: a significant statistical relationship exists between the availability of free internet and guests' review on cleanliness (p-value = 0.000). The effect is positive (.2807).
- comfort: similarly, the effect is significant (p-value = 0.000) and positive (.3331).
- services: the effect is significant (p-value = 0.000) and positive (.3448).
- staff: the effect is significant (p-value = 0.000) and positive (.2975).
- price for the quality: the effect is significant (p-value = 0.000) and positive (.3511).
- normal average: the effect is significant (p-value = 0.000) and positive (.3156).
- weighted average: the effect is significant (p-value = 0.000) and positive (.3180).

5.2.2 No Internet

In line with what was said previously, the lack of an Internet service should be considered a disadvantage for guests. As such, it should result in less favorable reviews. The results indeed point

in this direction, since for all but one satisfaction indicators the effect is significant and negative.

Here are the detailed figures:

– cleanliness: a significant statistical relationship exists between the lack of Internet service and guests' review on cleanliness (p-value = 0.026). The effect is negative (-.2977).

– comfort: the effect is significant (p-value = 0.000) and negative (-.5462).

– services: the effect is significant (p-value = 0.000) and negative (-.5070).

– staff: the effect is significant (p-value = 0.005) and negative (-.3421).

– price for the quality: this is the only indicator for which the effect is not significant (p-value = 0.223).

– normal average: the effect is significant (p-value = 0.001) and negative (-.3658).

– weighted average: the effect is significant (p-value = 0.014) and negative (-.2796).

5.2.3 Free Parking

A free parking area is one of the services that could be most important for customers. As such, it is logic to think that reviews will be positively influenced by the presence of this factor. The results confirm the hypothesis and the effect is positive and significant in all satisfaction indicators.

In detail, we can observe the following:

– cleanliness: a significant statistical relationship exists between the availability of free parking space and guests' review on cleanliness (p-value = 0.036). The effect is positive (.2241).

– comfort: the effect is significant (p-value = 0.008) and positive (.3511).

– services: the effect is significant (p-value = 0.002) and positive (.3377).

– staff: the effect is significant (p-value = 0.024) and positive (.1921).

– price for the quality: the effect is significant (p-value = 0.000) and positive (.4164).

– normal average: the effect is significant (p-value = 0.000) and positive (.3156).

– weighted average: the effect is significant (p-value = 0.000) and positive (.3505).

5.2.4 Restaurant

The presence of a restaurant should enhance its attractiveness and ensure positive reviews. This seems to be supported by the evidence, as in 5 of the 7 regressions conducted the restaurant factor is positive and significant.

The following can be noticed:

- cleanliness: the relationship is significant (p-value = 0.000) and positive (.2902).
- comfort: similarly, the effect is significant (p-value = 0.000) and positive (.5007).
- services: the effect is significant (p-value = 0.000) and positive (.4041).
- staff: the effect is not significant (p-value = 0.137).
- price for the quality: the effect is not significant (p-value = 0.223).
- normal average: the effect is significant (p-value = 0.000) and positive (.2707).
- weighted average: the effect is significant (p-value = 0.000) and positive (.1971).

5.2.5 Distance

As distance from the city center increases, guests' satisfaction is likely to be negatively affected as the top touristic attraction of a city become more difficult to reach. This claim is supported by evidence, as distance has a significant negative effect in all but two of the indicators.

The following is observed:

- cleanliness: the relationship is significant (p-value = 0.004) and negative (-.0362).
- comfort: the effect is significant (p-value = 0.044) and negative (-.0312).
- services: the effect is significant (p-value = 0.002) and negative (-.0408).
- staff: the effect is significant (p-value = 0.000) and negative (-.0580).
- price for the quality: the effect is not significant (p-value = 0.814).
- normal average: the effect is significant (p-value = 0.003) and negative (-.0326).
- weighted average: the effect is not significant at the 5% significance level (p-value = 0.067).

