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Service quality in Medellin hotels using perceptual maps

Análisis de la calidad del servicio en hoteles de Medellín usando mapas perceptuales

Analyse de la qualité de service dans les hôtels de Medellin
en utilisant des cartes perceptives

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Abstract

The online comments and assessments made by hotel customers provide relevant information to determine the various dimensions of the service received. In this context, the purpose of this work is to evaluate the quality perceived by national and international guests staying at different hotels in Medellín (Colombia). To this end, the multidimensional scaling technique of perceptual maps was used to apply to 9,153 comments made on the TripAdvisor platform to 57 hotels between 2005 and 2010. The main finding shows that the factors most valued by guests are cleanliness, quality of rest and service above the location, price

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and comfort of the rooms, although these factors differ according to the characteristics of the visitor and the hotel.

Keywords: Quality of service, Hotels, Perception maps, Tourism, Technology platforms.

Resumen

Los comentarios y valoraciones en línea realizadas por los clientes de establecimientos hoteleros ofrecen información relevante para determinar diversas dimensiones del servicio recibido. En este contexto, el propósito de este trabajo es evaluar la calidad percibida por huéspedes nacionales e internacionales alojados en diferentes hoteles en Medellín (Colombia). Para ello, se recurrió a la técnica de escalamiento multidimensional de mapas perceptuales aplicada a 9.153 comentarios realizados en la plataforma TripAdvisor a 57 hoteles entre los años 2.005 y 2.016. El principal hallazgo muestra que los factores que más valoran los huéspedes son la limpieza, la calidad del descanso y el servicio por encima de la ubicación, el precio y la comodidad de las habitaciones; aunque dichos factores difieren según las características del visitante y del hotel.

Palabras clave: Calidad del servicio, Hoteles, Mapas perceptuales, Turismo, Plataformas tecnológicas.

Résumé

Les commentaires et l'évaluation en ligne effectués par les clients des établissements hôteliers offrent de l'information pertinente pour déterminer les différentes dimensions du service reçu. Dans ce contexte, le but de ce travail est d'évaluer la qualité perçue des clients nationaux et internationaux logés dans différents hôtels de Medellín (Colombie). Pour cela, la technique de mise à l'échelle multidimensionnelle des cartes perceptives appliquée à 9 153 commentaires réalisés sur la plateforme TripAdvisor a été utilisée pour 57 hôtels entre les années 2005 et 2016. La principale découverte montre que les facteurs qui valorisent le plus les clients sont la propreté, la qualité du repos et le service au-dessus de l'emplacement, le prix et le confort des chambres; bien que ces facteurs diffèrent selon les caractéristiques du visiteur et de l'hôtel.

Mots clés: Qualité de service, Hôtels, Cartes perceptives, Tourisme, Plateformes technologiques.

1. Introduction

At present, tourism has acquired an enormous socioeconomic relevance, comparable

with other economic activities. Colombia is aware of this dynamic and it became evident how in 2014, the hotel sector contributed with 12.1% of the country's GDP (Revista Dinero, 2015) and in the case of Medellín, it represented 15.1% of the GDP (Cámara de Comercio de Medellín, 2015). In addition to its social contribution as a mechanism to redistribute income by generating unskilled employment in local communities (Mostajo, 2000); and its invaluable contribution to historical preservation and tourism promotion, and thereby attracting investment.

The global presence of tourism is promoted by the accelerated speed of technological developments (Morillo, 2007). It is seen as the advent of information and communication technologies; not only have they accompanied the traditional media, but also have sometimes replaced their function as an advertising method. They have become a tool with great impact on the issue of advertising and marketing, due to their easy access and manipulation by mass consumers, whose interaction is closer regardless of their location. They even play a leading role as a mechanism for knowing, managing and exchanging the factors that determine quality (Deming, 1989; Crosby, Evans and Cowles, 1990).

This dissemination of information makes it necessary to transform the tourism business from the traditional quantitative perspective of intensive resource exploitation towards a new paradigm centered on demand segmentation, the flexibility and diversification of supply and the distribution and incorporation of new technologies (López, 1997). This scenario suggests that tourism firms should move away from price-centered competition to establish their competitiveness focusing on strategic options for differentiation (Camisón and Monfort, 1996), based on the offer of quality products and services that meet the customers' expectations.

Along this line, pioneering studies such as Parasuraman, Zeithaml and Berry's (1988), suggest that the service quality perception is the result of comparing the *ex-ante* expectations of users with regards thereof and the perceptions of the actual service received. López and Serrano (2001), argue that the perception of service is a dynamic element,

since expectations may be different depending on the clients and, in addition, vary over time. Vergara, Quesada and Blanco (2012), argue that service quality appraising has moved from the assessment of customer satisfaction to the relationship of additional specific behaviors that evaluate repurchase intention, loyalty and recommendation by word of mouth and technological means, while Manjarrés (2013), refers to the importance of continuously improving the quality of services offered by hotels.

As for the construct of service quality, Carman (1990) states that there is no consensus neither on its definition nor its measurement. The divergence stems from the dissimilar characteristics inherent to services as opposed to goods (Parasuraman, Zeithaml and Berry, 1985). An additional disadvantage to the intangibility of services comes from the obstacles arising both from the provision and from simultaneous reception thereof (Lloréns, 1994). Notwithstanding, in the literature there are currents that emerge to define quality of service. An initial approximation by Cronin and Taylor (1992, 1994) puts forward the possibility of conceptualizing quality of service only in terms of perceptions on performance and not by expectations. In contrast, authors such as Gronroos (1984), Lethinen and Lethinen (1991) and Lewis (1993), distinguish two fundamental dimensions of service quality: one technical and the other functional. This approach requires reckoning both the design of the service, in its most tangible aspects, and the expectations of consumers as well as the way in which it is offered, and particularly the interaction between the client and the personnel in charge of the contact (Weiermair, 1997). On the other hand, Parasuraman *et al.* (1988) conceptualize the perception of service quality as a general judgment from the consumer regarding the service's excellence or superiority, as a result of comparing users' *ex ante* expectations and perceptions regarding the performance of the service received. This is a complex approach because expectations may vary both according to the clients and over time (Vergara, Quesada and Blanco, 2011).

