



Article

# The Impact of the Environmental Quality of Online Feedback and Satisfaction When Exploring the Critical Factors for Luxury Hotels

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Abstract: The tourism sector is undergoing many very significant changes. In addition to adapting to an interactive society, the use of quality must be incorporated as a competitive strategy. It also has the challenge of promoting excellence. The Internet is an easily accessible source of information and by using it, hotel establishments can easily find out their consumers' requirements. This document aims to explore the main factors for luxury hotels that affect tourist satisfaction by studying users' online reviews. This research investigates the importance of opting for a competitive strategy of excellence, which specializes in total customer satisfaction. To do this, this research analyzes the comments made on Internet by tourists at luxury hotels and uses the QSR (Qualitative Solutions and Research International) qualitative analysis software called NVivo to study the comments made when the tourists are highly satisfied. From this analysis, the items that these types of tourists value most highly are identified.

**Keywords:** tourism management; tourism 2.0; satisfaction; online reputation; online reviews; word-of-mouth communication

## 1. Introduction

In recent years, the tourism sector has been undergoing significant changes that have been largely brought about by the rapid development of ICTs (Information and Communication Technologies). In particular, the appearance of Web 2.0 has been a real revolution for this sector. which is a very competitive market, and therefore must adapt to the needs of the increasingly digital traveler [1].

This trend gives new vocabulary terms, such as tourism 2.0 or travel 2.0. The new era of Internet 2.0 is based on social interaction, which means sharing information and tourists experiences online. New ways of communication between real and potential consumers are being created in order to share information about a product or brand. This is called E-Wom, which is traditional "word of mouth" communication, but done on the Internet. This new way of communicating using the Internet is more powerful than traditional word-of-mouth and has a much greater reach to potential clients [2].

In addition, certain key elements for the company, such as corporate reputation, are also altered. This intangible element of the company can be transformed by online reputation. Online reputation has important repercussions for companies, and, even more so, for establishments in the tourism sector. The Internet contains several travel portals and specific web pages where users can give their opinions about tourism services [3], one of these being the TripAdvisor portal. In many of these, besides being

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able to share information about the trip, or read other travelers' information, bookings can also be made [4].

Because of this, companies' marketing strategies are concentrating more than ever on "Customer Satisfaction". Not satisfying the customer not only means the loss of one loyal customer, but negatively influences possible potential clients. Over the years, different methods have been used to evaluate quality of service and by using these quality checks, companies can see whether the client's expectations were fulfilled and also identify any dissatisfaction. Nowadays, companies that are aware of their clients' Internet activity can take advantage of it. To do this, they must identify the virtual comments, which indicate what could have been done better, or what the users valued highly about the company [5].

This new context of online tourism is based on social interaction between travelers. The development of ICTs has allowed consumers to easily identify, personalize, and buy tourism products using the Internet. In order to do this, companies must have an active position in the communication network. In order not to gain a bad online reputation, organizations must learn to relate to their different users by listening to them in order to meet their expectations [6].

It can be seen to be not a choice, but a duty to know what is being said about one's own establishment. In order to find out, there are various free and paid tools that can help online reputation management and monitor what users say about an enterprise. The current interactive marketplace presents a very competitive environment for any company, and even more so for the tourism sector. As well as adapting to this interactive environment, a company must incorporate the idea of quality and environmental health as a competitive strategy and strive for excellence in all areas. The Internet is an easily accessible source of information, so it is easy to identify the consumers' demands. Any possible shortcomings experienced by the consumer can be identified by analyzing their comments on the Internet. Once shortcomings have been identified, appropriate measures can be taken to achieve maximum tourist satisfaction.

This is an important area of study because TripAdvisor opinions are increasingly influencing the decisions taken by tourist, because they seem to agree with the advertisements that are shown [5]. Tourists opinions are taken as believable as they give a personal point of view and are authentic [7]. The open way in which opinions on platforms like TripAdvisor can be shared may give a more objective understanding of tourist's preferences [8].

The objective of this study is to identify and analyze the characteristics that tourists value positively when they classify their stay as excellent. That is, our intention is to discover the satisfaction of a sample of tourists from luxury hotels and observe the comments online that they make.

Luxury travelers have special requirements and look for high-quality experiences. This means personalized services [9]. The luxury segment looks for a unique experience that evokes memorable emotions when traveling [10]. This is the reason that this category has been chosen for the measurements of quality of service and environmental health.

This study deals with the luxury sector, as it is "the pinnacle" of satisfaction. Clients staying at these hotels are clients with high expectations and are aware that "there is nothing better than this". A client of luxury tourist services looks for something that is not evident, that does not follow fashions, and that is different and special [11].

The findings of works that analyze user comments on websites such as TripAdvisor [5,6,8,12], conclude that only a few hotels actively manage their online reputation on these platforms, which means that studies on user comments must gain relevance and be taken into account.

The declarations made when users were satisfied have been specially analyzed in order to identify the elements and factors that are most valued and contribute to customer satisfaction in general, and environmental health and environmental respect in particular. It is about knowing the satisfaction of the client of this type of establishments regarding the responsible use of water, for example with the cleaning of the towels), the absence of noise pollution, the adequate discharge of oil and other contaminating residues, the acoustic respect, selective garbage collection, food, and local employment [13].

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The results found in this study show that the services of the hotel have a large number of positive references for satisfaction of the hotel guests during their stay. This variable is followed by the services provided by the hotel staff. The information found in this work can be very useful for hotel establishments in the luxury category and also for those hotel companies that use a competitive strategy of excellence.

This study therefore has the potential to contribute both in theory and practice. For theory, it tries to explain the behavior and satisfaction of luxury hotel guests. Only a few studies have looked into this area before from the point of view of luxury hotel user opinions on platforms such as TripAdvisor. This study also enriches the existing literature on tourism as it studies user opinions. Previous studies did not take into account the differences of the luxury segment. This means that from a practical point of view, this document could give rise to commercialization and communication with the customers of luxury hotels based on the opinions and satisfaction of previous users.

In the first section, we have presented a theoretical background defining the main concepts for the research. The second section presents the methodologies used, leading to a third section presenting the analysis carried out, together with the results. Finally, the conclusions of the study are presented.

#### 2. Theoretical Framework

# 2.1. Quality of Tourism and Customer Satisfaction

Before buying a product or service, a potential client has expectations about the quality of the product based on their needs, experience, and requirements. Once the purchase is made, the consumer compares the quality they expected with that of the product or service they receive [14]. In this way, a customer will be satisfied when their previous expectations are matched or overcome.

These expectations are formulated in different ways; one of them is the advertising the company uses, which must show, as far as possible, the real product or service it provides. The past experience of a repeat customer and the experience of other clients are also taken into account, which is a phenomenon known as "word-of-mouth". In the virtual world, the comments made on the Internet about the company are also important when it comes to initially identifying where any dissatisfaction of the customer lies, as well as having an impact on potential customers.

The "customer satisfaction" strategy, a term that is frequently used in marketing to see how the products and services provided by a company meet or exceeds the expectations of the client, has been continually used in recent years. There has even been discussion about not only achieving customer satisfaction, but of reaching higher levels, such as delighting or astonishing them. This type of company ideology, which aims to achieve maximum client satisfaction, is justified by the clear advantages it has for the company. This not only means repeated purchases by the client and their corresponding loyalty, but also the transmission of positive comments from these happy customers to future potential customers [15].

There are different models to measure the quality of the service or product. In the service sector, SERVQUAL and SERVPERF are most commonly used. Both models make use of the concepts of dimension and attributes of perceived quality. Numerous empirical investigations have shown the reliability and effectiveness of the measurements used by both models [16].

Companies often use the above techniques by applying the SERVQUAL starting model (see Table 1) to find the degree of customer satisfaction and increase it. If the company succeeds, the customers will most likely become loyal customers. A loyal customer can also bring other important benefits to the company, such as accepting higher prices, increasing cross sales, and giving positive references about the company [17] (see Table 1).

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Author	Investigated Business	Aims	Main Results	Quality of Service Attributes	Scale
Fick and Ritchie 1991 [18]	Airlines, hotels, restaurants, ski stations	Validate SERVQUAL in the tourist industry	Confirm SERVQUAL attributes in the tourist sector	Reliability Safety Tangible elements Response Capacity Empathy	
Knutson et al., 1993 [19]	Hotels	Validate SERVQUAL in the hotel industry	Confirm the 5 SERVQUAL attributes	Reliability Safety Tangible elements Response Capacity SEmpathy	LODGSERV scale
Getty and Thompson, 1994 [20]	Hotels	Construction of a measurement method for the quality of service in hotels	Confirm the LODQUAL method to measure quality of service	Reliability Tangible elements Contacts	LODGQUAL scale
Falces et al., 1999 [21]	Hotels in Madrid	Construct a scale to measure the quality of service perceived by hotel guests	Validate the scale. New quality of service attributes	Staff Tangible elements Organization of services	HOTELQUAL scale
Mei et al., 1999 [22]	Australian Hotels	Find a value for the quality of service	Validate the HOLSERV instrument Tridimensionality of the quality of service	Staff Tangible elements Reliability	HOTELSERV scale

Table 1. Main studies on quality of service in the hostelry sector (Rios and Santomás, 2008).