On the basis of the regressions that were examined so far, I can provide a clear answer to the first research question. All the fixed factors considered have an effect on customer satisfaction. In particular, the presence of free internet, free parking and restaurant have a significantly positive effect. On the other hand, satisfaction decreases with the lack of an internet connection and as distance increases. Thus, the hypothesized relationships have been proved realistic.

5.2.6 Affiliation Effect

Similarly to what has been previously done for the fixed factors, the effect of the affiliation was carefully examined. The observations are the following:

- cleanliness: the effect is significant (p-value = 0.013) and negative (-.1672).
- comfort: the effect is significant (p-value = 0.000) and negative (-.3130).
- services: the effect is significant (p-value = 0.000) and negative (-.2787).
- staff: the effect is not significant (p-value = 0.778).
- price for the quality: the effect is not significant (p-value = 0.191).
- normal average: the effect is significant (p-value = 0.004) and negative (-.1741).
- weighted average: the effect is significant (p-value = 0.016) and negative (-.1444).

In line with the expectations, I find that consumers seem to generally distrust independent hotels and that they generally fail to deliver a service which is comparable to that offered by hotels that are part of a chain. It is then possible to answer the second research question. Guests are indeed more inclined to report a higher satisfaction level when choosing a hotel which is affiliated to a chain.

The second and third sets of regressions were specifically calculated to answer the question as to whether customers are more inclined to rate highly a hotel whose chain is based in Italy or a hotel which is part of an international chain. The results were, as usual, calculated using the satisfaction indicators as dependent variables.

5.2.7 Italian Chains.

Italy has a strong tradition in the hospitality industry and is home to several large chains. However, it is not clear whether customers choose to reward this national heritage in their reviews.

The results were only marginally helpful in clearing up the question. Only one of the regressions show a significant effect at the 5% level, whereas two more are significant at the 10% level. (see Regression 2)

More in detail, the following is observed:

– cleanliness: the effect is not significant (p-value = 0.126).

– comfort: the effect is significant (p-value = 0.043) and positive (.1722).

– services: the effect is not significant (p-value = 0.171).

– staff: the effect is not significant (p-value = 0.435).

– price for the quality: the effect is only narrowly not significant at the 5% significance level (p-value = 0.056). The coefficient is positive (.1402)

– normal average: the effect is not significant (p-value = 0.165).

– weighted average: the effect is not significant at the 5% significance level (p-value = 0.094) but the coefficient is positive (.1125).

5.2.8 International Chains.

International brands such as Best Western, Crowne Plaza and Hilton are well known to travelers and are considered a guarantee of high service standards. It is expected that association with an international chain should bring a benefit to the hotel and make good reviews more likely. Five out of the seven regressions carried out are significant and confirm this hypothesis. (see Regressions 3)

– cleanliness: the relationship is significant (p-value = 0.012) and positive (.1991).

– comfort: similarly, the effect is significant (p-value = 0.000) and positive (.3574).

– services: the effect is significant (p-value = 0.000) and positive (.3845).

– staff: the effect is not significant (p-value = 0.435).

– price for the quality: the effect is not significant (p-value = 0.745).

– normal average: the effect is significant (p-value = 0.005) and positive (.2124).

– weighted average: the effect is narrowly not significant (p-value = 0.057) but is positive (.1431).

From these results, it is possible to answer the third and final research question. It can be concluded that. in the opinions of guests, a difference does exist between Italian and international chains, with a substantial preference for the latter.

6. Concluding Remarks

As it has been shown in the last section, the results of the research have been consistent with the hypotheses that had been formulated. In my opinion, this demonstrates that the method by which the investigation was carried out is valid and can be developed upon.

