Evidences of Ambiguity on Tourism Online Platforms

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Abstract

The widespread sharing of experiences by users offers significant impacts to hotel management, regarding both reputation and perceived value. In that sense, the identification of essential requirements, under the perspective of the customer, becomes a relevant factor within the sector, especially regarding the luxury segment. The present article aims to investigate how customer perceived quality attributes within the TripAdvisor platform can contribute to the evaluation of a luxury hotel in the city of Rio de Janeiro (RJ), Brazil. In order to meet the established goal, multiple linear regression has been used, in which the rates given by 571 guests were analyzed, between the years of 2015 and 2016, regarding their post-service experience. As an implication of the research, there could be observed a distortion of results between the descriptive analysis offered by TripAdvisor platform and the results of the econometric model, especially regarding the hotel location criterion. Therefore, it can be observed that the results found assigns greater strength to the quality attribute analysis, which offers better subside to future guests when choosing hospitality establishments..

Keywords: Service Quality. Perceived quality. Online platforms. Hospitality. Tourism.

1 Introduction

Tourist activity in Rio de Janeiro received 13.3 million travelers in 2016, according to data of the Ministry of Tourism (MTUR, 2016), significantly impacted by the Olympic and Paralympic games taking place in the city.

Regarding tourism support infrastructure, in 2016, the State of Rio de Janeiro accounted for 92,340 beds, within a total of 2,680 lodging options, in order to meet the needs all guests, according to data of the Brazilian Institute of Geography and Statistics (IBGE, 2016). Such a supply encompasses great diversity, ranging from luxury hotels to hostels. Those data do not take into account campings and the recent category of seasonal rentals which intermediates the rental of apartments, houses, rooms or beds of individual landlords, such as Airbnb, Oasis Collection and One Fine Stay. With that, the sector, after the Olympic Games, came to rely on a extensive supply of products.

The existence of several competitors requires, with greater accuracy, a quality analysis supplied by the service, especially when considering the investigation of customer perception. According to Gronroos (2003), quality is, in great extent, subjectively perceived. The author points out that good quality is perceived when experienced quality meets the expectations of the client regarding the expected quality. Also according to Gronroos (2003), if the expectations are not realistic, the total perceived quality will be low, even if the quality experienced, objectively measured, is good. In this respect, the author argues that the expected quality is the result of a function of several values, such as personal recommendations and corporate communication, which can be directly or indirectly managed by the company, as well as be externally impacted. Particularly, the object of this study is a 5-star hotel of the luxury segment, located in Copacabana, city of Rio de Janeiro.

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The choice of such a hotel has been motivated by the fact that it presented low levels of satisfaction, according to preliminary surveys performed by the company through tools used to assess product positioning. By way of illustration, in May, 2016, the hotel had an average rating, by its final customers, as a very good product, in the 48th position of TripAdvisor's ranking. In an ulterior survey, performed in March 1st, 2017, the company moved to the 67th position, within a total of 2,336 reviews. That can suggest, therefore, a lack of more accurate assessment techniques for quality attributes, in order to improve hotel managers' perceptions regarding relevant factors to guest satisfaction. That way, through complementary analysis with the adoption of statistical techniques, the subjective feature applied to the assessment patterns of the TripAdvisor tool tends to be minimized, bringing more accuracy to the decision-making process.

Preliminarily, in order to subsidize the client satisfaction analysis, the quantitative and spontaneous data were collected through the TripAdvisor tool. The adoption of such platform is due to the fact that it is one of the largest online review tools, with over 500 million reviews. Additionally, regarding the practices adopted by hotel managers, data supplied by TripAdvisor are compiled and analyzed daily by the decision-makers in the establishment targeted in the study, in order tocome closer to the customers.

The present research aims to investigate how customers considered by the TripAdvisor tool perceive quality attributes when making a general evaluation of a luxury hotel in Rio de Janeiro and confront it with the perception of the customers who experienced the service. In methodological terms, econometric methods were used, specially multiple linear regression, in which were analyzed the grades assigned by 571 guests, throughout 2015 and 2016, about their post-service experience through the investigation of quantitative reviews, available in the online review platform TripAdvisor.

That way, throughout the study, we pursued answers to the following questions:

a) Which are the relevant quality attributes to the review of the studied hotel from the TripAdvisor platform?
b) In actuality, are such attributes considered within the case in question? Should other criteria be taken into consideration?
c) What is the impact of the performance of such attributes on the guests' reviews of the studied hotel?

The article is divided into five sections, the first of which contemplates the introductory aspects of the research performed and the problem to be investigated. The second section presents literature review, encompassing the related subjects and highlighting the concepts needed to support the study. In section 3, we point out the methodology adopted to develop the empirical component of the study. In the fourth section, the data obtained with the TripAdvisor research, as well as the results of the application of the proposed method are exposed, along with the quantitative analysis of the guests' opinion. Finally, in the fifth section, we formalize the study's conclusions and make suggestions for ulterior studies.

2 Conceptual background.

2.1 Services and hospitality

Notedly, with greater intensity after the late 1980s, the subject of services came to be widely discussed. According to Teboul (2008), one of the services approach vows that any activity that does not fit into such a category is eliminated. From that point of view, services represent the tertiary sector of economy, also comprised by the primary (agriculture) and secondary (industrial) sectors.

Fitzsimmons and Fitzsimmons (2014) reinforce that services are essential and indispensable for any society's economy. Infrastructure services create the fundamental link between all sectors of economy, and therefore are relevant for the economic development of nations. As shown in Figure 1, services are present in almost all spheres of society, regarding either infrastructure, domestic activities, contracting or the public administration.