In this context, quality management plays an important role in the tourism sector to maintain and improve its local and international competitiveness. Even more so, the

growing number of tourists indicates that this industry is evolving, deriving various challenges and benefits, especially in relation to its capacity to adapt to change. The value proposal of a hotel revolves around creating memorable experiences for its guests, and the current mechanism to visualize such a proposal is ratings by stars and vigilance by regulatory agencies. However, the latter presents an irrefutable lack of control and monitoring that guarantees the maintenance of the standards put forward to acquire such a rating, which can create a confusing image for the client upon finding no correlation between reality and what the number of stars promises in terms of quality (Tarí Guilló and Pereira, 2012). That is why researching on the factors determining the guests' perception on the quality of the services received from the hotel sector in Medellín is deemed important.

The general objective is to evaluate the perception of national and international guests about the service quality received during their stay in the city's hotels. This approach is based on perceptions of performance and not on expectations, as proposed by Cronin and Taylor (1992, 1994). This is achieved by using the ratings that TripAdvisor users gave to the perceived quality and infrastructure offered by hotels in the city of Medellín in their host experience. This document applies the multidimensional scaling technique of perceptual maps, derived from psychometrics, and when applied to tourism issues it is comparable with other techniques such as correspondence analysis and structural equations modeling (Marcussen, 2014). By doing so, it is possible to graph the complex multivariate world of consumer judgments to identify similarities or preferences from a set of objects, which corresponds to the quality of service in this case (Hair, Black, Babin, Anderson and Tatham, 2014; Preston, 1999).

To find differentiated effects, the opinions are classified according to the characteristics of the visitor (demand) and the specific hotel (supply). Emphasis is placed on the importance of technology platforms as a means for gathering information in real time on the subject of hotel services quality, and thereafter incorporate the results as part of the hotels' strategic decision-making process.

This work highlights how new technologies bestow greater prominence on guests within relational marketing as well as on the advertising of the establishment. This compels the offer to implement and/or enhance its continuous improvement strategies, particularly regarding quality, with the purpose of creating positive experiences in the guests that result in their perception of the service being adequate, thence becoming a multiplier that enables attracting new customers and retaining the current ones. Thus, a manual collection of 9,153 data taken from the TripAdvisor web browser was carried out, which shows the current importance of *on-line* search engines and their influence on users when choosing from different options for their stay. The data has six factors, grouped into two latent variables: service perception (quality of rest, service and cleanliness) and infrastructure (price, location and comfort of rooms). These variables were rated by the guests based on their experience, which makes it possible to infer the key factors for choosing a hotel, aside from evaluating the perception generated through the experiences of other people in the same place.

From this document's organization standpoint, the first part contains the introduction, the second part presents the empirical studies related to the subject under study, and the third part presents the methodological approach; then, it moves on to the analysis of the results to close up with the conclusions.

2. State of the art: review of studies related to hotel assessments and service quality

Online ratings have become an efficient tool for attracting customers based on the experiences of others, which alongside word-of-mouth, has popularized hotels, restaurants and tourist attractions. This has led entrepreneurs in the sector to improve the products and services offered to potential consumers in order to maintain and increase their status and good recognition (Albrecht, Zemke and Gómez, 1988; Kotler and Armstrong, 2003). Below, some exercises applied at both the country and international levels shall serve as the basis for this study.

2.1. Studies applied in Colombia

Several case studies have been addressed in academic papers. Ballestas, Gonzáles and Gutiérrez, (2012), studied the importance of service quality and infrastructure for guests at five-star hotels in cities such as Santa Marta and Barranquilla; through surveys and using the Hotelqual model, they concluded that the guests' perception corresponds to that of a good image and capacity for attention to the international public. Likewise, Manjarés (2013), analyzed the degree of conformity from guests at the Country International Hotel, where the importance of continuous quality improvement is emphasized as a marketing tool to maintain and attract clients by focusing on experience, thus creating word-of-mouth strategies through anecdotes.

In turn, Palacio, Álvarez, Henao and, Ospina (2015), structured a survey wherein the managers of four-and-five-star hotels in cities such as Pereira, Manizales and Armenia provided information about the methods used to achieve customer satisfaction; market research was amongst the most effective methods. A method that asks customers about their experiences and opinions, showing the importance of contact between the hotel and its customers in order to know first-hand their desires and needs, and thence supply and improve the service provided. Meanwhile, Cadrazco and Santamaría Escobar (2011) lay out the existing gaps in the quality of hotel service in the municipality of Tolú. By means of qualitative methods, they showed that, although many hotels cover certain areas of service in terms of quality, some others are neglected, such as connections with other tour operators in order to expand the portfolio of activities that ensures that guests incorporate experiences into their stay, thusly improving their perception on the quality thereof.

2.2. Studies applied at international level

Online appraising has gained popularity for its contribution to the positioning, recognition and good esteem of a company or product before the public. Furthermore, the fact that online rating is becoming popular among the marketing media changes the per-

ception of the brand and puts the customer in a decisive role. Diana-Jens and Ruibal (2015), show how a good reputation allows establishing higher prices than the competition, hence putting forward the close relationship between the popularity and price variables, and the determining role played by the integral competitiveness of companies in their environment.

For their part, Zhang and Zhao (2009) point out how the brand of a product incorporates a set of physical and socio-psychological attributes that derive into a series of beliefs associated with it; and thereby building an identity that allows consumers to identify and create a relationship that includes loyalty to the product-brand. The aforementioned does not only solidify the business-client bond but also intensely unites the concept that investors and suppliers hold about it.