In comparison to other studies conducted on the topic, the results obtained in this research are consistent with what was found by earlier authors. As it has been shown by the data, the measurement of customers' satisfaction as implemented by Booking.com seems to be particularly effective both in terms of customer response rate than in terms of a realistic assessment of the qualities of hotels. The relationship between service quality and business performance seems evident, as customers show a distinct preference for those hotels that boast fixed factors which are universally deemed beneficial to them. Although not all of them have been specifically the subject of this empirical research, it is clear that hotels which follow practices as suggested by the literature are achieving higher guest satisfaction and performing better. Finally, information technology has had a significant impact on this industry, as it has consequences on almost all operational choices of the hotel management. The availability of online reviews by completely independent consumers is a powerful new tool and can bring either good or bad reputation to a hotel. The effect on pricing is also substantial, as competition increases and margins of profitability decrease. Furthermore, even though customers do prefer hotels owned by chains and the nationality of these chains plays a factor, it has become harder to build brand loyalty in this industry. This can only be achieved if the standard of service is continuously improved and kept at a very high level.

Better and more detailed results could have been obtained in several ways, but there were several limitations I had to face. Firstly, it would have been greatly helpful for the purposes of the research to work on a larger sample of hotels. The methodology of data collection also meant that this process was very time-consuming and not particularly effective. An obvious solution to this problem would have been the opportunity to work with a team of other students, developing a common platform for data collection with, possibly, each one focusing on a different country. Better yet, securing direct cooperation of the company from which I have collected the data would have greatly improved the prospects of this work. Unfortunately, Booking.com never replied to my inquiries.

In an ideal scenario, a very high number of hotels from all over the world should be included in a similarly conducted research. Furthermore, the number of the fixed factors to be analyzed should also be drastically increased, with the purpose of considering every single aspect of the facilities and services offered by the hotel. Several other variables which could have been included come to mind, such as the number of hotel employees, the age of the hotel, the characteristics of the furniture, etc.

The only limit to extending this research is the availability of time and information sources.

Another factor that could improve the understanding of this topic would be carrying out interviews with hotel managers, staff and guests in order to gain first-hand information on how, on the one side, hotel management takes decisions and implements strategies, and on the other, what is actually most important to guests.

The conduction of further empirical and theoretical studies on the issue would, in my opinion, be extremely useful for industry operators as well as being ultimately beneficial to customers.

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8. Appendices

Table A: Descriptive Statistics.

	1 star	2 star	3 star	4 star	5 star	City Total	Avg. Star
Rome	4	27	173	164	26	**400**	3.41
Milan	4	6	14	20	6	**50**	3.36
Naples	0	0	16	17	2	**35**	3.60
Venice	4	7	11	9	4	**35**	3.06
Florence	0	5	13	16	1	**35**	3.37
Turin	0	1	9	4	1	**15**	3.33
Genoa	0	2	5	7	1	**15**	3.47
Palermo	1	2	4	7	1	**15**	3.33
Total	**13**	**50**	**245**	**244**	**42**	**600**	**3.42**

	Cleanliness	Comfort	Services	Staff	Price for Quality	City Average
Rome	8.1	7.5	7.3	8.0	7.4	**7.66**
Milan	8.2	7.6	7.5	8.0	7.5	**7.76**
Naples	8.3	8.0	7.7	8.0	7.5	**7.90**
Venice	8.4	7.7	7.5	8.2	7.5	**7.86**
Florence	8.7	8.2	8.1	8.5	8.2	**8.34**
Turin	8.4	7.9	7.8	8.3	8.0	**8.08**
Genoa	8.3	7.9	7.7	8.2	7.7	**7.96**
Palermo	8.1	7.7	7.5	7.9	7.6	**7.76**
Total	**8.19**	**7.59**	**7.40**	**8.05**	**7.54**	