#### 2.2. Corporate Reputation and Online Reputation

The Royal Academy of the Spanish Language defines reputation in two ways: First, the opinion that one has about someone or something and, secondly, the prestige or esteem that is associated with that person or thing. This concept, when transferred to the business sector, is known as corporate reputation, which can be studied from various points of view, meaning that there is no general or unanimous definition. In addition, it is a very complex concept given its multidimensionality [23–25] and similarity with other terms, such as identity and corporate image [26].

As Norberto Minguez indicates, "the reputation of an organization arises from a mental comparison in an individual's mind of the image of the company". The comparison is made of the characteristics which a client attributes to any company and the values and behavior that the consumer considers appropriate. Minguez concludes that the reputation is not the real image of an organization. However, it is an assessment or a judgment of the image [27].

Ferguson et. al [24] consider business reputation as "knowledge about the true characteristics of a company and the emotions felt towards it by the stakeholders or interest groups of the company" [24]. This definition uses a relational perspective and tells us about the perceptions of the different interest groups. On one hand is the consideration that the internal customers or employees of a company have, and on the other, the reputation from a strictly external point of view. This research studies the second group of interested parties, consumers, and external customers [28].

Due to the intangible value of reputation, it is quite difficult to measure, as well as to put a value on its economic contribution to an organization [29]. However, despite this and the complexity of the term, authors who have dealt with the issue agree that it has a clear competitive advantage for the organization. Various studies confirm the positive returns that are gained from good corporate reputation management, such as an increase in sales and greater customer satisfaction, which results in greater business profits [30].

On the other hand, with the emergence and development of web 2.0, traditional business reputation, or offline reputation, as explained above, is considered obsolete, or evolving and coexisting with online reputation [31,32].

Del Fresno [33] defined online reputation as the result of what previous clients, future clients, employees, etc., say, write, and transmit to others anywhere on Internet social media, based on their direct or indirect feelings and experience with a brand at any time during their relationship.

As Vaquero [6] states, this reputation is the result of good business practices on the Internet. Anton [34] defines it as: "the valuation given to a company from the use or misuse of the possibilities

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offered by the Internet". This shows that corporate communication is a key factor when building online reputation [35].

In business management, online reputation is one of the latest innovative trends [6]. Derived from the use of ICTs, the term online reputation is currently extremely important for companies and, even more so, for establishments in the tourism sector, which has specialized web pages for sharing users' opinions about tourism services [36]. Among the most important are TripAdvisor and Virtual Tourist Melián [3].

Nowadays, companies need to have new skills in order to relate adequately with their stakeholders, who are increasingly well-informed and have greater knowledge available to them. Organizations must learn to relate to their different interest groups by listening to them in order to meet the expectations of their stakeholders [6]. Villafañe [37] highlights the need to maintain a dialogue with the company's stakeholders.

# 2.3. From Word of Mouth (WOM) to Electronic Word of Mouth (EWOM) and Opinion Portals about Tourist Establishments

Traditionally, the greater or lesser satisfaction of clients was expressed with verbal communication known as "word of mouth" (WOM), a means that is known to have considerable influence on client's expectations. At present, and as a result of the technological revolution that has taken place, the traditional concept of "word of mouth" (WOM) has been modified and expanded, resulting in electronic word of mouth (eWOM). This was defined by Henning-Thurau et al. [38] as "any positive or negative opinion made by current, potential or past consumers about any product or company, and which is made available to a multitude of people and organizations by using the Internet".

Sun and Qu [39] point out that "compared to traditional WOM, eWOM is more influential because of its speed, comfort, one-to-many reach, and the absence of human face-to-face pressure". They state that having a good online reputation is even more important than having a good business reputation. Antón [34] expresses this idea by saying: "If an employee shouting that something is wrong when he arrives at the boss's office is considered a whistle, this whistle can now easily join many more and end up causing a deafening noise." Writing and reading anonymous comments on Internet is so quick and easy to do and reaches such a wide audience with such an impact, that it forces companies to take special care with their online reputation, as well as their total corporate reputation.

In this way, the quantitative assessment (the score) of hotels was studied using the quality of the websites [40]. The qualitative analysis (the content of the comments) about user experience at the hotel, published by travelers in different opinion portals, allowed the influencing factors for excellence and satisfaction to be studied in various fields [41], such as environmental health. Therefore, these comments represent a powerful sales tool for hotels that offer experiences of excellence [42], in which the price is not one of the most important points [43].

Many studies have been carried out on different opinion portals about tourist establishments. Stringam and Gerdes [44] evaluated the importance and relationship of ratings in traveler reviews written by users of hotels and services. Using the hotel ratings published by the online travel agency Expedia, the rating or score of four attributes were taken into account using the most-often referenced attributes in the hotel user's comments. These were: The service, the facilities, the cleanliness, and the comfort of the rooms.

The word "staff" is important in all comments and stands out as one of the five most referenced words. Choi and Chu [45] carried out a study in which they analyzed the travelers' feelings about the quality of hotel services and facilities at the three hotel categories in Hong Kong. Using a factor analysis technique, the study generated seven hotel factors from the 33 hotel attributes identified by hotel guests. The seven hotel factors that determined the user satisfaction and their desire to return to the hotels were: "quality of staff service", "room quality", "general amenities", "commercial service", "value", "security", and "facilities" ("Staff Service Quality", "Room Quality", "General Amenities", "Business Service", "Value", "Security', and "IDD Facilities").

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Gândara et al. [46] studied the quality of the guests' experiences in thermal establishments. For this, a case study was carried out for spa hotels in Galicia (Spain). Other studies have shown that the most valued opinions of customers on platforms such as TripAdvisor are about the geographic location of the hotel [47]. Using the comments published on Trivago, Tripadvisor, and Booking.com websites, the most important aspects in the comments, aesthetics, evasion, learning, and entertainment were analyzed and related to the experience [48].

Table 2 shows studies that used content analysis of rated comments on Tripadvisor. Many of them used NVIVO or other statistical software to do the content analysis, whilst others used paper and pencil.

Methodology Author (Year) Subject Area Too1 Analysis of the contents to Content analysis to identify High class hotels in identify the most common O'Connor, 2010 NVIVO 7 the causes that influence the London. causes of satisfaction and [49] guests' satisfaction dissatisfaction. Influence of opinions Survey in USA, Statistical Analysis of the contents to Gretzel and Yoo, published in the web on Australia, Canada identify the guests' profile. 2008 [50] application other potential clients and UK. Analysis of the relationship Comparative analysis of Hotels in Spain and between hotel size and Molinillo et al., STATA v12 hotel scores and tourist Portugal. average traveler's 2016 [51] satisfaction ratings. satisfaction online. Analysis of the relationships Quantitative Study of the value of the that exist between image, reviews of hotels in Callarisa-Fiol et al., Statistical brand from the consumer's knowledge, brand loyalty, Paris and Hong application 2012 [52] perspective. brand quality and the value Kong given by the customer. Guide for tourist attractions Content analysis to identify Investigation of critical managers on how and meet the customer's Guo et al., 2016 [53] NVIVO 10 factors in effective to build an effective future needs for tourist operations and efficient attractions response to comments. Analysis of wildlife tourism An exploratory study of Chengdu National Cong et al., 2014 **NVIVO 8** encounters with giant Park, China [54] endangered species Helsinki (Finland), Size of the risk that tourists Björk & Analysis of blogs about risks Madrid (Spain) and feel and discuss online and "paper and pencil" Kauppinen-Räisänen, and safety in tourist cities Cape town the influence on the city approach 2012 [55] (SouthAfrica) brand name. Text mining techniques to investigate the evolution of Macao gaming Study of the changes in the Wong & Qi, **NVIVO 10** tourism 2005-2013 the contents of online image of the city as a brand. 2017 [56] comments. Study of the differences Comments in Cenni & Goethals. between languages based on NVIVO Translinguistic analysis. English, Dutch and their norms and discursive 2017 [57] Italian.

Table 2. An overview of existing literature and studies using Tripadvisor comments.

# 3. Methodology

After carrying out literature and documentary research on the theoretical concepts of Web 2.0, and especially to tourism 2.0, studies of new trends in corporate reputation were found in the literature. Special interest was paid to how these concepts are interrelated in the tourism business and any new ways of communicating that are derived from them. In addition, the concept of quality was studied, especially the need to measure the quality of tourism services in order to achieve customer satisfaction.

habits.

Once the theoretical framework and the bibliographic reviews were finished, empirical research was carried out on the comments published by travelers on the TripAdvisor portal.

This research was carried out on hotels in the 5-star luxury category in Spain. Travelers who stay in this category of hotels are usually guests with high economic possibilities and who are looking for

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high-quality experiences. Therefore, they tend to have very high expectations for their stay, accepting that they are demanding clients who can be difficult to satisfy. The reason for the choice of this category of hotels for the study on tourist satisfaction is because of the difficulty of achieving high levels of satisfaction with this type of client. If this can be achieved, it is probably because everything is at the highest level of excellence.