Figure 1: The role of services in the economy
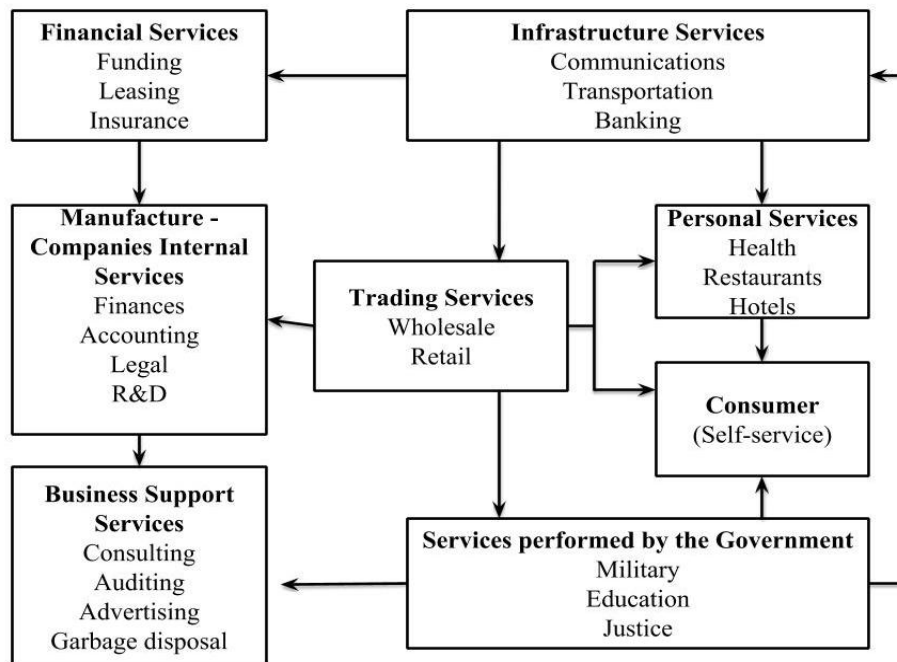
Source: Adapted from Fitzsimmons and Fitzsimmons (2014).

According to Parasuraman, Zeithaml, and Berry (1988), services are actions, processes or executions that result of an act or performance supplied by the contractor to the customer. Lovelock and Wright (2001), for their turn, define service as an act or performance provided by one part to another, an essentially intangible performance, even if the process is attached to a physical product. According to Fitzsimmons and Fitzsimmons (2014), there must be a distinction between inputs and resources. In the service industry, inputs are the clients themselves and resources are the facilitating goods. The authors argue that there are five particular features to service operations, that are [1.] simultaneity: impossibility of service stocking, since they are simultaneously created and consumed; [2.] perishability: since there is no possibility of stocking, the non-utilization of a service leads to its loss; [3.] intangibility: since they are ideas or concepts, they do not allow the client to touch the product or see how the production occurs (material good); [4.] heterogeneity: due to their intangible nature and having clients and producers as parts of the process, there may be a variation on the service from customer to customer, and; [5.] customer participation: the producers and customers are integrant parts of the service process. Intangibility and customer participation on the process have inspired Fitzsimmons and Fitzsimmons (2014) to propose the theory of the service package, in order to make it easier to identify. Such theory is defined as a set of merchandise and service supplied within a specific environment and comprising five frameworks, as shown in Figure 2:

a) support installations: physical resources;
b) facilitating goods: material that is consumed or purchased by the customer or supplier;
c) information: allows customization and efficiency;
d) explicit services: benefits immediately perceived by the customers;
e) implicit services: psychologic and vaguely felt by the customers.

Figure 2: The service package
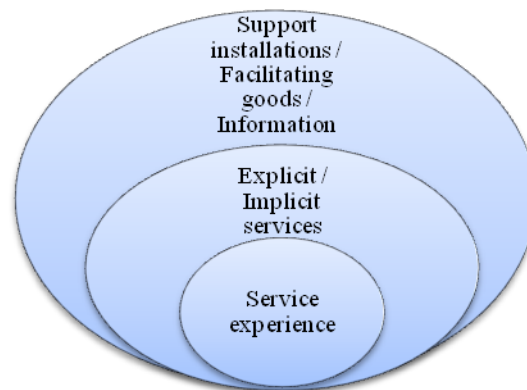
Fonte: Adapted from Fitzsimmons and Fitzsimmons (2014).

According to Gronroos (2003), customers do not purchase goods or services, but the benefits such goods and services can offer. The author argues that companies always offer a service to their customers, regardless of what they produce. Normann and Ramírez (1993) point out that the value of goods and services is created within the processes of value creation by the customer, when individual customers or corporate users make use of the solution within the package they purchased. In this scenario, one of the main requirements is intellectual capital, which is a company's most important resource. Intellectual capital can be defined as all of the assets of a company, except for those which appear in its balance sheet or in its total value, minus its book value (Gummesson, 1999). The author divides intellectual capital into:

a) individual: encompasses employees, partners and customers, with their knowledges and individual networks;
b) structural: regards company culture, which can be conveyed to employees, partners and customers.

Labor retention and knowledge migration to corporate structure remain as great obstacles to service companies. As argued by Gronroos (2003), employees are crucial for the success of a company, the same way as educated and demanding customers and corporate partners are also valuable assets, that must be retained.

Regarding the tertiary sector, this article emphasizes the hospitality industry. Only after the industrial revolution and the expansion of capitalism, lodging came to be regarded as an economic activity with trading exploration, as evidenced by Pereira and Coutinho (2007).

In Brazil, an important landmark in the hospitality sector took place in 1966, when the government created the Brazilian Tourism Enterprise (Embratur), opening a new phase in the Brazilian hotel industry, especially within the 5-star hotels segment. In the same decade, with the enactment of the tax incentive act, international hotel chains started to come to Brazil, giving rise to a new orientation in the hotel supply, with contemporary standards of service and price, according to Pereira and Coutinho (2007). From that time on, the sector began to form the structure that currently constitutes it. In that respect, Table 01 systematizes data on hotel capacity in Brazil, in general, and in Rio de Janeiro, in particular.

Table 1: Hotel Capacity: Hotel Landscape Brazil and Rio de Janeiro

	Lodging establishments	Rooms	Beds
Brazil	31,299	1,011,254	2,407,892
Rio de Janeiro	2,680	92,340	221,121

Source: IBGE Data (base year 2016).

Figure 03, for its turn, illustrates the rise in the number of foreign tourists in Brazil, with significant growth from 2010 – when the country hosted big international events such as the World Youth Day, 2014 Fifa World Cup, as well as Rio 2016 Olympic and Paralympic Games.