	Free Internet	Free Internet %	No Internet	No Internet %	Free Parking	Free Parking %	Restaurant	Restaurant %	Avg. Distance	Area (km^2)
Rome	140	35.00%	32	8.00%	69	17.25%	134	33.50%	3.0	1258
Milan	17	34.00%	1	2.00%	1	2.00%	23	46.00%	2.2	183
Naples	24	68.57%	0	0.00%	3	8.57%	17	48.57%	1.5	117
Venice	7	20.00%	4	11.43%	0	0.00%	12	34.29%	0.7	102
Florence	27	77.14%	0	0.00%	3	8.57%	8	22.86%	0.8	157
Turin	6	40.00%	0	0.00%	1	6.67%	6	40.00%	2.0	130
Genoa	8	53.33%	1	6.67%	2	13.33%	7	46.67%	1.8	243
Palermo	5	33.33%	2	13.33%	4	26.67%	7	46.67%	1.0	158
Total	**234**	**39.00%**	**40**	**6.67%**	**83**	**13.83%**	**214**	**35.67%**	*Correlation*	*0.74*

	Foreign Ch.	Foreign Ch. %	Italian Ch.	Italian Ch. %	Unaffiliated	Unaffiliated %	Total	Avg. Reviews
Rome	56	14,00%	74	18,50%	270	67,50%	400	190
Milan	5	10,00%	13	26,00%	32	64,00%	50	526
Naples	5	14,29%	5	14,29%	25	71,43%	35	205
Venice	1	2,86%	2	5,71%	32	91,43%	35	462
Florence	2	5,71%	6	17,14%	27	77,14%	35	480
Turin	5	33,33%	1	6,67%	9	60,00%	15	345
Genoa	6	40,00%	4	26,67%	5	33,33%	15	297
Palermo	2	13,33%	2	13,33%	11	73,33%	15	277
Total	**82**	**13,67%**	**107**	**17,83%**	**411**	**68,50%**	**600**	**260**

Regressions 1 – Unaffiliated Hotels

Dependent variable: Cleanliness (1-10 Rating)

Number of observations: 600
F (6, 593): 12.42
Prob > F: 0.0000
R²: 0.1068
Root MSE: .7432

Cleanliness	Coefficient	Robust Std. Error	t	P>|t|	95% confidence interval	
Free Internet	.2807	.0664	4.22	0.000	.1502	.4112
No Internet	-.2977	.1335	-2.23	0.026	-.5600	-.0355
Free Parking	.2241	.1065	2.10	0.036	.0149	.4332
Restaurant	.2902	.0635	4.57	0.000	.1654	.4150
Distance	-.0362	.0124	-2.91	0.004	-.0606	-.0118
Unaffiliated	-.1672	.0673	-2.48	0.013	-.2994	-.0348
Constant	8.1675	.0747	109.27	0.000	8.0207	8.3143

Dependent variable: Comfort (1-10 Rating)

Number of observations: 600
F (6, 593): 27.40
Prob > F: 0.0000
R²: 0.1911
Root MSE: .8522

Comfort	Coefficient	Robust Std. Error	t	P>|t|	95% confidence interval	
Free Internet	.3331	.0758	4.39	0.000	.1841	.4820
No Internet	-.5462	.1370	-3.99	0.000	-.8152	-.2771
Free Parking	.3511	.1309	2.68	0.008	.0939	.6083
Restaurant	.5007	.0748	6.69	0.000	.3537	.6477
Distance	-.0312	.0154	-2.02	0.044	-.0614	-.0009
Unaffiliated	-.3130	.0764	-4.10	0.000	-.4630	-.1630
Constant	7.5548	.0839	90.03	0.000	7.3899	7.7196

Dependent variable: Services (1-10 Rating)

Number of observations: 600
F (6, 593): 27.42
Prob > F: 0.0000
R²: 0.1929
Root MSE: .7560

Services	Coefficient	Robust Std. Error	t	P>|t|	95% confidence interval	
Free Internet	.3448	.0665	5.18	**0.000**	.2141	.4755
No Internet	-.5070	.1214	-4.18	**0.000**	-.7451	-.2688
Free Parking	.3377	.1084	3.12	**0.002**	.1248	.5505
Restaurant	.4041	.0665	6.08	**0.000**	.2737	.5347
Distance	-.0408	.0131	-3.10	**0.002**	-.0666	-.0150
Unaffiliated	-.2787	.7060	-3.95	**0.000**	-.4174	-.1400
Constant	7.4010	.0798	92.76	**0.000**	7.2443	7.5578