The database that was used for the study contained the comments published by tourists on the TripAdvisor travel portal. Visits were valued by the users on the TripAdvisor portal using a Likert scale, where 1 is the lowest score and 5 the maximum. In this way, 5 groups of ratings were established: terrible, bad, normal, very good and excellent, with the latter being the one that will be analyzed in this study.

# 3.1. Study Sample

The total number of 5-star hotels in Spain increased by 3.6% in 2016, reaching 289. This figure had already seen an increase of 2.6% in 2015. These are figures from a study that analyzed the growth of luxury tourism in recent years [58].

In June 2016, the total number of hotel establishments in Spain in the 5 gold stars category was 289, with 44,106 rooms and around 92,000 guests in our country [59].

In order to identify and analyze which items were valued most highly by guests staying in hotels in the luxury category in Spain, the TripAdvisor travel portal was chosen. A representative sample was selected (n = 25) from the total number of hotels in the 5 stars luxury category in Spain on this travel portal. The sample size was determined in consultation with similar studies employing content analysis of TripAdvisor reviews [5]. The sampling was not random and was recommended by TripAdvisor, which featured them because they excelled in quality and satisfaction in previous year, and are therefore currently considered the best luxury hotels in Spain.

### 3.2. TripAdvisor Comments

In addition to providing a platform for reviewing hotels, restaurants, and destinations, the Tripadvisor portal also allows user to evaluate these tourist establishments. Tripadvisor is the most popular online travel community, attracting tens of millions of tourists who share their travel experience with over 47 million monthly visitors [43,60,61].

TripAdvisor was identified as the largest online travel guide in the world by ComScore Media Metrix data. In November 2015, it had more than 320 million comments and opinions about more than 6 million accommodation establishments, restaurants, and attractions. It is also available in 47 countries around the world. Another reason to use this portal was that any user can participate anonymously, unlike other platforms such as Booking.

TripAdvisor is simple to use, and anyone can leave their opinion and rating. This could be a reason that, a priori, there may be certain distrust in the truth of these comments, because readers could think that anyone can make positive or negative comments for personal gain, without having really been to the establishment or experienced the service which is being assessed. However, TripAdvisor argues that the number of comments is so high that a natural balance of comments is established on its own, and that a very high number of false opinions would have to be written to distort the real score.

#### 3.3. Data Collection

The fundamental methodology used in the investigation was a qualitative analysis of the comments made by a representative sample. A representative proportion of 51% of the comments was extracted for investigation from the total number of excellent comments. This representative sample was chosen from the most recently made comments. These recent comments are, in turn, responsible for the hotels being awarded the 2016 Traveler's Choice Award.

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The NVivo10 program was used to analyze the comments. This program provides tools for qualitative analysis. With this program, a total of 5627 comments were analyzed, after being downloaded in 577 PDF files and captured with the NVivo program using NCapture.

After the capture of each of the filtered pages containing the comments expressing excellence for each of the 25 selected hotels, the next step was taken. This was to build a table containing the main words, identified by the frequency with which they appeared in the resources exported to NVivo.

The initial query provided the frequency count of the 1000 most used words, after dismissing prepositions, articles, and some other empty words from the results. Approximately 100 of the most significant words were extracted. In addition, with the references shown by NVivo software, an attempt was made to estimate the references which belonged to each author. A data purification method was used to do this. All the processing phases were used to try to reduce the number of words, whilst preparing the data for analysis and final interpretation. The next phase consisted of grouping the nouns with compatible meanings. Therefore, the first segmentation criterion was to choose comments in the Spanish language. The second criterion was to take a representative sample from all the excellent comments published. Thus, a representative sample of the most current comments, equating to 51% of the total number of all the excellent comments published for each hotel, was extracted. The third step was to eliminate all data with incomplete values, since these do not contain relevant information for this study. In this way, 'useful' reviews (that is, content labeled as useful by users) were separated from other comments, as they contained valuable information for potential visitors.

The 25 leading hotels used in this study are in different parts of the Spanish territory. For each hotel, a large number of excellent comments were found, and a representative proportion of 51% of all the excellent comments was extracted from the total number of 11,032. This representative sample corresponds to the most recent comments in time. In this way, a total of 5627 comments are obtained for the study. The analysis of the comments has been made using the NVivo10 tool, a program that provides tools for qualitative analysis.

# 3.4. Data Analysis

To analyze the qualitative data, content analysis was used to identify the critical factors and to calculate their frequency in the selected reviews. Content analysis is an attribute-based technique that systematically identifies and classifies main focal subjects and evaluates their frequency and other related topics [62]. Qualitative evaluation methods, such as content analysis, are gaining popularity as a means of using data available on the Internet [63]. Content analysis of tourism data can provide a large amount of valuable information [53,64]. It has been used by hospitality and tourism researchers to analyze travel blogs [65], web pages [66], and reviews or complaints [67–69]. For all these reasons, content analysis was appropriate for the data that were collected in this study.

Analysis was carried out using the NVivo 10.0 program, which is an easy-to-use software package for encoding themed data [70]. It allows qualitative research and mixed methods by handling non-numerical data such as interviews, responses to open surveys, opinions, and web content. Using different registers, "consult", "analyze", and "explore", the program helps to easily organize and analyze disorganized information. In addition, it allows the incorporation of material from different formats (PDFs, audio, video, or images, etc.) into nodes.

A node is a word that acts as a container into which words can be grouped. All these words are related to a single subject or research topic. That is, different material that contains the same idea can be gathered into a node. The process of grouping into a node is called coding. Another basic term of the program is the resource. The resources are the materials or documents imported into the program, which are used to carry out the research.

With this software, the reference codes can be consulted, and then models and graphs can be made to represent them. A range of different types of queries can be made, such as finding the frequency of different words in different groups. The nodes can be compared considering the number of

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references they contain. In addition, the software can be used for many other functions, which research may require.

#### 3.5. Validity of the Data

To ensure the validity of the content analysis, a coding system was developed to guide the process. This process was based on the attraction classification of Goeldner et al. [71] and the rules found in related works [72].

To assure the reliability of the content analysis, a coefficient of agreement was used. This is a common index with three conditions [73]. First, the coding process was applied by two different coders who worked independently using the agreed standards. Second, Cohen's Kappa coefficient (K) was calculated and gave a result of 0.80, showing good consistency in the themes and critical factors. Third, both coders reached a final agreement discussing, reaching a consensus on details such as the categorization of the content included in the comments.

The first step in the analysis was carried out using the Nvivo extension for Google Chrome Capture. This allowed all the pages containing the comments for all of the 'excellent' reviews for each of the 25 selected hotels to be captured. After this long process and with the "captures" of the web pages exported into the program, a query for the frequency count of the most used words was made.

In this way, the 1000 most-frequent words were selected. An additional condition for the query was that the words selected had a minimum length of 3 letters. In this process, the words considered "empty words" were saved in a separate folder. These are words that are repeated with a high frequency but that do not contribute any significant meaning to the study. Examples are articles, prepositions, and pronouns. However, these were not the only useless words that we found in our study.

A second analysis was made on the resulting words from the first analysis. In this more detailed word by word analysis, the effective use of the word was identified.

The result is a total of 100 words that have been encoded in NVivo as nodes. It is "large scale" coding, which allows the material from the first screening to be organized into groups. These words are represented very visually in the frequency cloud, which can be seen in Table 3 below, and which can be created by the program itself from the selected words.

In the frequency cloud, the word "room" stands out, because it has the highest frequency value from the resources imported into the software. Others that follow are staff, service, and spa. Broadly speaking, it can be observed that travelers are commenting very positively on the rooms. However, we are not yet able to identify exactly what they are evaluating for each room.