Figure 3 – Foreign Tourists Arrivals in Brazil
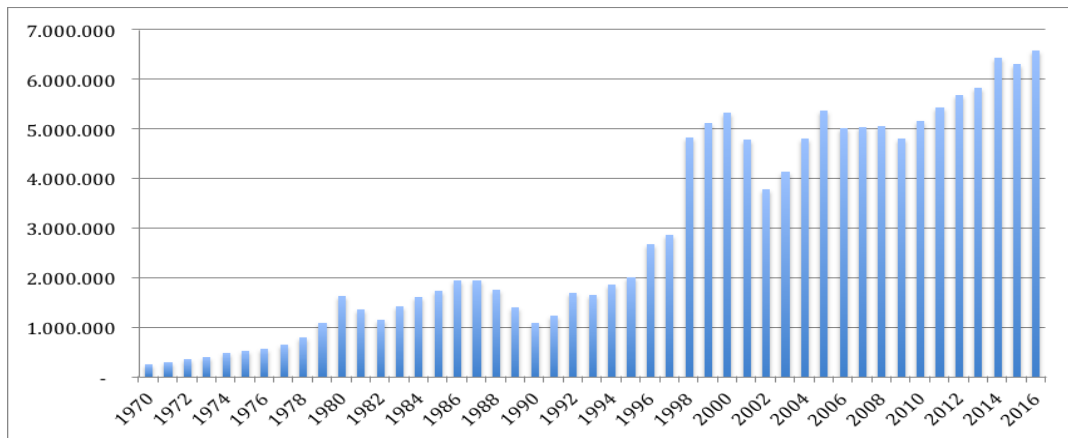
Source: Federal Police and Ministry of Tourism Data (base year 2016).

2.2 Service Quality

For Fitzsimmons and Fitzsimmons (2014), there is an academic debate regarding the quality of goods, although that knowledge still has to be refined for a better understanding of the quality necessary to the service. In this sense, at least four features must be recognized in order to allow full comprehension of the quality of such services: heterogeneity, intangibility, perishability and simultaneity.(Parasuraman et al., 1988).

Quality is frequently regarded as essential to the success of an enterprise. Gronroos (2003) argues that the competitive advantage of a company relies on the quality and value of its goods and services.

According to Branco, Ribeiro, and Tinoco (2010), quality perception in services is different from the quality inherent to the physical goods, since the first involves a greater level of abstraction in lieu of assessing the specific attributes of the products, and the consumers make judgements on the quality of the service based mainly on subjective criteria.

Abbas and Possamai (2008) argue that quality is perceived as a result of the tangible and intangible assets of the organization, hence, in order to maximize it, it is necessary to invest in the assets that will contribute directly to its development. However, particular features inherent to the services (the closer interactions with the customer, customer participation in the process, perishability, the fact that it cannot be stocked, intensive labor, variable and non-standardized outflow, intangibility and the difficulty in measuring productivity) hinder the assessment of service quality.

According to Pereira, Carvalho and Rotondaro (2013), the subject of service quality relies on factors regarding both the contractor and the customer. Authors as Parasuraman et al. (1988) and Fitzsimmons and Fitzsimmons (2014), argue that service quality is the result of the difference between the customer's expectation of the service provided and his or her perception of the provision. Meanwhile, other authors, such as Cronin and Taylor (1992) and Carman (1990), point that the service quality is based solely on customer perception. Several models were developed to measure service quality. Some of them, like SERVPERF, Lean Service, Taguchi and Poka-yoke methods, found in literature, are based on the service quality performance. Other models, like SERVQUAL, Gronroos Model, 4Q Model of offering quality and the quality function deployment model, approach customer expectations.

Among the available models, the Service Quality Gap Analysis (ServQual), by Parasuraman et al. (1988), became one of the most widespread ones. Such model analyzes customer expectations regarding a particular service, comparing them to the perception of quality of the service received. The authors argue that the service quality is the difference between the expectation and the performance/perception throughout the analysis of the quality dimensions. Also widely employed within the hospitality industry, Lean Service can contribute to the reduction of processes lead time, productivity enhancement, reduction of the space used, reduction of processing costs, sales increasement focused on client success, amongst other gains, as presented by Leite and Vieira (2015).

Woodside, Frey, and Daly (1989) investigated the relation between service quality, customer satisfaction and repurchase behavioral intention. In their empirical research in hospitals, the authors found that satisfaction is an important result of marketing efforts, which link the quality of the service to after-purchase actions, like behavioral intentions towards the service provider. Later, in the study conducted by Sirikaya and Woodside (2004), the authors point that previous positive experience with a service reduces the extension and intensity of the research for information, which makes customers more loyal.

Therefore, it can be noted that several cognitive features, including factors like emotions, desires, expectations and perceptions of each customer are present in the decision-making, evaluation and satisfaction processes of a customer. Sheth, Mittal, and Newman (2001) argue that emotions are the awareness of the occurrence of physiologic excitement, followed by a behavioral response. Kotler and Keller (2012), on their turn, define satisfaction as the feeling of pleasure the customer experiences when comparing the perceived performance of a product to his or her expectations. The dissatisfied customer is that who perceives a performance that is below his or her expectations, and the satisfied one is that to whom the performance of what has been purchased corresponded or exceeded his or her expectations. For Dominici (2010), customer satisfaction is a business philosophy which enhances the importance of creating value to customers, anticipating and managing their expectations, while suggesting the ability of satisfying their needs.

On the perspective of Sheth et al. (2001), customers do not purchase products or services, but rather try to satisfy their needs and desires. The value perceived by the customer is the assessment of the benefits brought by the services or products purchased, regarding such needs and desires. Therefore, the authors find that companies must pay special attention to improving the value of their services and products, increasing their benefits or reducing their costs. Meanwhile, the value of a service must exceed the money value (price) paid for it, since, according to Kotler and Keller (2006), customers interpret price based on knowledge acquired in previous purchases, formal and informal communication, points of sale and online resources.

Choi, Cho, Lee, Lee, and Kim(2004) point that perceived value is a cognitive construction, which requires a trade-off between benefits and compromises. The authors argue that the perceived value influences client satisfaction and their behavioral intentions.

2.3 Service technology and online review platforms

Technological advancements offer new interfaces between customers and service suppliers, due to the possibility of the latter to communicate their product/service in a way that can be understood and previously experienced by the first. Melián-González and Bulchand-Gidumal (2016) developed a model that shows the influence of IT investments in the increasement in the occupation levels and profitability of the hospitality industry, as shown in Figure 4. For the authors, IT can enhance organizational performance within a hotel from a process that involves acting over organizational performance factors: operational productivity (costs, energy and food), employee productivity (cost reduction focused on customized service), customer support (development of the quality of the service provided by employees, as well as self-service) and trading (revenue increase, customer satisfaction metrics, customer behavior understanding, distribution channels and revenue management).