Dependent variable: Staff (1-10 Rating)

Number of observations: 600
F (6, 593): 13.95
Prob > F: 0.0000
R²: 0.1197
Root MSE: .6406

Personnel	Coefficient	Robust Std. Error	t	P>|t|	95% confidence interval	
Free Internet	.2975	.0556	5.35	**0.000**	.1883	.4067
No Internet	-.3421	.1214	-2.82	**0.005**	-.5805	-.1035
Free Parking	.1921	.0848	2.26	**0.024**	.0255	.3587
Restaurant	.0837	.0562	1.49	0.137	-.0266	.1941
Distance	-.0580	.0103	-5.62	**0.000**	-.0783	.0376
Unaffiliated	-.0169	.0601	-0.28	0.778	-.1349	.1011
Constant	8.0533	.0684	117.68	**0.000**	7.9189	8.1877

Dependent variable: Price for the Quality (1-10 Rating)

Number of observations: 600
F (6, 593): 12.00
Prob > F: 0.0000
R²: 0.0817
Root MSE: .7118

Value for money	Coefficient	Robust Std. Error	t	P>|t|	95% confidence interval	
Free Internet	.3511	.0628	5.59	**0.000**	.2277	.4745
No Internet	-.1460	.1197	-1.22	0.223	-.3811	.0890
Free Parking	.4164	.0966	4.31	**0.000**	.2267	.6062
Restaurant	.0630	.0601	1.05	0.295	-.0550	.1810
Distance	.0028	.0118	0.23	0.814	-.0204	.0259
Unaffiliated	-.0834	.0637	-1.31	0.191	-.2085	.0417
constant	7.3941	.0672	110.09	0.000	7.2622	7.5260

Dependent variable: Normal Average (1-10 Rating)

Number of observations: 600
F (6, 593): 18.00
Prob > F: 0.000
R²: 0.1431
Root MSE: .6758

Average	Coefficient	Robust Std. Error	t	P>|t|	95% confidence interval	
Free Internet	.3156	.0602	5.24	**0.000**	.1974	.4339
No Internet	-.3658	.1140	-3.21	**0.001**	-.5898	-.1418
Free Parking	.3059	.0932	3.28	**0.001**	.1229	.4890
Restaurant	.2707	.0575	4.70	**0.000**	-.1576	.3837
Distance	-.0326	.0110	-2.96	**0.003**	-.0543	-.0109
Unaffiliated	-.1741	.0610	-2.85	**0.004**	-.2940	-.0542
Constant	7.7140	.0673	114.51	**0.000**	7.5817	7.8462

Dependent variable: Weighted Average (1-10 Rating)

Number of observations: 600
F (6, 593): 14.57
Prob > F: 0.0000
R²: 0.1160
Root MSE: .6801

Weighted Avg.	Coefficient	Robust Std. Error	t	P>|t|	95% confidence interval	
Free Internet	.3180	.0606	5.25	0.000	.1989	.4371
No Internet	-.2796	.1133	-2.47	0.014	-.5021	-.0572
Free Parking	.3505	.0890	3.94	0.000	.1756	.5254
Restaurant	.1971	.0561	3.51	0.000	.0869	.3074
Distance	-.0193	.0105	-1.84	0.067	-.0398	.0013
Unaffiliated	-.1444	.0598	-2.42	0.016	-.2617	-.0270
Constant	7.5937	.0647	117.44	0.000	7.4667	7.7207

Regressions 2 – Italian Chains

Dependent variable: Cleanliness (1-10 Rating)

Number of observations: 600
F (6, 593): 12.42
Prob > F: 0.0000
R²: 0.1068
Root MSE: .7432

