



Centro de Estudos de  
Economia Aplicada do Atlântico

## **WORKING PAPER SERIES**

**CEEApIA WP No. 17/2011**

### **Tourists' Satisfaction and Loyalty in the Hotel business: an application to the island of São Miguel, Azores**

**Maria Graça Batista  
João Pedro Couto  
Diana Botelho**

**Tourists' Satisfaction and Loyalty in the Hotel  
business: an application to the island of São Miguel,  
Azores**

**Maria Graça Batista**

Universidade dos Açores (DEG e CEEAplA)

**João Pedro Couto**

Universidade dos Açores (DEG e CEEAplA)

**Diana Botelho**

Universidade dos Açores (DEG)

Working Paper n.º 17/2011  
Junho de 2011

## RESUMO/ABSTRACT

### **Tourists' Satisfaction and Loyalty in the Hotel business: an application to the island of São Miguel, Azores**

Given the recent competition in the hotel business and the constant search for satisfaction and loyalty of the guests, the objective of this study is to understand tourists' perceptions of service quality offered at the hotels in São Miguel, and the factors contributing to their satisfaction and loyalty.

Based on a reference model taken from literature on satisfaction and loyalty, an exploratory research of national and international tourists who stayed at the hotels of São Miguel was made. The data was used to simulate a model of structural equations to test the hypotheses of investigation.

The results showed that the main influential variables of satisfaction were the quality of service offered and management of complaints. The factors that contributed most to the loyalty of the guests were the affective commitments, satisfaction, price, customer services and finally the image of the hotel itself. The information management became a fundamental factor in the satisfaction and loyalty of tourists.

**Keywords:** Satisfaction, loyalty, quality, tourism, hospitality.

Maria Graça Batista  
Universidade dos Açores  
Departamento de Economia e Gestão  
Rua da Mãe de Deus, 58  
9501-801 Ponta Delgada

João Pedro Couto  
Universidade dos Açores  
Departamento de Economia e Gestão  
Rua da Mãe de Deus, 58  
9501-801 Ponta Delgada

Diana Botelho  
Universidade dos Açores  
Departamento de Economia e Gestão  
Rua da Mãe de Deus, 58  
9501-801 Ponta Delgada

**TOURISTS' SATISFACTION AND LOYALTY IN THE HOTEL BUSINESS: AN  
APPLICATION TO THE ISLAND OF SÃO MIGUEL, AZORES**

MARIA DA GRAÇA BATISTA  
Departamento de Economia e Gestão  
Universidade dos Açores  
CEEApI  
Apartado 1422  
9501-801 Ponta Delgada, Azores; Portugal  
Tel.: 296 650 084  
Fax: 296 650 083  
[mbatista@uac.pt](mailto:mbatista@uac.pt)

JOÃO PEDRO COUTO  
Departamento de Economia e Gestão  
Universidade dos Açores  
CEEApI  
Apartado 1422  
9501-801 Ponta Delgada, Azores; Portugal  
Tel.: 296 650 084  
Fax: 296 650 083  
[jpedro@uac.pt](mailto:jpedro@uac.pt)

DIANA BOTELHO  
Departamento de Economia e Gestão  
Universidade dos Açores  
Apartado 1422  
9501-801 Ponta Delgada, Azores; Portugal  
Tel.: 296 650 084  
Fax: 296 650 083  
[botelhodiana@hotmail.com](mailto:botelhodiana@hotmail.com)

# **TOURISTS' SATISFACTION AND LOYALTY IN THE HOTEL BUSINESS: AN APPLICATION TO THE ISLAND OF SÃO MIGUEL, AZORES**

## **ABSTRACT**

Given the recent competition in the hotel business and the constant search for satisfaction and loyalty of the guests, the objective of this study is to understand tourists' perceptions of service quality offered at the hotels in São Miguel, and the factors contributing to their satisfaction and loyalty.

Based on a reference model taken from literature on satisfaction and loyalty, an exploratory research of national and international tourists who stayed at the hotels of São Miguel was made. The data was used to simulate a model of structural equations to test the hypotheses of investigation.

The results showed that the main influential variables of satisfaction were the quality of service offered and management of complaints. The factors that contributed most to the loyalty of the guests were the affective commitments, satisfaction, price, customer services and finally the image of the hotel itself. The information management became a fundamental factor in the satisfaction and loyalty of tourists.

**Keywords:** Satisfaction, loyalty, quality, tourism, hospitality

## **CUSTOMER SATISFACTION AND LOYALTY**

Many companies confirm that only offering a product or service and making it available to the market is insufficient to draw new customers and retain the loyalty of the current ones. The consumers are assertive about asking about the purpose of the product or service they are acquiring, by trying to learn the philosophy of the company, the benefits it brings to society, and especially how it treats the customers.

Through quality and the constant search for growth and development, the hotel business will withstand the fierce competition of the modern market. The search for quality in hotel services is the search for a differential treatment of the market.

The problem in customer satisfaction is presented as an area of difficult treatment for the managers, especially in the hotel sector, in which the performance of each hotel is essential in its success. In this context, guest satisfaction must be one of the prime objectives (Pinto, 2008). Faced with this scenario, there is a need to conduct a questionnaire on the satisfaction and loyalty of the guests in the São Miguel hotel sector.