**Table 3.** Application of the data cleansing method in the 100 most frequent words.

Word	Ri	Ri/Rt%	REF NVIVO	K	SC	D%	REAL REFs	U%
Attention	326	56.5%	607	0	0	0.0%	607	100.0%
Attractions	575	99.7%	1828	3	1725	94.4%	103	5.6%
Bar	575	99.7%	1993	2	1150	57.7%	843	42.3%
Bathroom	575	99.7%	1519	2	1150	75.7%	369	24.3%
Beach	531	92.0%	2416	3	1593	65.9%	823	34.1%
Bed	355	61.5%	628	0	0	0.0%	628	100.0%
Better	575	99.7%	6392	6	3450	54.0%	2942	46.0%
Breakfast	472	81.8%	1432	0	0	0.0%	1432	100.0%
Class	169	29.3%	230	1	169	73.5%	61	26.5%
Close	575	99.7%	2359	3	1725	73.1%	634	26.9%
Comfortable	390	67.6%	800	0	0	0.0%	800	100.0%
Concierge	575	99.7%	724	1	575	79.4%	149	20.6%
Courtesy	575	99.7%	624	1	575	92.1%	49	7.9%
Decoration	267	46.3%	416	0	0	0.0%	416	100.0%
Dinner	229	39.7%	365	0	0	0.0%	365	100.0%
	229	39.7 /6	303	U	U	0.0 /6	303	100.0 /6
Ecological	285	49.4%	619	0	0	0.0%	619	100.0%
atmosphere								
Ecological	575	99.7%	1207	1	575	47.6%	632	52.4%
cleaning								
Ecological	575	99.7%	666	1	575	86.3%	91	13.7%
laundry								
Elegant	282	48.9%	544	0	0	0.0%	544	100.0%
Enjoyment	214	37.1%	375	0	0	0.0%	375	100.0%
Environmental	575	99.7%	1834	2	1150	62.7%	684	37.3%
awareness	3/3	99.7%	1834	2	1150	62.770	004	37.3%
Environmental	206	66.00/	707	0	0	0.00/	<b>505</b>	100.00/
health	386	66.9%	787	0	0	0.0%	787	100.0%
Environmental								
quality	391	67.8%	749	0	0	0.0%	749	100.0%
Equipped	164	28.4%	205	0	0	0.0%	205	100.0%
Excellent	575	99.7%	3399	4	2300	67.7%	1099	32.3%
	286	49.6%	433	0	0	0.0%	433	
Exceptional								100.0%
Experience	418	72.4%	1279	0	0	0.0%	1279	100.0%
Exquisite	182	31.5%	294	0	0	0.0%	294	100.0%
Extremely	86	14.9%	90	0	0	0.0%	90	100.0%
Fabulous	223	38.6%	326	0	0	0.0%	326	100.0%
Fantastic	431	74.7%	916	0	0	0.0%	916	100.0%
Gourmet	84	14.6%	144	1	84	58.3%	60	41.7%
Great	277	48.0%	401	0	0	0.0%	401	100.0%
Gymnasium	408	70.7%	873	2	816	93.5%	57	6.5%
Health	100	21 20/	010	0	0	0.00/	210	100.00/
satisfaction	123	21.3%	218	0	0	0.0%	218	100.0%
Healthy food	453	78.5%	1185	0	0	0.0%	1185	100.0%
Helpful	292	50.6%	564	0	0	0.0%	564	100.0%
Homely	188	32.6%	276	0	0	0.0%	276	100.0%
Impeccable	252	43.7%	380	0	0	0.0%	380	100.0%
Impressive	273	47.3%	421	0	0	0.0%	421	
*				0	0			100.0%
Incredible	71	12.3%	90			0.0%	90	100.0%
Internet	575	99.7%	2969	5	2875	96.8%	94	3.2%
Jacuzzi	307	53.2%	428	2	614	143.5%	-186	-43.5%
Kindergarten	262	45.4%	265	1	262	98.9%	3	1.1%
Large	303	52.5%	478	0	0	0.0%	478	100.0%
Led lights	296	51.3%	623	0	0	0.0%	623	100.0%
Like	140	24.3%	164	0	0	0.0%	164	100.0%
Local				6	2			
gastronomy	156	27.0%	247	0	0	0.0%	247	100.0%
Local products	141	24.4%	171	1	141	82.5%	30	17.5%
Location/nature	575	99.7%	2734	2	1150	42.1%	1584	57.9%
Lovely	425	73.7%	878	0	0	0.0%	878	100.0%
Luxury	575	99.7%	2380	2	1150	48.3%	1230	51.7%
Marvelous	298	51.6%	439	0	0	0.0%	439	100.0%
				0				
Vature sensation	285	49.4%	472		0	0.0%	472	100.0%
Nature friendly	473	82.0%	1102	0	0	0.0%	1102	100.0%
Nature views	289	50.1%	525	0	0	0.0%	525	100.0%
Nature views	577	100.0%	2645	2	1154	43.6%	1491	56.4%
Parking	312	54.1%	699	2	624	89.3%	75	10.7%
Perfect	575	99.7%	1290	1	575	44.6%	715	55.4%
Position	467	80.9%	1310	0	0	0.0%	1310	100.0%
Professional	526	91.2%	1228	1	526	42.8%	702	57.2%
Reception	575	99.7%	1313	1	575	43.8%	738	56.2%

Table 3. Cont.

Word	Ri	Ri/Rt%	REF NVIVO	K	SC	D%	REAL REFs	U%
Recommendable	343	59.4%	599	0	0	0.0%	599	100.0%
Recycled water (gardens)	575	99.7%	1520	2	1150	75.7%	370	24.3%
Relationship	236	40.9%	612	0	0	0.0%	612	100.0%
Relax atmosphere	379	65.7%	551	0	0	0.0%	551	100.0%
Responsible shop	249	43.2%	360	0	0	0.0%	360	100.0%
Rest	100	17.3%	134	1	100	74.6%	34	25.4%
Restaurant	575	99.7%	5792	7	4025	69.5%	1767	30.5%
Return	402	69.7%	847	0	0	0.0%	847	100.0%
Room	575	99.7%	6953	8	4600	66.2%	2353	33.8%
Scenery	127	22.0%	160	1	127	79.4%	33	20.6%
Sea	575	99.7%	1705	1	575	33.7%	1130	66.3%
Selective residues	321	55.6%	696	0	0	0.0%	696	100.0%
Service	577	100.0%	6938	7	4039	58.2%	2899	41.8%
Size	168	29.1%	208	0	0	0.0%	208	100.0%
Spa	524	90.8%	3589	6	3144	87.6%	445	12.4%
Spacious	253	43.8%	380	1	253	66.6%	127	33.4%
Special	575	99.7%	1358	1	575	42.3%	783	57.7%
Spectacular	279	48.4%	524	0	0	0.0%	524	100.0%
Staff	577	100.0%	5577	2	1154	20.7%	4423	79.3%
Stay	508	88.0%	1812	0	0	0.0%	1812	100.0%
Style	496	86.0%	634	1	496	78.2%	138	21.8%
Suite	575	99.7%	3518	2	1150	32.7%	2368	67.3%
Super	180	31.2%	237	0	0	0.0%	237	100.0%
Swimming pool	577	100.0%	3597	3	1731	48.1%	1866	51.9%
Terrace	360	62.4%	732	1	360	49.2%	372	50.8%
Trust	575	99.7%	1217	2	1150	94.5%	67	5.5%
Unbeatable	167	28.9%	281	0	0	0.0%	281	100.0%
Unforgettable	136	23.6%	260	0	0	0.0%	260	100.0%
Willing	119	20.6%	149	0	0	0.0%	149	100.0%
100	577		121,835				61,223	

Note: The terms in this table are translations of the original Spanish words.

#### 3.6. Development of a Data Cleansing Method

In the second step of the investigation, the selected words were checked to see if they really belong to the traveler's comments. To do this, a thorough analysis of the comments was made with the corresponding approximate verification of the word frequency. We developed a vote cleansing method to remove the reviewer who has received an abnormal number of helpful votes [4].

In this phase, we wanted to identify the real number of occurrences of the word in the travelers' comments. If the word did not belong to traveler's comment, we had to identify where it came from. It could be a word that is repeated constantly in the TripAdvisor page format itself, or in the hotel page format on TripAdvisor. Examples could be from the description section of the hotels, or on an advertising banner.

As has been mentioned above, earlier studies calculated the reliability was calculated from the agreement between two indicators using the Kappa coefficient proposed by Cohen. This indicator defines a statistical agreement between two investigations [62,74,75]. For this reason, a "data purification method" was developed for this work, which aimed to improve the precision of the word frequency count in user comments and the potential nodes. This method consists of establishing an empirical approximation constant, which has been called K. The objective of K is to eliminate all the words that are mechanically repeated in the different imported resources, that is, in the PDFs captured in Nvivo.

# 4. Results

Therefore, the analysis of the results that starts from K is found using a query that allows the program to search the text. The constant varies for each word, and also for the same word in each hotel under study. The reason that the word behaves differently in each hotel is that each hotel has an

established format on TripAdvisor, which is composed of the exclusive services that each hotel offers and the description of the different hotels. Table 3 shows the words that are accepted with this process and the calculated values for them. The behavior of each of the words and for each hotel can be seen. Thus, a K value is found for each hotel, which is later compared with that of the other hotels. In this way, the average K for all the hotels is calculated in order to obtain the global value (see Equation (1)).

$$K = \sum_{i \neq 1} ki/n \ i = \{1, \dots, n\} \ n = [1, 25]$$
 (1)

Rt is the named given to the total number of resources imported into the NVivo program. In this study, Rt is 577. This means that there are 577 PDFs, in which all the comments used for the analysis are included. On the other hand, Ri is the number of resources in which a specific word appears. In this way, there is a value of Ri for each word, while the value Rt is always the same. That is, the total number of resources extracted for this analysis will always be 577. These data are given by the software. The quotient Ri/Rt, (see third column of Table 3) shows how often a node or word appears compared to the total number of existing resources. The words that appear in all of the resources, or in a very high percentage, are initially suspected of not being exclusively found in the traveler's comment. The subtraction corrector (SC) is a calculation of the constant for each word multiplied by the number of resources in which each word appears (see Equation (2)).

$$SC = K \times Ri$$
 (2)

SC provides an approximate measure of the number of times that the word or node is referenced without the traveler being the author of the reference.

Once K is established and with it the corrective subtraction, it is possible to calculate the waste, D (see Equation (3)).

$$D = SC/Rn \%$$
 (3)

The waste, *D*, is the percentage of references in which the node appears without the traveler being the author of the reference for the total number of references in the NVivo software. In other words, it expresses the percentage of references that does not belong to the traveler.