Figure 4: Impacts of IT on corporate profitability
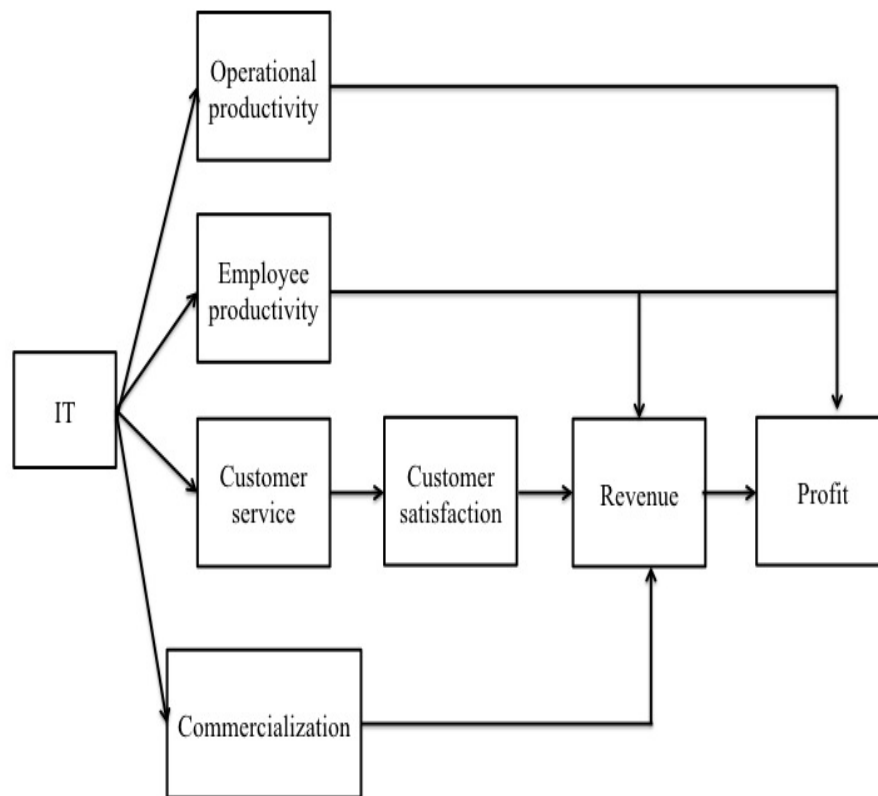
Fonte: Melián-González and Bulchand-Gidumal (2016).

Every year, millions of travelers book accommodations in hotels, which represents a high-risk decision for such customers, due to the intangibility that is inherent to such a product's supply (Lin, Jones, & Westwood, 2009). As observed by Durão, Santos, Avelino, and Silveira (2017), the evolution of media and distribution has directly impacted the development of the tourism sector. Social networks became, in great measure, mandatory and omnipresent in the relationship of companies which provide tourism services to their customers. In order to minimize the risk, travelers oftentimes consult and make their purchase decisions based on product reviews in order to get information about the quality standards of the hotel (Ekinci, 2008). Hence, many travelers take into account the opinion of other travelers through electronic word of mouth, also known as eWOM, when making their reservations.

According to Zhang and Vásquez (2014), travelling websites offer means for consumers to find out what other travelers think of tourist products, hotels and restaurants. In this scenario, such certifications are social endorsements of the products and organizations, which minimize uncertainty and establish reputation representativeness, as pointed by Rao (1994). For Bansal and Voyer (2000), travelers trust peer recommendations better than official quality classifications, since they tend to consider customer guidance as more reliable.

Woodside, Sood, and Miller (2008) showed that recovering, reviving or repeating stories allow customers to gain experience and knowledge over what other consumers say about the brand. In addition, the authors propose that such comments can possibly give rise to valuable signs for the development of effective marketing and advertising strategies. Studies by Casaló, Flavian, Guinaliu, and Ekinci (2015) as well as Baka (2016) suggest that some variables are crucial to a traveler's purchase decision. Among those, it is highlighted, for the purposes of this research:

a) credibility: perceived credibility is not an inherent feature to a source, but rather a judgement made by the users themselves (Johnson & Kaye, 2009). Therefore, credibility depends on, among other factors, beliefs about origin, message, medium and receptor (Sarabia, Rodriguez, & Hyder, 2014). According to Flanagin and Metzge (2003),

internet provides consumers with vast amount of information, from several sources, and consumers must assess the credibility of the information before using them to support their purchase decisions.

b) reputation: it's the perceptual representation of a company's past actions and future perspectives, which describe the company's global appeal for all of its main components, when compared to the appeal of its main competitors (Fombrun, 1996). According to Baka (2016), reputation seems to be an essential extension of organizational credibility, through which stakeholders can assess the past actions of a company The author argues that, the more well-known and strong is the reputation of a company, more profitable it will be;

c) "word of mouth": with social networks and exchange of experiences, virtual word of mouth started to reach a wider audience, allowing the sharing of reviews of products and services and also the participation of companies, which came to adapt to these new forms of media. Gosling, Silva, and Coelho (2016) point that word of mouth can be positive or negative. Additionally, they observe that, before the purchase, consumers are more vulnerable to positive comments, while, within a post-purchase or repeat purchases, it is the opposite scenario.

Several websites were created in order to market and also review the service of hotels from the analysis of customer perception after experiencing the service. As the most relevant websites in Brazil, we can list: Trivago, Booking.com, Kayak, Mundi.com, Decolar.com and Best Day.

This article uses TripAdvisor as groundwork for its research. The choice is due to the fact that the tool is analyzed daily and isolatedly by the body of directors of the hotel chosen as the object of the research. It can be seen that, on TripAdvisor, a service or product is reviewed through an online questionnaire. Through that questionnaire, the reviews can be conducted in three steps:

a) general evaluation of the product in five scales: excellent, very good, average, poor, terrible;
b) review of specific attributes: service, cleanliness, rooms, value, location, sleep quality, using the scale above;
c) reviews freely written by the customers.

3 Method

In order to reach the goals of the research, which proposes to identify the quality attributes recognized by the customers of a hotel of the luxury segment located in the city of Rio de Janeiro (RJ), from the analysis of perception and opinion after experiencing the services, the present study was divided into two steps: quantitative and qualitative analysis, illustrated by Figure 5.