Halmann, Argollo and Aragão (2009) addressed the concepts of Web 2.0 and the popularity of online assessment and demonstrated the role of the multimedia content available on the Internet, where consumers have a leading role as they can participate and generate content and opinions around companies' offer. In this way, customers contribute to improving the offer of services, which is beneficial for companies that use Web 2.0 as a mechanism to listen to them and recognize non-conformities. Thereby, the concept of Tourism 2.0 arises, which basically consists on using Web 2.0 tools to learn, first-hand, the comments on travel experiences from users of tourism products and services, with the possibility of sharing photos and videos (Ag *et al.* 2013; cited in Agüera, Morales and Cuadra, 2015).

Along this line, Agüera *et al.* (2015) studied Spanish hotels with presence in Punta Cana (Dominican Republic), to highlight the use of social networks and search engines such as TripAdvisor, and thus determine the importance held by internet's constant advance and the role that interactive advertising plays in the perception of customers about the hotel's proposal. The best-rated hotels were those with a 5-star category who also had their own Facebook page in relation to the hotels that shared their Facebook page; aside from the fact that the digital word-of-mouth-strategy and the type of connection

with customers influence the choice of a destination based on the perception of the experiences offered by the establishment. Moral Cuadra, Morales and Agüera (2014) corroborate the above since they concluded that the hotels holding the best scores on search engines had a presence on different social networks, especially Facebook, in contrast to those with the worst scores, which were limited to using their own web page. From this, it is possible to infer that customers prefer to use social networks and search engines rather than using the specific web page of a given establishment.

Notwithstanding, a key element is the veracity of online opinions. In this sense Mellinas, María-Dolores and García (2015), evaluate and exhibit the irregularities found in public information, showing the presence of entities willing to offer rating services in the search engine, thusly creating false opinions; in fact, the British newspaper "The Telegraph" stated that daily around 10% of suspicious opinions are detected (Williams, 2013; quoted in Mellinas *et al.* (2015). Although the search engine claims to have the appropriate security measures in place to prevent false and fraudulent opinions, there are no strategies in place to review the opinions found. Other empirical exercises show biases and traits associated with online consumer commentaries and decision-making scenarios; Jeong and Mindy (2008), conclude that the greater the popularity of the hotel, the higher the perceived level of service. Meanwhile, García-Barriocanal, Sicilia, and Korfiatis (2010), show emotional responses in obtaining conditions associated with assessments. Whereas Sparks and Browning (2011) note that users tend to employ rapid information-processing packages when assessing a hotel. In the work of Ayeh, Au and Law (2013), the issue of credibility was examined, finding the assessments made to have a certain connection between people, namely, they tend to form links with others who resemble them in certain characteristics. Recently, Molinillo, Fernández, Ximénez and Coca (2016), report differences in valuations depending on geographic location, and the existence of higher proneness towards positive hotel ratings.

In summary, the reviewed works show different points of view on the subject, both methodological, contextual and categorical in

their analysis; although they are congruent and relevant concerning continuous quality improvement to provide a better experience to guests, thereby improving the valuation and opinion about the hotel, and hence attaining a positive public perception for the establishment. It should be noted that the results and researchers declare certain restrictions in the information depending on the source of origin.

3. Materials and methods

The methodology used in this work is quantitative and exploratory-descriptive in nature. The collection of secondary information is used, considering the most popular websites concurred by hotel service users, namely: Despegar, Expedia, Trivago, Booking and TripAdvisor; the latter was taken as the main source of information, as it is the site with the highest ranking, the most frequent number of users and due to the availability of information. Here travelers can plan and book their trip based on the advice, options and opinions of other travelers, as well as find hotels and compare prices in different specialized search engines. TripAdvisor is the world's largest travel community, with 340 million unique visitors per month and 350 million opinions and comments on more than 6.5 million accommodations, restaurants and attractions. The websites operate in 48 markets around the world (Tripadvisor.com, 2016).

A sample of 57 out of the 99 hotels in the city of Medellín on the TripAdvisor platform was taken as a reference, which vary in style, categorization, sector and services offered to the public. The selection criteria used consisted on the hotel having at least 20 comments. For each of hotel, six evaluation parameters were collected, as well as the available characteristics of who evaluates (guest) and the place of accommodation (hotel) (Table 1). The data compilation was done manually for each comment, collecting 9,153 comments from users of different nationalities in the period between 2005 and 2016.

Once the information was compiled and refined, the six variables were grouped into two latent groups: service perception (quality of rest, service and cleaning) and infrastruc-

Table 1. Collected Variables

Evaluated Variables	Characteristics of the guest	Characteristics of the hotel
Quality of rest	Year you made the trip	Star Category
Service provided	Who you traveled with or motive for traveling	Hotel chain
Cleanliness	Date of the trip	Price range
Price Rating	Critical level	# of rooms
Condition of the rooms	Nationality	
Location		

Source: Author's own elaboration based on TripAdvisor.com (2016).

ture (price, location and comfort of rooms). This information was cross-referenced with the guest's characteristics and the hotel's to analyze the answers by means of the multi-dimensional scaling technique (MDS), which can be graphed as a perceptual map that represents, on a Cartesian plane, the complex multivariate world of consumer judgments. These serve the purpose of identifying similarities or preferences from a set of objects, which corresponds to service quality in this case (Hair *et al.* 2014; Preston, 1999). This procedure was performed using the SPSS software.