These data are useful because, as its name indicates, words or nodes with a high value of waste, *D*, can be removed from the study sample. This is because a high value of *D* means that a high percentage of the references that NVivo counted are not part of the tourist's comment. Therefore, many of these nodes will be deleted, in order to only study the comments that were really made by the tourists.

The calculation of the previous data allows us to find the number of real references, and with this, the items in which the travelers really refer to the hotel. In addition, we can see the importance of each item, depending on the greater or lesser frequency with which the item is used. This allows us to identify the most valued items for the guests in this hotel category, which is the original, main aim of this investigation. The real references to the node or the effective number of references to the node in the commentaries of the travelers are calculated by subtracting the subtraction corrector from the number of references in NVivo (see Equation (4)).

$$Rr = Rn - SC \tag{4}$$

Finally, the utility or usefulness percentage (U) is calculated. This value estimates the percentage of real references in the sample, or in other words, the references made by the traveler in the total number of references in NVivo. It is the percentage of references that are used to continue the investigation (see Equation (5)).

$$U = Rr/Rn \%$$
 (5)

The higher the percentage of useful, the more references are real.

In this way, it can be seen that the model works, since 94% of the words are shown to be useful in the first screening. The criterion used to discard any words was the evaluation of two parameters: Percentage waste and real reference, as a consequence of applying the value of *K*. Those words that have a very high waste percentage and/or such a low number of real references are not considered significant for the study.

### 4.1. Grouping Compatible Words

The non-significant words for the object under study were discarded from the second analysis and the frequency with which the travelers mention them was approximated. The resulting words were grouped together. A grouping consists of all compatible words into a node, in order to make the subsequent classification easier. To be compatible the words must have very similar meanings, or one must be a component of the other.

An example of compatible words is elegant and style, which although they do not mean the same thing, style can be elegant. Another example for the case of two words that have very similar meanings is cuisine and gastronomy. The word gourmet, the person who knows a lot about cooking or gastronomy is a compatible word, which is also included in the group, because it is a component of the others.

#### 4.2. Words for Excellence and Satisfaction

A lot of the references that travelers publish in travel portals are the subjective and personal feelings about their experience. These are included in the perception node (see Table 4), which interprets how the trip was viewed as a whole ('stay' node). The references include attributes or verbs that express emotions or sensations that the users had about the room or the hotel.

Unclassifiable elements appeared constantly in all areas of tourist comments. These comments were full of expressions of excellence referring to all parts of the hotel. All these evaluative adjectives were grouped in the node "descriptions of excellence" and are shown in Table 5 below. The most common words used in the comments are best, excellent, fantastic, beautiful, perfect, spectacular, exceptional, great, fabulous, super, and incredible.

These descriptions of excellence that were used in the clients' comments speak positively about the experience at the hotel. The word "stay" or "experience" is often used to talk about the clients' general view of their holiday experience. The guests express positive feelings that are expressed as "wonderful", "impressive", and "unbeatable". These terms are used to express feelings of satisfaction. A consequence of this is the frequency with which the word "return" appears. It shows that a satisfied customer often becomes a loyal customer who wants to return and "come back" to live that "unforgettable" experience again.

As well as using descriptions of excellence, travelers say they have fulfilled their expectations and therefore feel very satisfied with the stay in general and/or the service received.

Guests also express feelings of a high-quality experience when they felt "confidence". This means having felt safe in different ways, that their demands were met, and they trust that things will continue in this way. They felt pampered and important in the experience. Everybody was helpful and the accumulation of the positive stimuli received allowed them to "enjoy" the experience to the full.

The word "recommendable" was used in the same way. As a result of the satisfaction felt with the experience, the client will talk about it to family and friends. This was explained in the previous chapter as the usual way of communicating, known as word-of-mouth or Wom. This term, when transferred to the technological field, such as comments on the TripAdvisor portal, is called EWom, or electronic word-of-mouth. Next, the subnode grouping for words in the satisfaction node is explained [76].

**Table 4.** Nodes, related words, and number of references.

Node	Words	References
Page (1052)	Beach	823
Beach (1953)	Sea	1130
Easling (626)	Feel nature	164
Feeling (636)	Sensation	472
	Healthy food	247
Local Gastronomy (337)	Gourmet	60
	Gastronomy	30
1 (2004)	Position	1310
Location (2894)	Place	1584
	Quiet	787
Relax atmosphere (1372)	Relax	551
	Rest	34
	Confidence	67
	Enjoyment	375
Catisfaction (2005)	Envir. quality	749
Satisfaction (2855)	Recommendable	599
	Return	847
	Satisfaction	218
Company (1524)	Scenery	33
Scenery (1524)	Views	1491
	Large	478
Size (813)	Size	208
	Spacious	127
Stay (3001)	Experience	1279
Stay (3091)	Stay	1812
	Class	61
Style (1362)	Elegant	544
5tyle (1502)	Modern	619
	Style	138

The terms in this table are translations of the original Spanish words.  $\label{eq:spanish}$ 

**Table 5.** Descriptions of excellence grouping node.

Description of Excellence	References		
Best	2942		
Excellent	1099		
Exceptional	433		
Exquisite	294		
Extremely	90		
Fabulous	326		
Fantastic	916		
Great	401		
Impeccable	380		
Impressive	421		
Incredible	90		
Luxury	1230		
Marvelous	439		
Perfect	715		
Special	783		
Spectacular	524		
Super	237		
Unbeatable	281		
Unforgettable	260		
Wonderful	878		
20	12,739		

The terms in this table are translations of the original Spanish words.

# 4.3. Classification and Interpretation of the Nodes

After the different analysis stages and node groupings were carried out, the remaining words were classified.

From the subjective interpretation from reading a lot of travelers' comments and the different analysis and grouping phases, four large groups were obtained for tangible elements, which were the staff node, the facilities node, the rooms node, and the location node. Each of these large groups has a group of attributes, which are the intangible elements of the comments. Each of the nodes therefore has other sub-nodes included in a main node (see Figure 1).

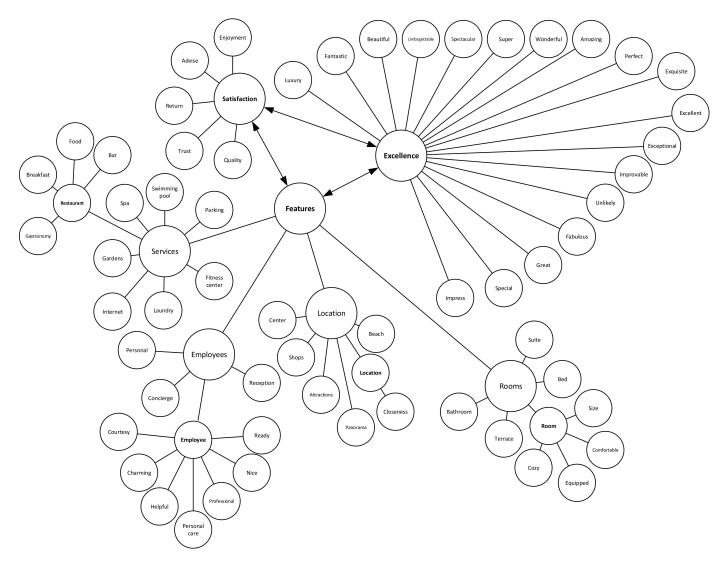


Figure 1. Location node (Source: Author's own).

#### 4.3.1. 'Staff' Node

After the "descriptions of excellence" node, the staff node is the one that has the largest number of real references. The hotel employees are referred to in most of the customer comments, which describe the positive attitude of the hotel staff generally or specifically. The reception and the concierge departments are usually mentioned. These are the two departments that have most contact with the guests and who are on hand to satisfy any of the guest's needs or requests.

Among the characteristics that are most valued for the hotel staff is "kindness" (see Table 6). This means that the staff behaves politely to please the guests in a smiling and pleasant manner. The "helpful", "landscape", and courteous" nodes are included in this node. In the same way, guests positively value a personal "relationship" with the staff, who are always polite, but not distant. Another highly valued feature by guests is the "professionalism" of hotel employees. That is, they are trained, competent, and "willing" to help the guest (see Table 6).

Hotel Staff Node	
Concierge	149
Personnel	4423
Reception	738
Total Number of references	5310
Hotel Staff Node Descriptions	
Absence pollution	49
Attention	607
Helpful	564
Landscape	525
Pleasant	1102
Professional	702
Relationship	612
Willing	149
Total Number of references	4310

Table 6. Hotel staff node grouping.

The terms in this table are translations of the original Spanish words.

# 4.3.2. 'Services' Node

All the different elements that make up the hotel are considered in the services node, from basic ones, such as breakfast or the hotel's gastronomy in general, to some special ones that are not found in all types of hotels, such as a spa. However, "service" can also be understood to include the jobs done by the hotel employees. This means that a small number of the references in this group could refer to the hotel staff. Even so, all the references in this node were included because the difference in meaning would not be much greater if they were removed, and relevant items could be lost.

The different gastronomic services at the hotel were included in the gastronomy sub-node. Gastronomy is frequently referred to in the comments for the services offered by a hotel, as it covers one of the most basic needs of any tourist or person, which is to eat.