Figure 5: Steps of the research method
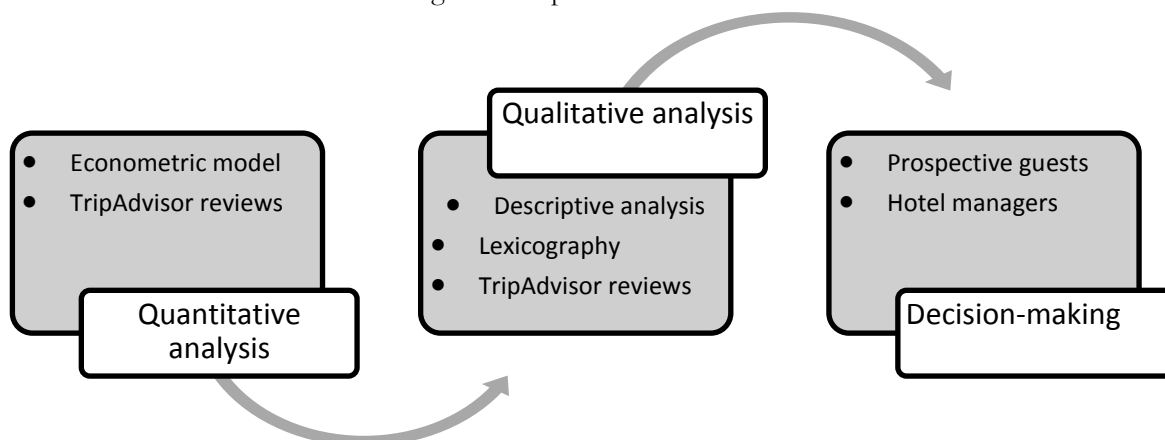
Fonte: The authors (2018)

The first step regards the collection of quantitative data available on the TripAdvisor website. As previously emphasized, the choice of that tool was due to the fact that the evaluation data available on the platform are daily analyzed by the hotel managers. Additionally, TripAdvisor has a larger base of active users and reviews among the other available review websites, offering a significant sample (571 among 2,379 reviews of the hotel studied). The investigated sample contains 571 reviews made by users between January 2015 and December 2016. It is important to note that all of the users graded the criterion "general evaluation", although the other criteria were not assessed at

every time. Therefore, in cases when no grade was given to the criterion, the latter was treated in the SPSS software as missing data and measured from the average values assigned to them.

The method used was multiple regression, according to Equation (1), being the variable "general evaluation" regarded as the dependant variable and the other variables: service, cleanliness, rooms, value, location and sleep quality are treated as independent variables, which may have an impact in the "general evaluation" variable. The scales considered were the same used by TripAdvisor. In order to verify such a ratio, Equation (1) was used:

$$OR = \alpha + \beta_1 * SE + \beta_2 * CL + \beta_3 * SQ + \beta_4 * VA + \beta_5 * LO + \beta_6 * SQ + \varepsilon \quad \text{Equation(1)}$$

Where:

$$OR = Overall\ rating$$
$$SE = Services$$
$$CL = Cleanliness$$
$$RO = Rooms$$
$$VA = Value$$
$$LO = Location$$
$$SQ = Sleep\ quality$$

In order to contemplate the second step of the research, we analyzed customer descriptive analysis in Portuguese and English, between January 1st, 2015 and December 31st, 2016, available on the website. The chosen period aimed to avoid biased results, due to the Olympic and Paralympic games taking place in July and August 2016. The restriction to those languages is due to the fact that they are the ones with the largest amount of reviews, among all of the languages available. Finally, we hope that, by confronting the results after the two steps proposed in the research, the decision-making process towards a hotel is more effective, both for managers and guests.

4 TripAdvisor data analysis

For Dominici (2010), it is mandatory to explore the importance, for customers, of unique features when selecting hotels and systematizing their satisfaction levels. The research on the subject "guest satisfaction", which translates into taking into account if customers will return to a hotel or recommend it to other tourists, is crucial for success in hospitality.

Fitzsimmons and Fitzsimmons (2014) validate such an assertive when they attest that the physical environment and support installations of the service influence the behavior of both the customers and the employees, and thus must be projected with images and feelings coherent with the concept of the service, in order to reflect the company's values, assisting it with its strategy for driving and retaining customers. The authors also state that, since the physical environment brings along an emotional response and influences the behavior of those who experience it, the project of the facilities can intentionally shape user behavior to support organizational goals. Therefore, a well-conceived environment can contribute positively, stimulating an approximation behavior of both the customers and the employees.

Addition

ally, Zhang, Zhou, Kehoe, and Kilic (2016) evidentiated in their study on customer opinions, extracted from their texts analysis and their reviews, pointing out a possible ambiguity in the platform results. Besides, Zhou and Li (2012), in a similar research, suggest that, in order to avoid biases and false results, text reviews should also be investigated, as should their relation with the general evaluations, in order to extract more features, corroborating the result found in this study.

Therefore, data originating from the platform work as support, as argued by Ye, Law, and Gu (2009), from the trading point of view, in order to obtain a better understanding of how communication or information aspects of product review websites influence customers' decision-making process. Hence, it is vital to better understand the relation between customer online reviews and hotel performance.

4.1 Quantitative analysis

According to the goal set by the research a statistical analysis of the variables studied has been conducted. The results, shown in Table 2, describe the size of the studied sample, the average related to each value and its standard deviation.

Table 2: Descriptive Statistics

Variables	N	Mean	StandardDeviation
OR	571	4,08	1,125
LO	571	4,74	0,264
RO	571	3,92	0,595
VA	571	3,62	0,594
CL	571	4,17	0,529
SQ	571	4,24	0,574
SE	571	4,33	0,820

Source: The authors (2018).

The amount of reviews studied, 571, in this case, is related to the number of reviews the hotel received on the TripAdvisor website throughout the years 2015 and 2016. The highest means were concentrated on the attributes location (4.74), followed by services (4.33) and sleep quality (4.24), respectively, with standard deviation of 0.264, 0.820 and 0.574. Such results point the attribute location as a rather positive, homogenous and consistent perception, showing near-unanimity according to customers.