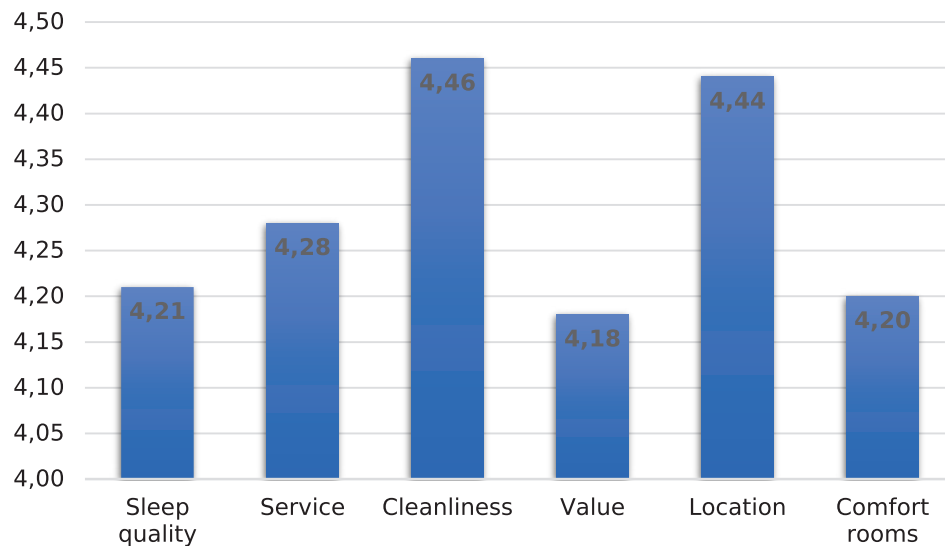
4. Analysis and discussion of results

This section presents the perceptual maps constructed from the average valuations given by the guests in the two latent groups: perception of service (quality of rest, service and cleaning) and infrastructure (price, location and comfort of rooms). The results are displayed from two angles: i) demand, which involves factors associated with the guest, and ii) supply, which accounts for the characteristics related to the hotel.

4.1. Results from the demand standpoint

Overall, the cleanliness variable had the highest average assessment value, followed by the location as shown in Figure 1. Some of these results align with Ballestas *et al.* (2012), which confirms the relevance of their capacity not only regarding infrastructure

Figure 1. General assessments of the variables evaluated



Source: Author's own elaboration based on Tripadvisor.com (2016).

but also service; and above all the quality of the hotel to accommodate guests and provide a comfortable and enjoyable stay, covering the needs integrally.

Nevertheless, when disaggregating these results according to control variables, some differences arise. If the trip's temporary nature is taken into account, from 2005 to April 2016, changes in the valuation of the factors become observable, while maintaining a positive trend towards improvements on location and cleanliness as can be seen in Figure 2. This outcome is similar to the analysis carried out by Manjarrés (2013), when referring to the importance of continuously improving the quality of the services offered by hotels to their guests in order to create loyalty and attract more clients by creating better experiences in them. The change can be perceived over time and the guests' degree of conformity thereon.

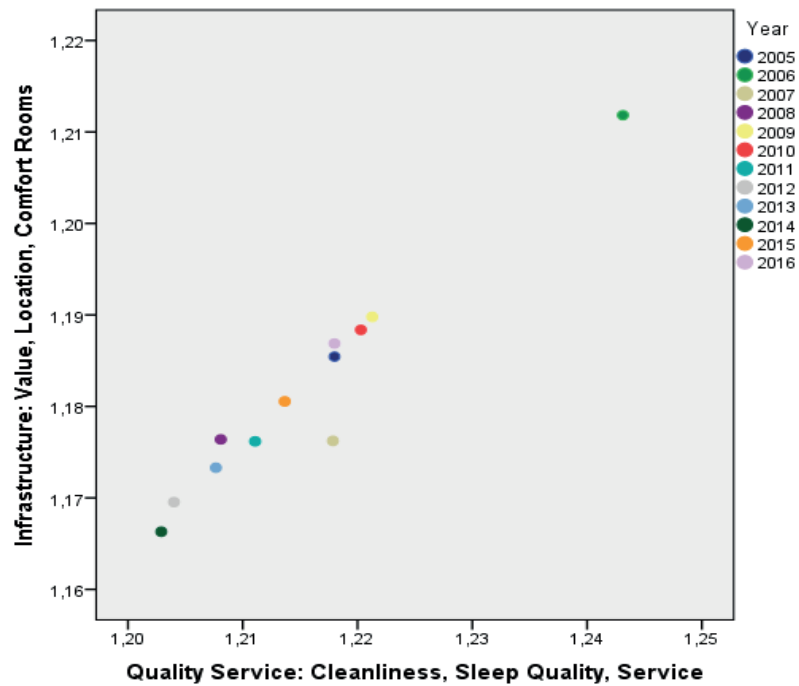
When the guest's companion is taken as the basis for analysis, as shown in Figure 3, it becomes evident how in business trips, both variables obtain the lowest scores. When the reason for the trip is romantic, the perception of the service is more valued than infrastructure. Family travelers rate service and infrastructure variables favorably above average. However, people traveling in pairs or

alone reckon service to be the most important factor.

As for the rating of critics categorized by a range of points, where those with lower scores are considered to have low experience and higher scores as having greater experience, Figure 4 shows that, for the latter, the service is more important than the infrastructure, while the less experienced critics (300 points on the platform) value the infrastructure over service. The perceptual map permits to infer how guests rate the latent variable service perception (cleanliness, rest and care) as well as infrastructure (price, location and comfort) above average.