Two more interesting services/elements of the hotels are the spa and the gardens, each of which has its own sub-node.

Tourists at this type of hotel highly value a spa in which they can receive different types of beauty and relaxation treatments. These hotel users like to take care of their image and health. Besides being relaxing, a spa can also be an alternative activity when the weather is bad, and it is more difficult to visit the city or go to the beach.

Travelers also highly value gardens at the hotel. Nature helps guests feel relaxed and calm and so gardens can be a key factor for guests wanting to rest. Taking a walk around the hotel, walking through the gardens, and interacting with nature can help people feel better.

The most highly valued attribute for hotel services is the "style" achieved with "details". This means that it is very important that the style chosen by the hotel is adequate and consistent. Elegance with a modern touch is positively valued in the comments. However, no one specific style is identified, but style should be felt and seen in all the details of the hotel. Tourists positively value that the hotel has its own personality and that the employees are attentive.

# 4.3.3. Rooms Node

There are a large number of references in this node to the highest room category, which is the suite. This type of room is the largest and the most luxurious a hotel has. Of all the different components that make up the room, the most basic receive the most comments, which are the bed and the bathroom. For these elements, comfort and spaciousness are the terms most highly valued. Having a terrace, which contributes to a feeling of spaciousness, is also very positively valued. Spaciousness is ultimately the most highly valued attribute for a room.

As seen above, the most valued attribute of the room is the size sub-node. Comfort is another highly valued sub-node, which means that the room is pleasant, cozy, and does not lack anything the user needs. Comments received about the rooms included the following: "The rooms were spacious", "Very cozy, impeccable, spacious, have everything", "extremely clean and bright, with good views". The nodes for the hotel in general are also valid for the room node, such as cleaning and details.

#### 4.3.4. "Location" Node

The last of the large groups commented on by travelers was called the location node. This node, with more than 7000 comments, refers to the how well the hotel is geographically placed in its surroundings. This means that for a hotel in a coastal town, being close to the sea or the beach is highly valued. In a city, tourists value that the hotel is in the city center, in a shopping area or near to the city's attractions. This node also includes the "scenery" sub-node, which refers to the views that can be seen from the hotel. For this type of public, the scenery and landscape that can be seen from the hotel is very important.

These attributes can be seen in Figure 1.

These results suggest after classifying each of the nodes, the importance of each one was verified. In order for the traveler's stay to be considered satisfactory as a whole, each of the four nodes in the study must be valued satisfactorily on its own. As shown in Figure 1, the four groups are equally valued in the satisfactory comments made by the guests of the best luxury hotels in Spain.

It can be seen from the empirical study that the most highly valued variable in the comments were the services at the hotel, such as the hotel pool, the spa, and the gardens. The hotel services received the highest number of positive satisfaction references for the guests experience at the hotel [41,77].

This variable is closely followed by the hotel staff. Taking into account that the "service" node also refers to the services carried out by the hotel staff, the real frequency of comments for the staff at the hotel was really higher than the number of references in this node. This variable can be seen to play an important role in the positive reviews by guests. This has already been shown in previous research by the authors Callarisa-Fiol et al. [52]. These authors studied how the satisfaction of the guests is positively influenced by receiving pleasant and efficient service and corroborate the results in this research. O'Connor [5] also showed that guests greatly value "staff" during a stay at a hotel.

Subsequently, the most referenced variables by guests in their positive comments are the room and location, with 8184 and 8252 real references.

It can be seen that the results for both are very equal, and that neither of them stands out in a striking way. Therefore, we cannot corroborate the study by Callarisa-Fiol et al. [52] or O'Connor [5], in which the room variable is especially valued by the guests and has a great influence on guest

satisfaction. In this research, the room variable is valued [52] but just as much as the location [47]. These results are in agreement with the work of Fuentes Medina et al. [78] in which an analysis was carried out of the online opinions of users of an important Spanish hotel chain called Paradores, where the hotel room and the position of the hotel were found to be among the most important points. However, this study did find that in agreement with the studies carried out by the above authors, the design, the spaciousness, the decoration, and the furniture of the room are the most referenced and therefore most valued attributes. From the results found, it can be seen that luxury hotel guests consider variables other than price, such as decoration or the furniture in the hotel room [43].

Style is the most highly referenced factor for a hotel. Style means the personality or character of the hotel and the class or the elegance it has. The style of a hotel can be seen to give a lot of satisfaction to the guest in this study. It can be deduced that this is due to the high-quality facilities and services, as there are other attributes, such as cleaning, that are not alluded to so much. This could be because the other, more basic attributes, are already expected to be of an excellent standard for this type of hotel. However, the fact that they are not referenced does not mean that they are not important.

In this study, we could see that there is a relationship between positive comments for hotel location and positive comments for satisfaction of the hotel experience.

In this study, neither the price nor quality–price ratio was taken into account for this category of travelers. In an analysis of the negative comments, if the hotel experience is well below expectations, price or value for money might be commented on. However, no significant references for this were found in this study.

When comparing the items obtained in this analysis with those proposed by TripAdvisor, "location" and "rooms" are specially valued by this type of customer. A large number of comments is also given for "service" node. However, as already mentioned, the "quality–price ratio" proposed by TripAdvisor was not seen in the comments. "Environmental Quality" is commented on, when referring to the general satisfaction experienced by the guests, but not in relation to the price paid.

Likewise, the other item proposed by TripAdvisor as important in guests' comments, "quality of the dream", could be said to have been observed for the node "quality", but no references were made to "dream". Other related items were observed, such as "calm", "relaxation". and "rest", which although closely linked to dream, in this case not only refers to the act of sleeping, but to the hotel experience as a whole. It is possible that TripAdvisor refers to the general relaxation felt by the guest in the hotel. Another attribute that is referred to in TripAdvisor is the "cleanliness". In this study hotel, guests hardly commented on this item in the four main nodes ("local product", "local employees", "facilities", and "responsible room with the environment room"). In the facilities node and for the hotel in general, which is where this item was included, guests did not make many comments about it and it cannot be said to be very remarkable for these travelers. However, the item "style" was frequently commented on.

These results are in agreement with other studies [4] where user comments are taken into account, as they have been shown to be important for future tourists' decision making [1,2,79].

# 5. Conclusions

This document investigated the key factors for user satisfaction at luxury hotels by analyzing the tourists own opinions of the hotel in which they stayed on TripAdvisor. It was found that the largest number of positive references for satisfaction is highly related to the high-quality services that the hotel offers. The action of the hotel staff is also rated highly. Both factors are related as a hotel must have efficient staff who provide excellent service in order to give high quality service.

# 5.1. Main Conclusions of the Study

This article contributes to both the theory and to the practice. As far as theory goes, it is one of the first works that studies the trends in valuing luxury hotels for the satisfaction of its users. It looks

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at a relatively unstudied area, which complements the existing literature on tourism. The findings contribute to understanding the way in which users value a luxury hotel.

Considering the aims of this research, it can be seen that by using empirical research it was possible to understand more clearly what customers in the luxury segment comment on when they are satisfied. Also, the items that were most valued by these hotel guests were identified, which do not coincide in all cases with those proposed by TripAdvisor for general hotel users, but which are important for the luxury sector which we studied. In our study, comments for "price" were absent.

Likewise, there are no references for "ecological cleaning", which contrasts with other research in the bibliographic review and with the TripAdvisor page.

"Ecological cleaning" is generally considered on TripAdvisor as a very important factor for the satisfactory experience of the guests. However, TripAdvisor does not consider "style", which the type of guests in our research consider really important.

With the empirical information from this study, hotels that have a competitive excellence strategy should be able to offer their guests the optimal satisfactory experience.

Clients in the luxury sector and who want to live an unforgettable experience do not take into account the price that must be paid. Some of the items are considered so basic (for example, cleaning, or the quality of sleep), that they are not mentioned in online comments. The quality and satisfaction with environmental health of the hotel experience for these guests is based on items considered superior and subtle, which can only be experienced when the other more basic items are already adequately covered.

'Subtle' items are considered as the details that make a hotel stand out from the normal or usual standard of service or facilities. In order to reach this level of service, hotels should provide a personalized service for the guests. Hotels will only be able to offer guests a special and unique experience by making them feel special and exclusive.

In order to achieve this, the hotel staff are very important, since they are the only element that can be immediately adapted to the needs of each client, giving them an individualized experience appropriate to their individual needs and requirements.

Finally, this paper has implications for designers of hotel review websites. Information is given about how communication managers can identify strong and weak points in their services. They can make the most of the results to understand what makes luxury hotels different, and in this way, the image of the hotel and the hotel resort can be promoted by the user comments.

#### 5.2. Limitations and Recommendations

The use of the data-processing method allowed us to reduce the analysis time. This method helped us to approximate the reality of the sample, and in this way, reduce the time needed to carry out the analysis. However, it is a method of approximation, that is to say, it has an error margin.

The source for this study was a single travel portal, which in our case was TripAdvisor. It would be interesting to extend this work in the future and study another source in the same way. By comparing the results of both studies the conclusions could be confirmed.

It would also be interesting to do a similar investigation as this one on hotels in different categories to compare the results and find out which of the factors are common and which are different for the different categories. In addition, the idea of critical success factors could represent an appropriate development of this study for future research [80].