Cleanliness	Coefficient	Robust Std. Error	t	P>|t|	95% confidence interval	
Free Internet	.2807	.0664	4.22	0.000	.1502	.4112
No Internet	-.2977	.1335	-2.23	0.026	-.5600	-.0355
Free Parking	.2241	.1065	2.10	0.036	.0149	.4332
Restaurant	.2902	.0635	4.57	0.000	.1654	.4150
Distance	-.0362	.0124	-2.91	0.004	-.0606	-.0118
Unaffiliated	-.1672	.0673	-2.48	0.013	-.2994	-.0348
Constant	8.1675	.0747	109.27	0.000	8.0207	8.3143

Dependent variable: Comfort (1-10 Rating)

Number of observations: 600
F (6, 593): 27.40
Prob > F: 0.0000
R²: 0.1911
Root MSE: .8522

Comfort	Coefficient	Robust Std. Error	t	P>|t|	95% confidence interval	
Free Internet	.3331	.0758	4.39	0.000	.1841	.4820
No Internet	-.5462	.1370	-3.99	0.000	-.8152	-.2771
Free Parking	.3511	.1309	2.68	0.008	.0939	.6083
Restaurant	.5007	.0748	6.69	0.000	.3537	.6477
Distance	-.0312	.0154	-2.02	0.044	-.0614	-.0009
Unaffiliated	-.3130	.0764	-4.10	0.000	-.4630	-.1630
Constant	7.5548	.0839	90.03	0.000	7.3899	7.7196

Dependent variable: Services (1-10 Rating)

Number of observations: 600
$F_{(6, 593)}$: 27.42
Prob > F: 0.0000
R^2: 0.1929
Root MSE: .7560

Services	Coefficient	Robust Std. Error	t	P>|t|	95% confidence interval	
Free Internet	.3448	.0665	5.18	**0.000**	.2141	.4755
No Internet	-.5070	.1214	-4.18	**0.000**	-.7451	-.2688
Free Parking	.3377	.1084	3.12	**0.002**	.1248	.5505
Restaurant	.4041	.0665	6.08	**0.000**	.2737	.5347
Distance	-.0408	.0131	-3.10	**0.002**	-.0666	-.0150
Unaffiliated	-.2787	.7060	-3.95	**0.000**	-.4174	-.1400
Constant	7.4010	.0798	92.76	**0.000**	7.2443	7.5578

Dependent variable: Staff (1-10 Rating)

Number of observations: 600
$F_{(6, 593)}$: 13.95
Prob > F: 0.0000
R^2: 0.1197
Root MSE: .6406

Personnel	Coefficient	Robust Std. Error	t	P>|t|	95% confidence interval	
Free Internet	.2975	.0556	5.35	**0.000**	.1883	.4067
No Internet	-.3421	.1214	-2.82	**0.005**	-.5805	-.1035
Free Parking	.1921	.0848	2.26	**0.024**	.0255	.3587
Restaurant	.0837	.0562	1.49	0.137	-.0266	.1941
Distance	-.0580	.0103	-5.62	**0.000**	-.0783	.0376
Unaffiliated	-.0169	.0601	-0.28	0.778	-.1349	.1011
Constant	8.0533	.0684	117.68	**0.000**	7.9189	8.1877

Dependent variable: Price for the Quality (1-10 Rating)

Number of observations: 600
$F_{(6, 593)}$: 12.00
Prob > F: 0.0000
R^2: 0.0817
Root MSE: .7118

Value for money	Coefficient	Robust Std. Error	t	P>|t|	95% confidence interval	
Free Internet	.3511	.0628	5.59	**0.000**	.2277	.4745
No Internet	-.1460	.1197	-1.22	0.223	-.3811	.0890
Free Parking	.4164	.0966	4.31	**0.000**	.2267	.6062
Restaurant	.0630	.0601	1.05	0.295	-.0550	.1810
Distance	.0028	.0118	0.23	0.814	-.0204	.0259
Unaffiliated	-.0834	.0637	-1.31	0.191	-.2085	.0417
constant	7.3941	.0672	110.09	0.000	7.2622	7.5260