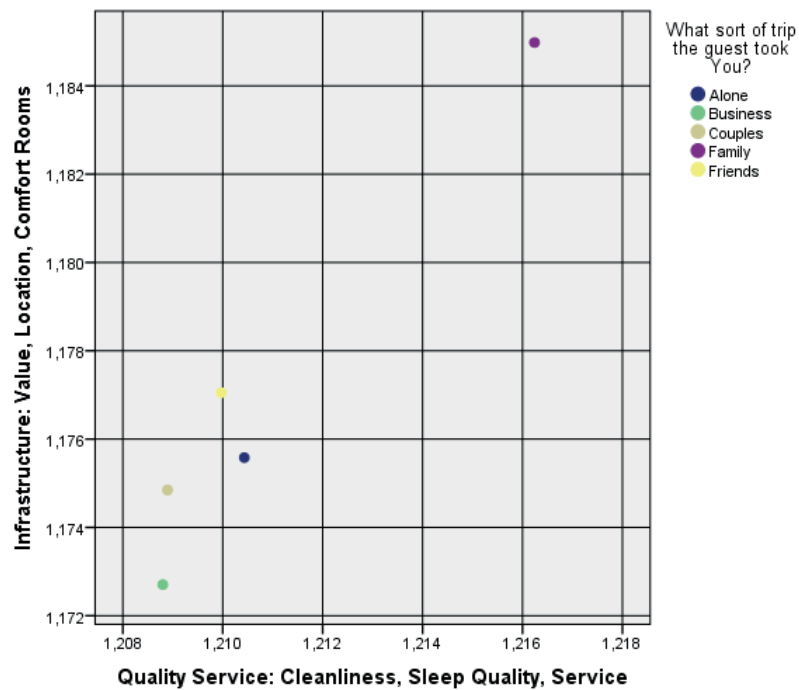
As for the origin of the tourist, national visitors are observed rate both the perception of service and the infrastructure superiorly compared to international guests. The greatest differences in valuation arise when taking the main origins of the guests as a reference, as Figure 5 shall prove. According to geographical origin, Asians have the lowest levels of satisfaction, while Europeans perceive the service's quality as higher. These results show distinctive features similar to those proposed by Molinillo *et al.* (2016), although those differences arise from the point of view of demand, not supply, given that it is a single geographical area that was analyzed.

Figure 2. Year in which guest made trip versus rated variables



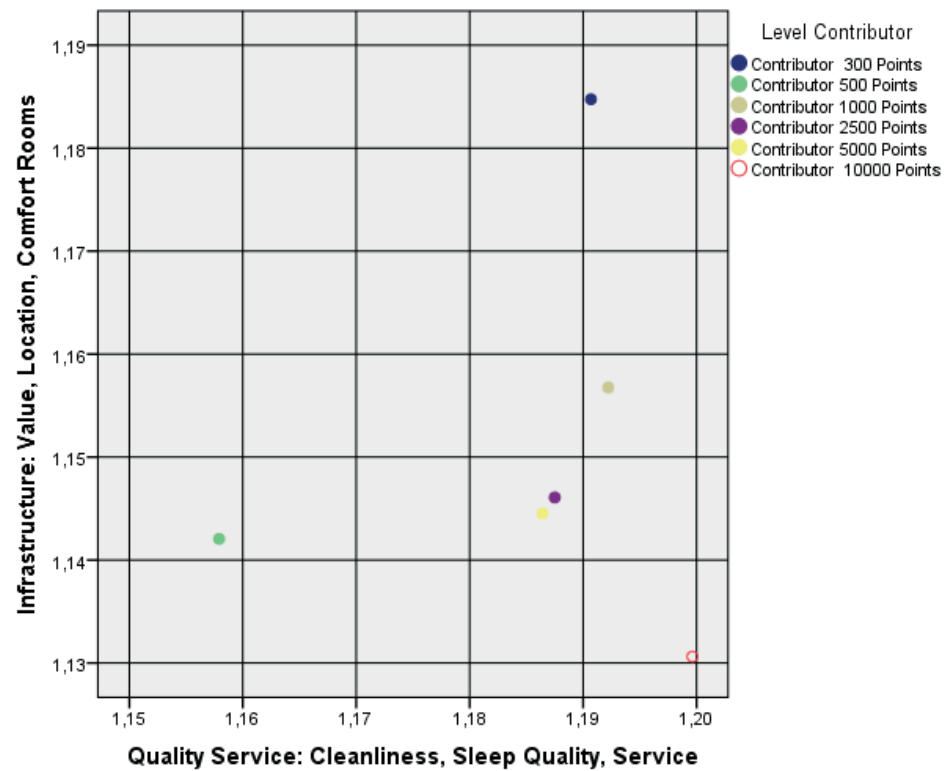
Source: Author's own elaboration based on Tripadvisor.com (2016).

Figure 3. Category reason/companion of the critic in the variables rated



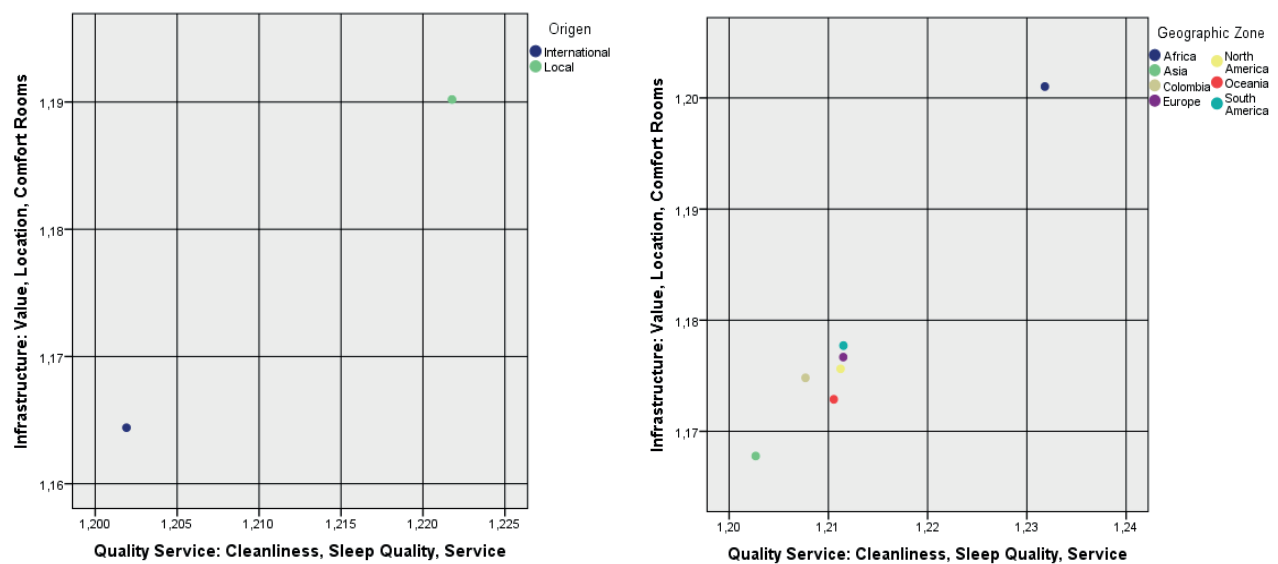
Source: Author's own elaboration based on Tripadvisor.com (2016).