For the general evaluation, the measured mean was 4.08, which means the hotel was rated very good; however standard deviation was of 1.125, which suggests variability among the answers. In the location criterion, the hotel received an mean score of 4.74, considered as excellent, and a standard deviation of 0.264, meaning low discrepancy in the opinion of different reviews. The worst variable analyzed was value, which reached an mean score of 3.62 and standard deviation of 0.594, possibly due to the fact that the guests do not agree with the prices of the establishment under study. The linear relations between the variables, that is, how much a certain attribute can impact another attribute in a linear way, were measured through the calculation of Pearson correlations in Equation 2, expressed on Table 3.

$$\rho = \frac{cov\ (X,Y)}{\sqrt{var\ (X) * var\ (Y)}}$$ Equation(2)

Table 3: Correlations (cov (x,y)/DP(x)*DP(y))

	OR	LO	RO	VA	CL	SQ	SE
OR	1,000						
LO	0,171	1,00					
RO	0,397	0,253	1,00				
VA	0,412	0,127	0,331	1,00			
CL	0,415	0,224	0,352	0,270	1,00		
SQ	0,392	0,108	0,344	0,266	0,347	1,00	
SE	0,553	0,227	0,292	0,428	0,423	0,426	1,00

Source: The authors (2018).

Through the results of the Pearson correlation, it was aimed to individually compare the linear relation between the variables. In this sense, it can be observed that the variables services and cleanliness are shown as the ones with greater influence on the hotel's general acceptance. Along with those attributes, location and value also express relevant results. Location, while very well evaluated, shows inexpressive correlation with the hotel's general evaluation, pointing greater affinity when related to the variable rooms. Such fact suggests the possibility that the location, overlooking Copacabana beach, adds value due to the breathtaking view of the seashore, albeit not decisive for the choice of the hotel. Considering the values found, we can infer that the variables have a positive and weak correlation. Therefore, cases of multicollinearity are unlikely in this study. Even so, the Variance Inflation Factor (VIF) was calculated and the results confirmed the absence of multicollinearity between the variables, that is, the regression coefficients are estimated in an accurate manner. For investigation purposes within this work, the variable "General Evaluation" was studied as being explained by other variables: Location, Rooms, Value, Cleanliness, Sleep Quality, Services. The results are shown in Table 4.

Table 4: Regression results

Variables	Overallrating
Location	-0,039
	(-0,270)
Rooms	0,316**
	(4,497)
Value	0,279**
	(3,988)
Cleanliness	0,294**
	(3,676)
Sleep quality	0,201**
	(2,739)
Service	0,469**
	(8,495)
Constant	-2,088**
	(-2,981)
R^2 adjusted	0,406

** Statistically significant at a 95% level
Fonte: The authors (2018)

According to the results found, we can assert that the model has relevance (R^2= 40.6%), which suggests that the inclusion of other variables not researched here could grant the model a more explanatory trait.   From   the multiple regression results, when assessing the impacts of the attributes location, rooms, value, cleanliness, sleep quality and services within the customers general evaluation, new interpretative hues arised. Under the perspective of the relative importance of the impact of the variables studied, for the general acceptance of the hotel, we can see that services was the more decisive one, followed by rooms, cleanliness and value. However, the variable location did not seem to have that great of an impact in guests general evaluation.

All of the variables considered present significant results for the general evaluation construct. The exception is for the variable location, which, albeit obtaining the highest mean value in comparison to the other variables, did not have significant impact on the general evaluation. The result associated to the variable value leads to the thought that the respondents do not seem to be convinced of the value the hotel assigns to the product. It is important to note that the attributes considered within this study (rooms, cleanliness, value, sleep quality and services) are part of different sectors within the hotel, with different areas of work, each one with their particular features and activities.

4.2 Qualitative analysis

From the general evaluation of the product, the starting point of the research, the specific attributes, pre-established by the tool, can then be assessed. Figure 6 shows an overview of such assessments. Comment analysis was used in order to support this step of the research, as well as to find out new possible attributes posteriorly presented on Figure 12. This analysis considered all the comments made by guests who experienced the products.

Figure 6: Specific evaluation
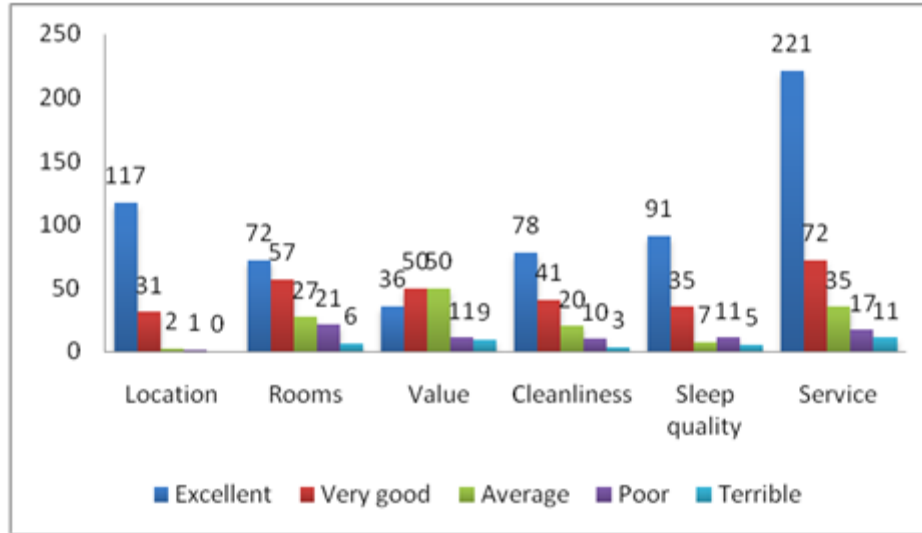
Fonte: *TripAdvisor* data.

The attribute location stands out in the reviews of the studied hotel. The research evidences that the entirety of spontaneous respondents (100%) points that the easy access to other venues, as well as the location of the hotel, offering a privileged view, represent the main factor for the return of the guests. Among all of the accounts, it is possible to extract coherence in all of the reviews, as well as the possibility of experiencing the product, as corroborated by the following spontaneous statement: "Very well-located hotel, with one of the best views of Rio. Having a glass of wine in the restaurant saccade is an amazing experience". Analyzing Figure 7 for the attribute rooms, we can observe a greater dispersion between the reviews, on the respondents' side. It can be noted, from the image, that 15% of all reviews are concentrated between poor and terrible, and other 15% in average.