Dependent variable: Normal Average (1-10 Rating)

Number of observations: 600
$F_{(6, 593)}$: 18.00
Prob > F: 0.000
R^2: 0.1431
Root MSE: .6758

Average	Coefficient	Robust Std. Error	t	P>|t|	95% confidence interval	
Free Internet	.3156	.0602	5.24	**0.000**	.1974	.4339
No Internet	-.3658	.1140	-3.21	**0.001**	-.5898	-.1418
Free Parking	.3059	.0932	3.28	**0.001**	.1229	.4890
Restaurant	.2707	.0575	4.70	**0.000**	-.1576	.3837
Distance	-.0326	.0110	-2.96	**0.003**	-.0543	-.0109
Unaffiliated	-.1741	.0610	-2.85	**0.004**	-.2940	-.0542
Constant	7.7140	.0673	114.51	**0.000**	7.5817	7.8462

Dependent variable: Weighted Average (1-10 Rating)

Number of observations: 600
F (6, 593):   14.57
Prob > F: 0.0000
R²: 0.1160
Root MSE: .6801

Weighted Avg.	Coefficient	Robust Std. Error	t	P>|t|	95% confidence interval	
Free Internet	.3180	.0606	5.25	**0.000**	.1989	.4371
No Internet	-.2796	.1133	-2.47	**0.014**	-.5021	-.0572
Free Parking	.3505	.0890	3.94	**0.000**	.1756	.5254
Restaurant	.1971	.0561	3.51	**0.000**	.0869	.3074
Distance	-.0193	.0105	-1.84	0.067	-.0398	.0013
Unaffiliated	-.1444	.0598	-2.42	**0.016**	-.2617	-.0270
Constant	7.5937	.0647	117.44	**0.000**	7.4667	7.7207

Regressions 3 – International Chains

Dependent variable: Cleanliness (1-10 Rating)

Number of observations: 600
$F_{(6, 593)}$: 11.95
Prob > F: 0.0000
R^2: 0.1053
Root MSE: .7438

Cleanliness	Coefficient	Robust Std. Error	t	P>|t|	95% confidence interval	
Free Internet	.2686	.0660	4.07	**0.000**	.1389	.3983
No Internet	-.3245	.1326	-2.45	**0.015**	-.5848	-.0642
Free Parking	.2259	.1074	2.10	**0.036**	.0149	.4369
Restaurant	.3092	.0613	5.04	**0.000**	.1888	.4296
Distance	-.0383	.0126	-3.05	**0.002**	-.0630	-.0137
Int'l Chain	.1992	.0786	2.53	**0.012**	.0448	.3535
Constant	8.0321	.0596	134.72	**0.000**	7.9150	8.1492

Dependent variable: Comfort (1-10 Rating)

Number of observations: 600
$F_{(6, 593)}$: 25.02
Prob > F: 0.0000
R^2: 0.1862
Root MSE: .8548

Comfort	Coefficient	Robust Std. Error	t	P>|t|	95% confidence interval	
Free Internet	.3095	.0759	4.08	**0.000**	.1605	.4586
No Internet	-.5979	.1364	-4.38	**0.000**	-.8657	-.3300
Free Parking	.3534	.1322	2.67	**0.008**	.0938	.6130
Restaurant	.5386	.0728	7.40	**0.000**	.3956	.6815
Distance	-.0350	.0155	-2.25	**0.025**	-.0655	-.0045
Int'l Chain	.3574	.0943	3.79	**0.000**	.1721	.5426
Constant	7.3025	.0660	110.67	**0.000**	7.1729	7.4321

Dependent variable: Services (1-10 Rating)

Number of observations: 600
F (6, 593): 26.50
Prob > F: 0.0000
R^2: 0.1952
Root MSE: .7549