Figure 4. Critical level category in the rated variables

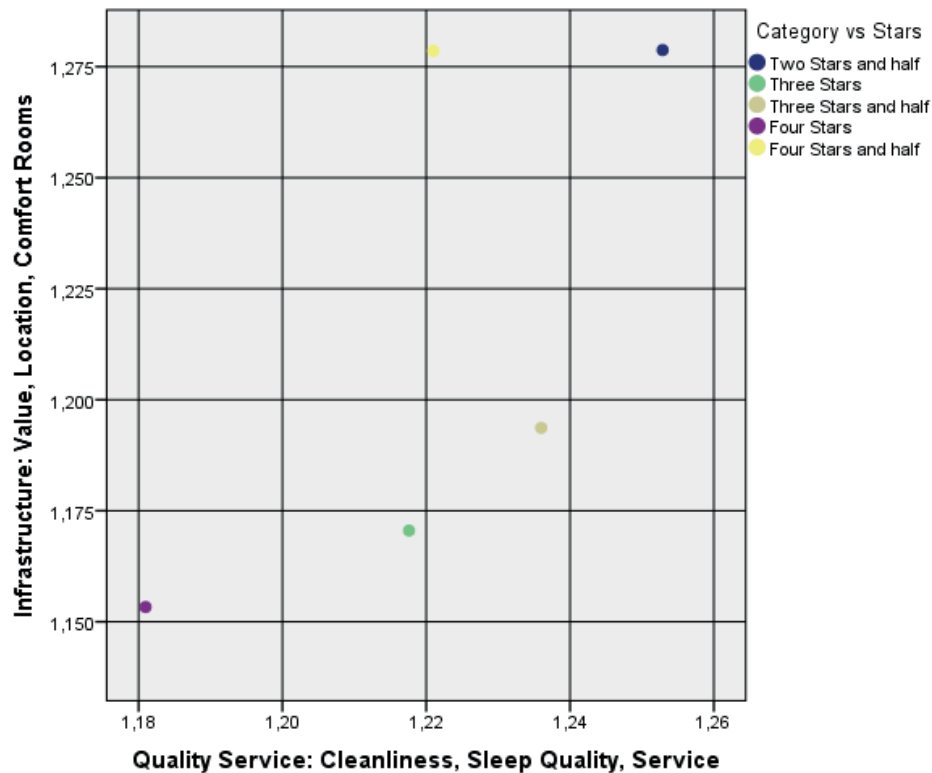


Source: Author's own elaboration based on Tripadvisor.com (2016).

Figure 5. Guests' origin Category in the rated variables



Source: Author's own elaboration based on Tripadvisor.com (2016).

Figure 6. Hotel star rating on rated variables

Source: Author's own elaboration based on Tripadvisor.com (2016).

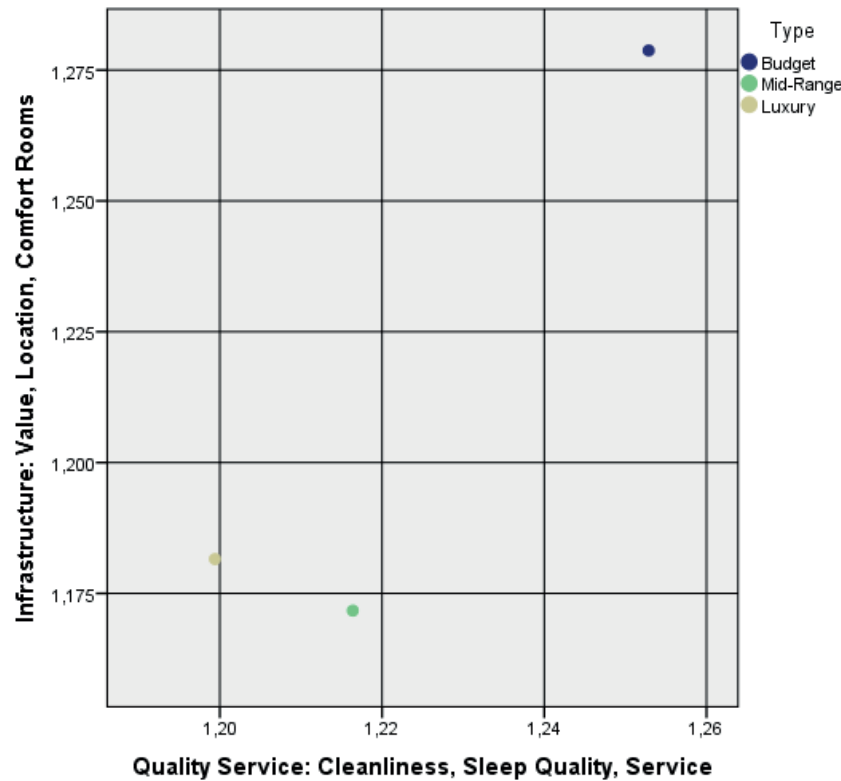
4.2. Results from the supply standpoint

Moving on to the differentiation of the assessments considering the inherent characteristics of the accommodation site, several situations stand out. In terms of the hotel's number of stars, those with the highest rating show the highest mean perception of satisfaction (Figure 6), as noted by Jeong and Mindy Jeon (2008). Nevertheless, this rating did not show the same trend in hotels with the lower number of stars (2.5), as these, for instance, had the second highest satisfaction rating, below those with the highest popularity (4.5). It is also observed that users in 2.5, 4 and 4.5 star hotels appreciate the location of the hotel more. The average satisfaction of the people who rated the 3 and 3.5 star hotels was cleanliness. These results follow the line described in Agüera *et al.* (2015), wherein the rating of hotels by number of stars in 46 Spanish hotels in Punta Cana is analyzed, which yielded a mean of 4.18 in hotels possessing five stars, 3.77 in four-star hotels and 4.00 in three-star hotels.