Figure 7: Rooms review
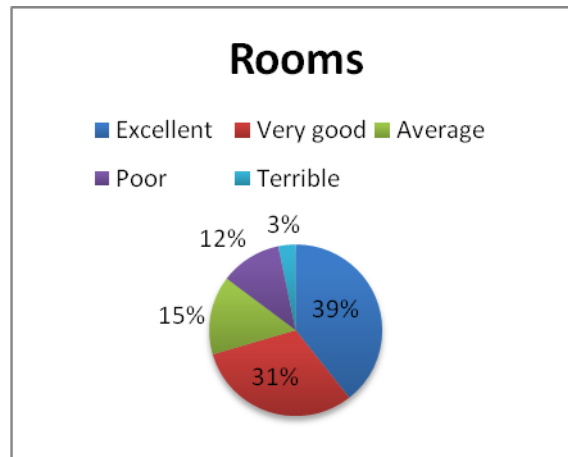
Source: *Trip Advisor* data

The spontaneous comments suggest structural problems: "The rooms and bathrooms were renovated, but still have a strong mould smell"; "The shower temperature changed dramatically"; "[...] the air conditioning is old and noisy [...]"; "Problems with the shower, air conditioning, poorly conserved facilities"; "[...] gorgeous building, but below expectations, in urgent need of work in the rooms"; "[...] shabby product and constantly clogged toilets [...]"; "[...] the room door does not close automatically [...]"; "[...] the saccade double door was very old and hard to open and close [...]; "Room about to fall apart, with broken doors and outlets". Through comment analysis, it becomes clear that the rooms of the studied hotel are poorly conserved.

On the other hand, the 70% who give positive reviews point, in their statements, the view from the rooms, the service provided or the amenities (shampoo, conditioner and moisturizer), and items (food items such as fruit or chocolate) available on the occasion. In 18 of the 550 reviews, luxury brands Lanvin, L'Occitane and Hermés on the amenities worked towards a positive room experience. Gift items, like fruit, champagne or pâtisserie items available in the room accounted for ten among 550 positive comments, and 47 and 32 reviews, regarding the view and the existence of saccades, respectively, had a positive impact on the guests.

The quality of sleep attribute regards the bed, pillows and room acoustics. In conformity with the room evaluation, almost 80% of the reviews were positive, as shown in Figure 8. Most of those are related to bed quality and the existence of a pillow menu, as observed on the collected comments: "[...] the bed is amazing [...]"; "having a pillow menu was fabulous".

Figure 8: Sleep quality review

Fonte: *TripAdvisor* data.

The reviews on the terrible and poor scales account for 10% of the result and are due to the noise coming from infrastucture work before the Rio 2016 Olympic Games, around the hotel. The reviews on the average scale account for 11%.

The cleanliness attribute, represented on Figure 9, accounts for 78% of the reviews concentrated on the excellent and very good scales. The other 22% are concentrated on the average, poor and terrible levels, due to the mould smell, mentioned in 30 reviews, as well as other situations, such as described: "We were disappointed on the fact that we had to kill two cockroaches inside the room"; "[...] the shower needed more thorough cleaning, since there was slime on the wall and floor [...]".

Figure 9: Cleanliness review
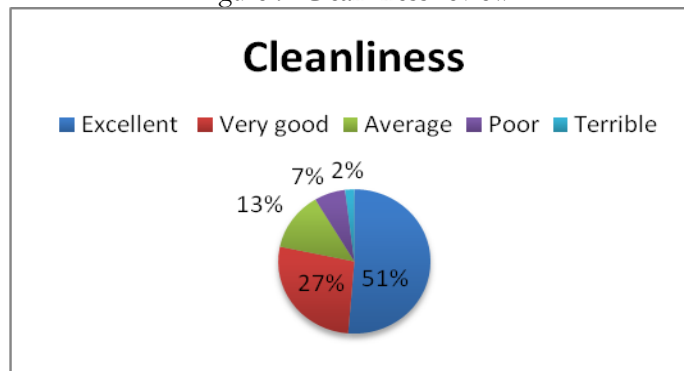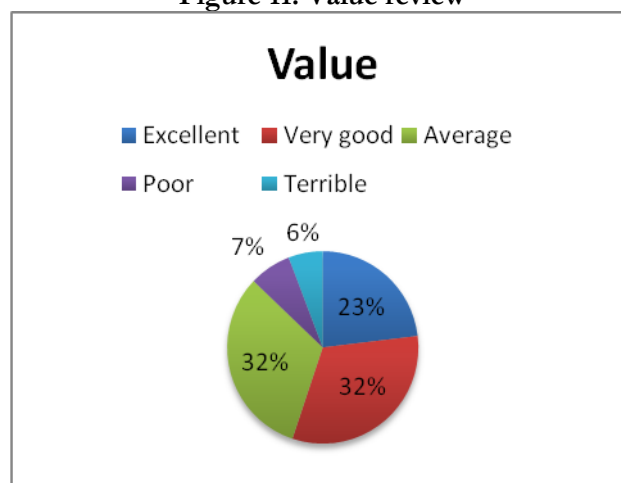

Source: *TripAdvisor* data.

The services attribute, illustrated on Figure 10, regards humanized service provided to the guests by the employees. On this, 82% of the respondents complimented the teams, versus 18% of the reviews in the scales average, poor and terrible.

Figure 10: Services review
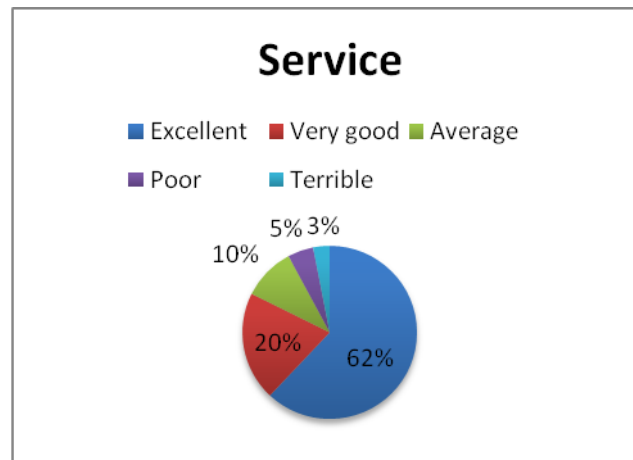
Source: *TripAdvisor* data.