Services	Coefficient	Robust Std. Error	t	P>|t|	95% confidence interval	
Free Internet	.3275	.0662	4.95	**0.000**	.1975	.4576
No Internet	-.5464	.1204	-4.54	**0.000**	-.7828	-.3100
Free Parking	.3443	.1080	3.19	**0.002**	.1321	.5565
Restaurant	.4285	.0639	6.70	**0.000**	.3030	.5540
Distance	-.0452	.0132	-3.42	**0.001**	-.0711	-.0192
Int'l Chain	.3845	.0886	4.34	**0.000**	.2104	.5585
Constant	7.1704	.0590	121.54	**0.000**	7.0546	7.2863

Dependent variable: Staff (1-10 Rating)

Number of observations: 600
F (6, 593): 13.98
Prob > F: 0.0000
R^2: 0.1217
Root MSE: .6398

Personnel	Coefficient	Robust Std. Error	t	P>|t|	95% confidence interval	
Free Internet	.3004	.0559	5.37	**0.000**	.1906	.4102
No Internet	-.3375	.1202	-2.81	**0.005**	-.5735	-.1015
Free Parking	.1974	.0848	2.33	**0.020**	.0308	.3639
Restaurant	.0753	.0542	1.39	0.165	-.0311	.1818
Distance	-.0593	.0106	-5.61	**0.000**	-.0801	-.0385
Int'l Chain	.0935	.0812	1.15	0.250	-.0660	.2530
Constant	8.0331	.0487	164.96	**0.000**	7.9374	8.1287

Dependent variable: Price for the Quality (1-10 Rating)

Number of observations: 600
$F_{(6, 593)}$: 10.62
Prob > F: 0.0000
R^2: 0.0792
Root MSE: .7771

Value for money	Coefficient	Robust Std. Error	t	P>|t|	95% confidence interval	
Free Internet	.3104	.0682	4.55	**0.000**	.1765	.4442
No Internet	-.1598	.1183	-1.35	0.177	-.3921	.0726
Free Parking	.4199	.0975	4.31	**0.000**	.2285	.6114
Restaurant	.0975	.0617	1.58	0.114	-.0236	.2187
Distance	.0030	.0119	0.25	0.801	-.0204	.0264
Int'l Chain	.0277	.0850	0.33	0.745	-.1394	.1947
constant	7.3240	.0547	133.81	**0.000**	7.2165	7.4315

Dependent variable: Normal Average (1-10 Rating)

Number of observations: 600
$F_{(6, 593)}$: 17.07
Prob > F: 0.000
R^2: 0.1416
Root MSE: .6763

Average	Coefficient	Robust Std. Error	t	P>|t|	95% confidence interval	
Free Internet	.3033	.0600	5.06	**0.000**	.1855	.4211
No Internet	-.3932	.1132	-3.47	**0.001**	-.6155	-.1710
Free Parking	.3082	.0940	3.28	**0.001**	.1235	.4928
Restaurant	.2898	.0558	5.20	**0.000**	.1803	.3993
Distance	-.0350	.0112	-3.12	**0.002**	-.0570	-.0129
Int'l Chain	.2124	.0754	2.82	**0.005**	.0644	.3605
Constant	7.5724	.0523	144.81	**0.000**	7.4697	7.6751

Dependent variable: Weighted Average (1-10 Rating)

Number of observations: 600
F (6, 593): 13.79
Prob > F: 0.0000
R²: 0.1127
Root MSE: .6814

Weighted Avg.	Coefficient	Robust Std. Error	t	P>|t|	95% confidence interval	
Free Internet	.3059	.0602	5.08	**0.000**	.1877	.4242
No Internet	-.3057	.1123	-2.72	**0.007**	-.5262	-.0852
Free Parking	.3501	.0901	3.89	**0.000**	.1731	.5270
Restaurant	.2177	.0551	3.95	**0.000**	.1095	.3259
Distance	-.0207	.0107	-1.93	0.054	-.0418	.0003
Int'l Chain	.1431	.0752	1.90	0.057	-.0046	.2909
Constant	7.4793	.0512	145.99	**0.000**	7.3786	7.5799