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#### References

1. Gutiérrez, S.; Torres, N.; Domínguez, N. Análisis con" big data" de las respuestas de los hoteles en TripAdvisor. *Esic Mark.* **2018**, *160*, 339–378.

- 2. Lee, H.; Law, R.; Murphy, J. Helpful reviewers in TripAdvisor, an online travel community. *J. Travel Tour. Mark.* **2011**, *28*, 675–688. [CrossRef]
- 3. Melián González, S.; Bulchand Gidumal, J.; González López-Valcárcel, B. La participación de los clientes en sitios web de valoración de servicios turísticos. El caso de Tripadvisor. *Rev. Anál. Tur.* **2010**, *10*, 17–22.
- 4. Wang, Y.; Chan, S.; Leong, H.; Ngai, G.; Au, N. Multi-dimension reviewer credibility quantification across diverse travel communities. *Knowl. Inf. Syst.* **2016**, *49*, 1071–1096. [CrossRef]
- 5. O'Connor, P. Managing a hotel's image on TripAdvisor. J. Hosp. Mark. Manag. 2010, 19, 754–772. [CrossRef]
- Vaquero Collado, A. La reputación online en el marco de la comunicación corporativa. una visión sobre la investigación de tendencias y perspectivas profesionales. Rev. Estrateg. Tend. Innov. Comun. 2012, 3, 49–63.
  [CrossRef]
- 7. Jeacle, I.; Carter, C. In TripAdvisor we trust: Rankings, calculative regimes and abstract systems. *Account. Organ. Soc.* **2011**, *36*, 293–309. [CrossRef]
- 8. Ayeh, J.; Au, N.; Law, R. "Do we believe in TripAdvisor?" Examining credibility perceptions and online travelers' attitude toward using User-Generated-Content. *J. Travel Res.* **2013**, *52*, 437–452. [CrossRef]
- 9. Yeh, C.C.; Lin, C.J.Y.; Hsiao, J.P.H.; Huang, C.H. The effect of improving cycleway environment on the recreational benefits of bicycle tourism. *Int. J. Environ. Res. Public Health* **2019**, *16*, 3460. [CrossRef] [PubMed]
- 10. Vieira, C. Exclusividade na Bagagem. Revista Host. 2008, 25, 1–7.
- 11. Amaral, N.B.; Loken, B. Viewing usage of counterfeit luxury goods: Social identity and social hierarchy effects on dilution and enhancement of genuine luxury brands. *J. Consum. Psychol.* **2016**, 26, 483–495. [CrossRef]
- 12. Sparks, B.; Bradley, G. A "Triple A" typology of responding to negative consumer-generated online reviews. *J. Hosp. Tour. Res.* **2017**, *41*, 719–745. [CrossRef]
- 13. Torres-Sovero, C.; González, J.A.; Martín-López, B.; Kirkby, C.A. Social–ecological factors influencing tourist satisfaction in three ecotourism lodges in the southeastern Peruvian Amazon. *Tour. Manag.* **2012**, *33*, 545–552. [CrossRef]
- 14. Lovelock, C.H.; Lauren, W. *Principles of Service Marketing and Management*, 2nd ed.; Prentice Hall: Upper Saddle Rover, NJ, USA, 2002.
- 15. Begazo Villanueva, J.D. ¿Cómo medimos el servicio? Gest. Terc. Milen. 2014, 9, 73–81.
- 16. Dos Anjos, S.J.G.; de Abreu, A.F. La medición de la calidad de servicio: Una aplicación en empresas hoteleras. *Rev. Eur. Dir. Econ. Empresa* **2009**, *18*, 175–186.
- 17. Mesén Figueroa, V. Fidelización de clientes: Concepto y perspectiva contable. Tec Empres. 2011, 5, 29–35.
- 18. Fick, G.R.; Ritchie, J.B. Measuring service quality in the travel and tourism industry. *J. Travel Res.* **1991**, *30*, 2–9. [CrossRef]
- 19. Knutson, B.; Stevens, P.; Patton, M.; Thompson, C. Consumers' expectations for service quality in economy, mid-price and luxury hotels. *J. Hosp. Leis. Mark.* 1993, 1, 27–43. [CrossRef]
- 20. Getty, J.M.; Thompson, K. La relación entre calidad, satisfacción e intención de recomendar el servicio a otros. *J. Hosp. Leis. Mark.* **1994**, 2, 3–22.
- 21. Falces, C. La influencia de los scripts en las respuestas de satisfacción del consumidor de servicios turísticos. Ph.D. Thesis, Universidad Autónoma de Madrid, Madrid, Spain, May 1999.
- 22. Mei, W.O.; Dean, A.M.; White, C.J. Analysing service quality in hospitality industry. *Manag. Serv. Qual.* **1999**, *9*, 136–143. [CrossRef]
- 23. Dollinger, M.J.; Golden, P.A.; Saxton, T. The effect of reputation on the decision to joint venture. Strateg. Manag. J. 1997, 18, 127–140. [CrossRef]
- 24. Ferguson, T.D.; Deephouse, D.L.; Ferguson, W.L. Do Strategic Groups Differ in Reputation? *Strateg. Manag. J.* **2000**, *21*, 1193–1214. [CrossRef]
- 25. De Quevedo, E. Reputación y Creación de Valor: Una Relación Circular. Aplicación al Sector Bancario Español. Ph.D. Thesis, Universidad de Burgos, Madrid, Spain, April 2003.
- 26. Shenkar, O.; Yuchtman-Yaar, E. Reputation, image, prestige, and goodwill: An interdisciplinary approach to organizational standing. *Hum. Relat.* **1997**, *50*, 1361–1381. [CrossRef]

Sustainability **2020**, 12, 299 22 of 24

27. Minguez, N. Un marco conceptual para la comunicación corporativa. Zer Rev. Estud. Comun. 2000, 8, 303–321.

- 28. Padma, P.; Ahn, J. Guest satisfaction & dissatisfaction in luxury hotels: An application of big data. *Int. J. Hosp. Manag.* **2020**, *84*, 102318.
- 29. Martín de Castro, G.; López Sáez, P.; Emilio Navas López, J. The role of corporate reputation in developing relational capital. *J. Intell. Cap.* **2004**, *5*, 575–585. [CrossRef]
- 30. No, E.; Kim, J.K. Comparing the attributes of online tourism information sources. *Comput. Hum. Behav.* **2015**, *50*, 564–575. [CrossRef]
- 31. Saura, J.R.; Reyes-Menendez, A.; Palos-Sanchez, P. Are black friday deals worth it? mining twitter users' sentiment and behavior response. *J. Open Innov. Technol. Mark. Complex.* **2019**, *5*, 58. [CrossRef]
- 32. Reyes-Menendez, A.; Palos-Sanchez, P.R.; Saura, J.R.; Martin-Velicia, F. Understanding the Influence of Wireless Communications and Wi-Fi Access on Customer Loyalty: A Behavioral Model System. *Wirel. Commun. Mob. Comput.* **2018**, 2018, 16. [CrossRef]
- 33. Del Fresno-García, M. Cómo investigar la reputación online en los medios sociales de la web 2.0. *Cuad. Comun. Evoca* **2011**, *5*, 29–33.
- 34. Antón Ferremoné, E. Reputación corporativa online: Beneficios para las empresas. *Prestig. Online Mark. Comun. Internet* **2008**, *1*, 1–51. Available online: http://www.prestigiaonline.com (accessed on 23 November 2019).
- 35. Saura, J.R.; Reyes-Menendez, A.; Bennett, D.R. How to extract meaningful insights from ugc: A knowledge-based method applied to education. *Appl. Sci.* **2019**, *9*, 4603. [CrossRef]
- 36. Reyes-Menendez, A.; Saura, J.R.; Filipe, F. The importance of behavioral data to identify online fake reviews for tourism businesses: A systematic review. *PeerJ Comput. Sci.* **2019**, *5*, e219. [CrossRef]
- 37. Villafañe, J. Quiero trabajar aqui: Las seis claves de la reputacion interna. In *La Empresa Dialogante: Reflexiones Sobre Comunicacion y Gestion Empresarial*; Pearson Educación: Madrid, Spain, 2016.
- 38. Henning-Thurau, T. Motive des lesens von kundenartikulationen im internet: Theoretische und empirische analyse. In *Konsumentenverhalten im Internet*; Gabler Verlag: Wiesbaden, Germany, 2004; pp. 171–193.
- 39. Sun, L.B.; Qu, H. Is there any gender effect on the relationship between service quality and word-of-mouth? *J. Travel Tour. Mark.* **2011**, *28*, 210–224. [CrossRef]
- 40. Ríos Martín, M.A.; Palos-Sanchez, P.R.; Cáceres-Genao, M. Valoración de la calidad de sitios web turísticos: Estudio empírico basado en IEW. *Tur. Soc.* **2017**, *10*, 1–32. [CrossRef]
- 41. Limberger, P.F.; Dos Anjos, F.A.; de Souza Meira, J.V.; dos Anjos, S. Satisfaction in hospitality on TripAdvisor. com: An analysis of the correlation between evaluation criteria and overall satisfaction. *Tour. Manag. Stud.* **2014**, *10*, 59–65.
- 42. Friedlander, R.J. Tendencias en la gestión de la reputación y las opiniones online de hoteles. 2012. Available online: http://www.hosteltur.com/185350\_tendencias-gestion-reputacion-opiniones-online-hoteles (accessed on 20 October 2017).
- 43. Guo, Y.; Barnes, S.J.; Jia, Q. Mining meaning from online ratings and reviews: Tourist satisfaction analysis using latent dirichlet allocation. *Tour. Manag.* **2017**, *59*, 467–483. [CrossRef]
- 44. Stringam, B.B.; Gerdes, J., Jr.; Vanleeuwen, D.M. Assessing the importance and relationships of ratings on user-generated traveler reviews. *J. Qual. Assur. Hosp. Tour.* **2010**, *11*, 73–92. [CrossRef]
- 45. Choi, T.Y.; Chu, R.K. Consumer perceptions of the quality of services in three hotel categories in Hong Kong. *J. Vacat. Mark.* **1999**, *5*, 176–189. [CrossRef]
- 46. Gândara, J.M.G.; Brea, J.A.F.; Manosso, F.C. Calidad de la experiencia en los hoteles termales de Galicia, España: Un análisis a través de la reputación online. *Estud. Perspect. Tur.* **2013**, 22, 492–525.
- 47. Amaral, F.; Tiago, T.; Tiago, F. User-generated content: Tourists' profiles on Tripadvisor. *Int. J. Strateg. Innov. Mark.* **2014**, *1*, 137–145. [CrossRef]
- 48. Pine, B.J.; Gilmore, J.H. *The Experience Economy: Work Is Theatre & Every Business a Stage*; Harvard Business Press: Brighton, MA, USA, 1999.
- 49. O'Connor, P. User-generated content and travel: A case study on Tripadvisor.com. In *Information and Communication Technologies in Tourism*; O'Connor, P., Höpken, P., Gretzel, U., Eds.; Springer: New York, NY, USA, 2008; pp. 47–58.
- 50. Gretzel, U.; Yoo, K. Use and Impact of Online Travel Reviews. In *Information and Communication Technologies in Tourism*; O'Connor, P., Höpken, P., Gretzel, U., Eds.; Springer: New York, NY, USA, 2008; pp. 35–46.
- 51. Molinillo, S.; Ximénez-de-Sandoval, J.L.; Fernández-Morales, A.; Coca-Stefaniak, A. Hotel Assessment through Social Media: The case of Trip Advisor. *Tour. Manag. Stud.* **2016**, *12*, 15–24. [CrossRef]