The comments emphasize the quality of the service provided by the employees, as in: "[...] beyond team excellence, I'm in love"; "[...] nice employees, who did everything they could to make sure we had a perfect stay"; "The front desks were very polite and helpful [...]. The concierge service is the best I've ever seen". As for the 18% of the reviews condensed on the average, poor and terrible scales, it is possible to notice that most of them are due to process flaws, leading to customer dissatisfaction. Some of the comments that highlight such a feature are: "Clumsy service at breakfast. The waiters did not seem to know what to do"; "[...] in the front desk, they charged wrongly and took a while to fix it. They need to work better on the details"; "The breakfast venue is gorgeous. However, the terrible waiting service, which was done on a rush, spoiled that which was supposed to be an excellent experience".

Concluding the reviews of pre-defined attributes, value, represented on Figure 11, points the value perception of the studied hotel. Within this attribute, 55% of the respondents rated the price they paid for their stay as fair, through the scales excellent and very good. Meanwhile, 45% of the reviews were concentrated on the scales average, poor and terrible. By analyzing the reviews, 48 of the 550 comments point directly that the value is high and does not correspond to the promised delivery.

Figure 11: Value review

Source: *TripAdvisor* data.

Such assertives can be corroborated in the comments: "[...] high value for a disastrous stay"; "[...] for that price, I expected more from the hotel"; "High cost"; "A hotel that puts itself as 5-star, has sky-high rates and should be a landmark in Rio de Janeiro, has tight rooms, terrible maintenance, and is in urgent need for refurbishing"; "The rooms are not compatible with the counter rate".

In order to complement the analysis provided by TripAdvisor, lexicographic analysis of the comments above introduces specific attributes of the studied hotel, besides those previously defined by the website, that is: loyalty program, infrastructure and dining, illustrated on Figure 12. Such illustration shows that the company's loyalty program is not positively recognized by some guests. Of the 571 reviews, nine of them directly complimented the program and 19 stated not to receive the benefits promises by the program.

Another attribute that appeared to be relevant was infrastructure. From all of the 571 spontaneous comments, 127 complimented the wide spaces, saccades in the rooms, the large gym center and the two pools within the property. Nonetheless, 107 comments revealed that the customers reviewed the areas as poorly maintained or with an old-fashioned décor and dark areas, which does not match the area where the hotel is located.

Figure 12: Specific attributes
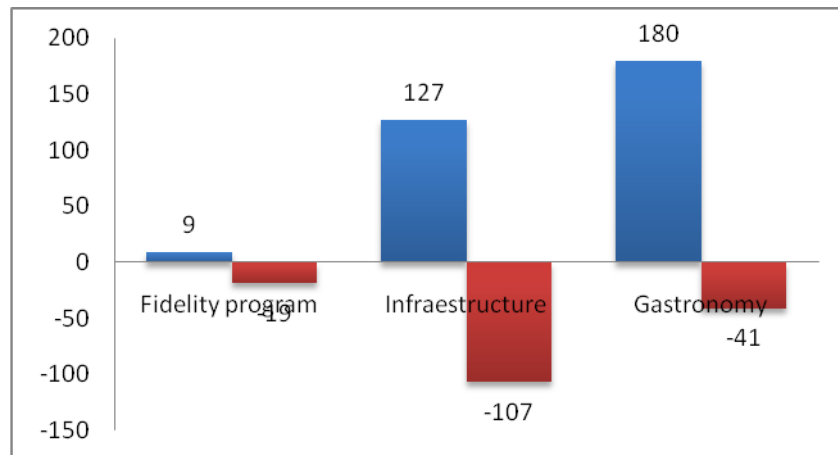
Sourcee: *TripAdvisor* data.

Finally, an attribute of great importance to the hotel is gastronomy. The analysis shows that 180 positive comments were made for this attribute. From all of them, it is noticeable that breakfast accounts for 143 of the positive comments, followed by brunch and coffee break. Most of those positive comments emphasizes the diversity of options and abundance of food available. However, the reviews show 41 negative comments, regarding the dinner, *feijoada* and lunch services.

5 Conclusion remarks

The present study aimed to investigate the contribution of the attributes of customer perceived quality considered by the TripAdvisor platform in the general evaluation of a luxury hotel in the city of Rio de Janeiro and confronting them with the perception of customers who experienced the service. For that purpose, were used econometric models and qualitative analysis of the guests opinions. Theoretical basis was supported by literature review, in order to evidence subjects related to the signaled intentions. The empirical research, on its turn, investigates customer perception through quantitative analysis of the reviews available online on the TripAdvisor platform.Through the research, it was identified that, if, on one side, location was the main attribute emphasized by the establishment and marketed on their media, in order to attract new customers, on the other, it can be observed that, under the customer perspective, the humanized service was recognized as the most valuable attribute in their evaluations. In addition to that, eventual operational and structural issues directly affect customer experience, directly impacting the value perception of the service. Such facts point out ambiguous and inconclusive data, originating from the investigated platform, influencing directly management analysis and, hence, its decision-making process.

Comparing the theoretical findings and in addition to the research results, this study proposes the improvement of service experience through the increment of service quality in the investigated hotel, through actions as:
   a) improvement of physical structure through an architecture project;
   b) décor renovation, employing a concept that matches the area where the hotel is located and coherent with brand planning;

    c) field research to be performed directly by the hotel in order to collect more detailed data simultaneously with those offered by review tools;

    f) upgrade on the hotel's institutional communication, in order to emphasize the attributes identified by the customer; In particular, this study offers a contribution regarding the subject of service quality, laying its main concepts in order to collaborate with the hospitality industry. It collaborates especially by approaching a subject with growing interest in literature.

It is relevant to consider that were not made comparisons with other properties of the same chain, neither direct competitors. We reckon, nonetheless, that potential inspirations arising from this study may also be appropriated by other hotels which are facing similar challenges. In order to produce new studies from this research, it is recommended a more thorough analysis of other research tools employed by hotels, as well as monitoring of the data supplied, in order to generate future projects for the company. Finally, a similar study, that opposes its analysis to the analysis of other hotels, may equally produce fruitful studies, alongside with field research approaching perceptions from middle management and frontline.

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