Now, when considering the style of the hotel, the results lean away from what was proposed by Jeong and Mindy Jeon (2008) and Agüera *et al.* (2015), since a reverse order appeared in this analytical category, as Figure 7 shall display. Thus, economic-range hotels appear with higher average valuations both in service and in infrastructure, followed by middle-range ones as these bear higher valuations than luxury hotels in terms of infrastructure, but slightly lower in service nonetheless. It should be noted that, in this case, the number of comments is ostensibly lower in budget hotels, and this may bias the average values.

In terms of whether or not they belong to a hotel chain, independent hotels are rated higher on average than those of large brands or hotel chains, as seen in Figure 8. This linkage lies in the use of social networks, because independent hotels or small chains have autonomous decisions made by the management of the hotel itself, as opposed to large multinational chains that must follow centra-

Figure 7. Hotel style in the rated variables



Source: Author's own elaboration based on Tripadvisor.com (2016).

lized policies to enter Web 2.0 (Moral Cuadra *et al.* 2014). This paper, compared to the study of Andalusia, shows how guests at independent hotels assign a lower value on the price, while those who stayed at hotel chains value the rooms to a lesser extent.

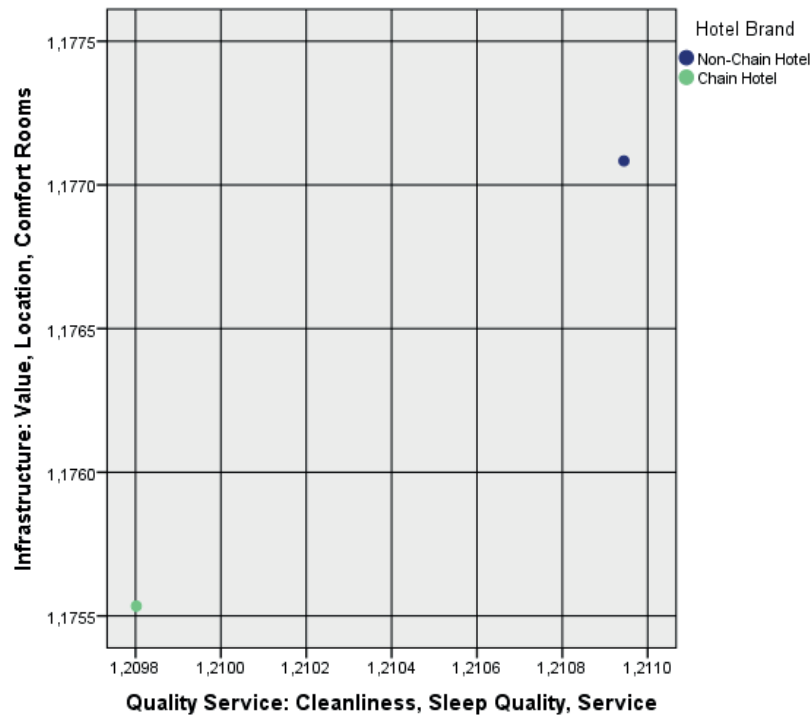
According to the range of prices offered by the different evaluated hotels for a standard room, Figure 9 shows that those with lower rates generally exhibited lower levels of satisfaction.

Lastly, the hotels analyzed were also ranked according to their number of rooms, resulting in hotels with less than 29 rooms accounting for 13%, between 30 and 46 rooms for 11%, between 47 and 96 rooms for 31% and hotels with more than 97 rooms for 45%. Figure 10 shows that smaller hotels, measured by the number of rooms, have the highest average scores for the assessed items, a result consistent with the previous presentation of the number of stars and hotel style.

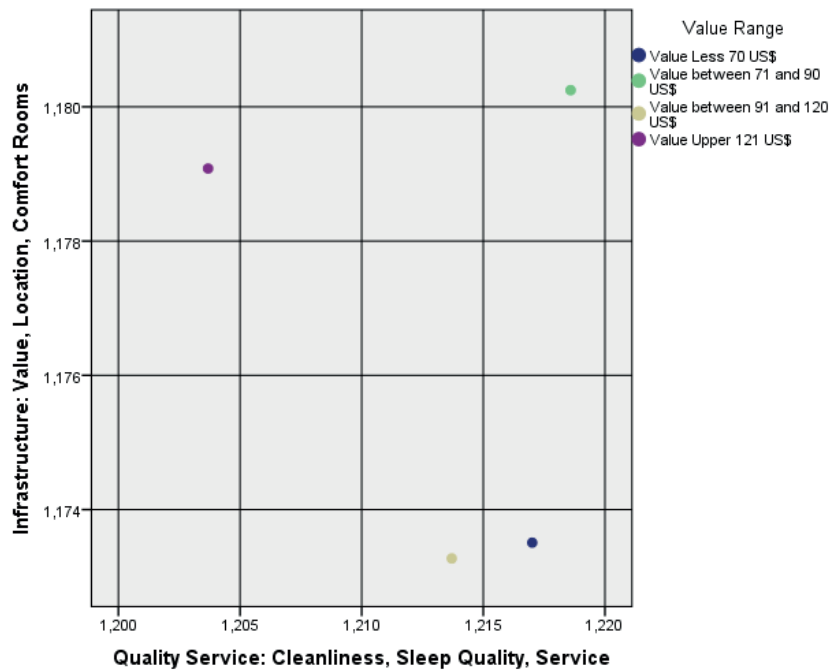
5. Conclusions and limitations

Using numerical valuations recorded in technological platforms, this paper proposed two latent constructs for evaluating a guest's perceived service quality during his stay in a hotel in Medellín, taking as a conceptual reference the proposal by Preston (1999) and Hair *et al.* (2014). These constructs were evaluated through perceptual maps using the multidimensional scaling technique, reckoning the characteristics of both demand and supply. Although there is a great variety of literature on service quality, few studies have used this technique in this specific topic of tourism, and none in the case of Colombia. In this sense, the use of this type of information is novel, as is the technique proposed for finding multivariate relationships, wherefore commercial managers, by monitoring changes in their clients' perceptions, can anticipate and manage rapid changes in competition.