Sustainability **2020**, 12, 299 23 of 24

52. Callarisa-Fiol, L.J.; García, J.S.; Tena, M.A.M.; Coll, S.F. La importancia de las comunidades virtuales para el análisis del valor de marca. El caso de tripadvisor en Hong Kong y París. *Pap. Tur.* **2012**, *52*, 89–115.

- 53. Guo, Y.; Sun, S.; Schuckert, M.; Law, R. Online Feedback and Attraction Management: An Exploration of the Critical Factors in Effective Operations. *Asia Pac. J. Tour. Res.* **2016**, *21*, 883–904. [CrossRef]
- 54. Cong, L.; Wu, B.; Morrison, A.M.; Shu, H.; Wang, M. Analysis of wildlife tourism experiences with endangered species: An exploratory study of encounters with giant pandas in Chengdu, China. *Tour. Manag.* **2014**, *40*, 300–310. [CrossRef]
- 55. Björk, P.; Kauppinen-Räisänen, H. A netnographic examination of travelers' online discussions of risks. *Tour. Manag. Perspect.* **2012**, *2*, 65–71. [CrossRef]
- 56. Wong, C.U.I.; Qi, S. Tracking the evolution of a destination's image by text-mining online reviews—The case of Macau. *Tour. Manag. Perspect.* **2017**, 23, 19–29. [CrossRef]
- 57. Cenni, I.; Goethals, P. Negative hotel reviews on TripAdvisor: A cross-linguistic analysis. *Discourse Context Media* **2017**, *16*, 22–30. [CrossRef]
- 58. The Ostelea School of Tourism & Hospitality. El Turismo de Lujo en España. 2015. Available online: http://www.acpt.cat/images/pdf/informe\_ostelea.pdf (accessed on 10 January 2018).
- 59. Statistical Yearbook of Spain. INE (Instituto Nacional de Estadística). Madrid, España. 2016. Available online: https://www.ine.es/prodyser/pubweb/anuario16/anu16\_indigen.pdf. (accessed on 10 November 2019).
- 60. Filieri, R.; Alguezaui, S.; McLeay, F. Why do travelers trust TripAdvisor? Antecedents of trust towards consumer-generated media and its influence on recommendation adoption and word of mouth. *Tour. Manag.* **2015**, *51*, 174–185. [CrossRef]
- 61. Yoo, K.H.; Gretzel, U. What motivates consumers to write online travel reviews? *Inf. Technol. Tour.* **2008**, *10*, 283–295. [CrossRef]
- 62. Krippendorff, K. Measuring the reliability of qualitative text analysis data. *Qual. Quant.* **2004**, *38*, 787–800. [CrossRef]
- 63. Choi, S.; Lehto, X.Y.; Morrison, A.M. Destination image representation on the web: Content analysis of Macau travel related websites. *Tour. Manag.* **2007**, *28*, 118–129. [CrossRef]
- 64. O'Leary, S.; Deegan, J. Ireland's image as a tourism destination in France: Attribute importance and performance. *J. Travel Res.* **2005**, 43, 247–256. [CrossRef]
- 65. Carson, D. The "blogosphere" as a market research tool for tourism destinations: A case study of Australia's Northern Territory. *J. Vacat. Mark.* **2008**, *14*, 111–119. [CrossRef]
- 66. Hsieh, Y. Hotel companies' environmental policies and practices: A content analysis of their web pages. *Int. J. Contemp. Hosp. Manag.* **2012**, 24, 97–121. [CrossRef]
- 67. Au, N.; Law, R.; Buhalis, D. The Impact of Culture on eComplaints: Evidence from Chinese Consumers in Hospitality Organisations. *Inf. Commun. Technol. Tour.* **2010**, 1994, 285–296.
- 68. Liu, X.; Schuckert, M.; Law, R. Can Response Management Benefit Hotels? Evidence from Hong Kong Hotels. *J. Travel Tour. Mark.* **2015**, *32*, 1069–1080. [CrossRef]
- 69. Schuckert, M.; Liu, X.; Law, R. Hospitality and Tourism Online Reviews: Recent Trends and Future Directions. *J. Travel Tour. Mark.* **2015**, 32, 608–621. [CrossRef]
- 70. Castleberry, A. NVivo 10 [Software Program]. Version 10. QSR International. *Am. J. Pharm. Educ.* **2014**, *78*, 25. [CrossRef]
- 71. Goeldner, C.R. Directions and trends in tourism research: Past, present and future. In Proceedings of the Asia Pacific Tourism Association Fifth Annual Conference, Hong Kong, China, 23–25 August 1999; APTA: Hong Kong, China, 1999; pp. 33–43.
- 72. Potter, W.J.; Levine-Donnerstein, D. Rethinking validity and reliability in content analysis. *J. Appl. Commun. Res.* **1999**, 27, 258–284. [CrossRef]
- 73. Ladhari, R.; Michaud, M. eWOM effects on hotel booking intentions, attitudes, trust, and website perceptions. *Int. J. Hosp. Manag.* **2015**, *46*, 36–45. [CrossRef]
- 74. Fleiss, J.L. Statistical Methods for Rates and Proportions; John Wiley and Sons: New York, NY, USA, 1981.
- 75. Cohen, J. A coefficient of agreement for nominal scales. Educ. Sycholog. Meas. 1960, 20, 37–46. [CrossRef]
- 76. Valls, V.M. Approach by NBR ISO 9001 processes applied to information services. *Ciênc. Inf.* **2004**, *33*, 172–178. [CrossRef]
- 77. González, M.A.; Brea, J.F. Relación entre la calidad de servicio y la satisfacción del consumidor. Su evaluación en el ámbito del turismo termal. *Investig. Eur. Dir. Econ. Empresa* **2006**, 12, 251–272.

Sustainability **2020**, 12, 299 24 of 24

78. Fuentes-Medina, M.; Hernández-Estárico, E.; Morini-Marrero, S. Study of the critical success factors of emblematic hotels through the analysis of content of online opinions: The case of the Spanish Tourist Paradors. *Eur. J. Manag. Bus. Econ.* **2018**, *27*, 42–65. [CrossRef]

- 79. Ye, Q.; Law, R.; Gu, B. The impact of online user reviews on hotel room sales. *Int. J. Hosp. Manag.* **2009**, *28*, 180–182. [CrossRef]
- 80. Ceptureanu, E.G.; Ceptureanu, S.I.; Radulescu, V.; Ionescu, S.A. What makes coopetition successful? An inter-organizational side analysis on coopetition critical success factors in oil and gas distribution networks. *Energies* **2018**, *11*, 3447. [CrossRef]



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