For this research, 9,153 guest ratings

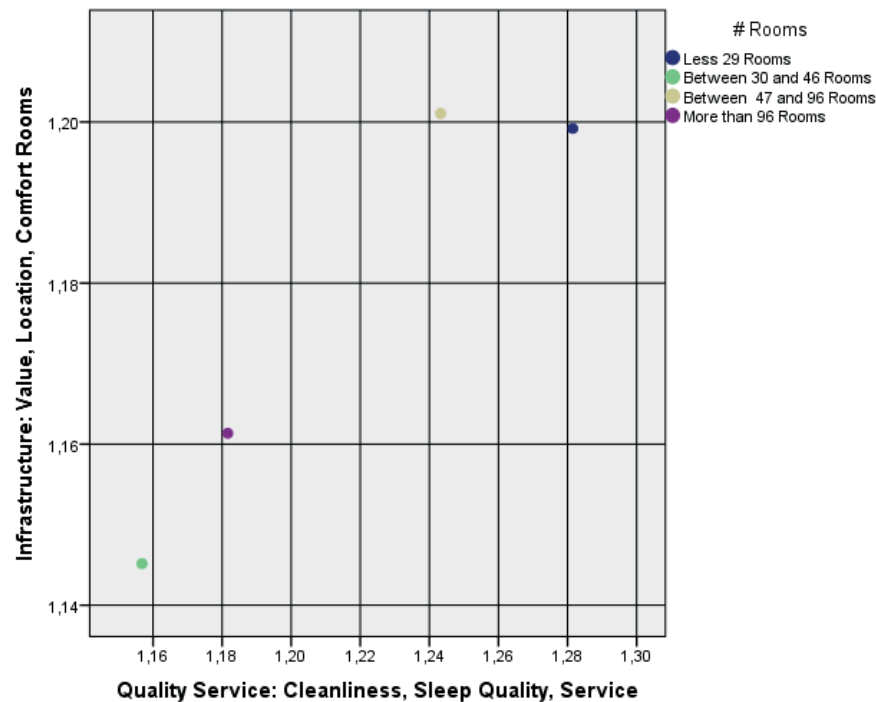
Figure 8. Type of the hotel in the rated variables

Source: Author's own elaboration based on Tripadvisor.com (2016).

Figure 9. Price range of hotels in the rated variables

Source: Author's own elaboration based on Tripadvisor.com (2016).

Figure 10. Hotel's number of rooms in the rated variables



Source: Author's own elaboration based on Tripadvisor.com (2016).

were collected, wherefrom it is possible to infer that tourism sector managers have a real-time source of information on their guests' experiences, hence becoming a valuable asset for the service's continuous improvement. Thus, the hotel industry in the country must apprehend, use and adapt the technological tools to support its marketing and advertising strategies more intensively, since due to their easy access and diffusion the valuations found through these means influence the final decision of the client upon choosing a hotel. These tools are two-way for the image and promotion of a hotel, because the users themselves are responsible for disseminating information, whether positive or negative, and for exponentially communicating a recommendation by word-of-mouth depending on their experience of accommodation.

From the valuations obtained, it is possible to infer that hotels must segment by reason-for-trip, since perceptions of the quality of service vary with it. It is noted how business travelers seek location, while family and couple travelers value cleanliness and quality of rest. As for the price variable, there is

a directly proportional relationship between price and quality of service assessment, with a higher price comes a higher quality assessment; therefore, it is important for independent hotels to use this information to establish and improve the cost-benefit ratio of their proposal. Local tourists are more appreciative of the quality of service and infrastructure than foreign tourists are; Asian tourists are more demanding in this group, while Europeans perceive a high value for service and infrastructure. In general terms, cleanliness is presented as the factor best valued by all the groups under analysis.

Information and communication technologies, particularly websites such as TripAdvisor, offer a valuable source of information that makes it possible to access and disseminate the valuations given *in situ* by end users, whereby it has become a powerful influencing tool on the final decision of a client when choosing a hotel. Although it is clear that certified hotels are rated through stars, they also have the limitation of lacking control and monitoring strategies that guarantee first-hand knowledge of the customers' perception and

develop strategies to maintain the standards transversal to their category. In the face of this prospect, the alternative of platforms that offer insight into consumer perception emerges, playing a leading role in the user's final decision when choosing a hotel. In this way, it is possible to use web search engines to access the information that guests disclose both on positive and negative experiences, thereby enabling real-time monitoring of customer satisfaction indicators in order to develop strategies that improve them and increase positive perception of the place. In parallel, it will also serve as a multiplier of the experiences lived by guests and for developing relational marketing strategies that attract new customers.

At the same time, the communications department of the hotels or its similar must know and manage the quality and quantity of websites in which organizations and individuals can access and provide reliable and first-hand information that can determine the perception of current and potential customers about their brand. Thusly, key performance indicators within hotels should collect this information as an early warning strategy on the positive and negative aspects of their clients' opinions in order to establish courses of action in order to establish a virtuous circle of continuous improvement that leverages their weaknesses and increases their strengths.

Finally, on the subject of limitations, the credibility of the ratings given on this type of platform can be noted; although the search engine claims to have the appropriate security measures in place to prevent false and fraudulent opinions, there is no human and regular review of the opinions therein contained. In the work of Ayeh *et al.* (2013) also examines the issue of credibility by finding that the assessments made bear some connection between people, i.e. they tend to form links with their similar who bear certain common characteristics with them.

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