### **Relation between satisfaction and quality of service**

Kotler (2003) defines satisfaction as a feeling of pleasure or disappointment based on a comparison between the perceived performance of the product and the expectations of the customer. Satisfaction is measured through the relation between what the customer received and what he or she expected to receive. If the perception is greater than expectation, the customer becomes more satisfied than expected, but if it is less he will become disappointed and will not react positively to the experience.

Providing quality service is an essential strategy for the success and survival of any company, and represents a challenge to the managers. The characteristics of services – perishability, heterogeneity, inseparability and intangibility – present certain difficulties with definition, standardization and control. However, the quality of service, marketing relationship and global satisfaction with the service may improve the chances of the customers returning to the company. Therefore, all companies must improve their quality standards and keep customers happy if they are to maintain a competitive position in the market.

The quality of the service rendered by the hotel is a fundamental aspect of its competitiveness, since the expectations of the customers increase continually. However,

like other organizations, the hotel business must take this juncture as an opportunity and not as a threat.

The literature about marketing is concentrated in researching the differences and causal order between satisfaction and quality (Gallarza, Saura and Garcia, 2002). According to Cronin and Taylor (1992), there are three clearly differentiated stances in the research: (1) the relation between quality and satisfaction: neither can forego the other; (2) the dominant position, establishes an inverse causal order with satisfaction being the consequence of quality, and (3) satisfaction precedes quality.

### **Satisfaction in the construction of customer loyalty**

Many researchers tried to unveil the connections between service quality, satisfaction and loyalty (Oliver, 1997; Zeithaml, Berry and Parasuraman, 1996). Ostrowski, O'Brien and Gordon (1993) identified a positive and significant relationship between service quality and consumer loyalty in the aviation industry. Boulding, Staelin and Zeithaml (1993) discovered a correlation between service quality and behavioral intention. These authors also stated that service quality affects behavioral results such as loyalty.

Oliver (1997) suggested a conceptual model that sought to show the direct effects of the quality of service, satisfaction and loyalty on earnings, following the same sequence: quality of service/satisfaction/loyalty. Cronin and Taylor (1992) used a model of structural equations to demonstrate how satisfaction directly influences customer loyalty. They also revealed an important connection between satisfaction and loyalty in a hospital system (Woodside and Lysonski, 1989).

Further studies of clients of commercial banks indicated that satisfaction influences consumer loyalty (Hallowell, 1996). Besides that, Bloemer and Ruyter (1998) concluded that quality of service is directly or indirectly related to loyalty via satisfaction and the latter has a direct effect in the loyalty in the banking system. When applied to the tourism sector, the modified conceptual model revealed a positive effect of satisfaction in loyalty (Pritchard and Howard, 1997). Consequently, previous studies seem to support the claim that satisfaction is the greatest antecedent of loyalty.

### **Behavior in the loyalty process**

Loyalty is directly related to company earnings. It is explained by both satisfaction and customer complaints. In the first relationship, satisfied customers become loyal. In the second relationship, there is dependence on a troubleshooting system.

Henry (2000) mentions a strong connection between the repurchase process and consumer loyalty. This behavior is common in categorizing consumers, but it is not the most important or the final factor in understanding the mentality of a loyal customer.

To Baloglu (2002), companies tend to implement programs encouraging consumer loyalty, but repurchases do not imply loyalty. This author correlated the attitude and purchasing patterns, identifying four types of customer loyalty: (1) true loyalty; (2) hidden loyalty; (3) false loyalty and (4) null loyalty.

A client with a strong commitment to the company and a high repurchase rate is truly loyal. Customers with a low repurchase rate and a strong preference for the company, are in terms of hidden loyalty. The low repurchase rate might be a consequence of customers lacking sufficient financial means to make the purchase or because the marketing strategies of the company do not encourage repurchasing.

Customers with false loyalty, despite their weak commitment to the company, participate substantially in the repurchase process. This periodic repurchase may occur when there are few or no alternatives or when the purchase is based on past habits (Pereira, 2006). Finally, the client without loyalty does not have any commitment to the company and has an insignificant participation in the repurchase. These customers easily change companies.

Bloemer and Ruyter (1998) described companies' interest in analyzing and measuring the satisfaction of their customers. However, the reality of organizational increasing cutting costs in the last decade is reflected in the decline of commitment in the satisfaction of the customer. The focus on satisfaction helps eliminate the negative potential of consumer dissatisfaction.

### **Measurement scales of satisfaction and loyalty**

The literature review served as a guide for exploring the quality of services, as well as instruments for measuring satisfaction and consumer loyalty. One instrument is the SERVQUAL developed by Parasuraman, Zeithaml and Berry (1988) and the Importance Performance Analysis (IPA), introduced by Martilla and James (1977) that gained major recognition in different service settings.

Medeiros (2005) adapted the SERVQUAL scale to the hotel business with the objective of identifying the perceptions of quality evaluated by the senior segment in Portugal, concluding that according to the socio-demographic variable, hotel managers should differentiate the services to offer, according to the guest's gender, profession, academic



education, income, experience as a customer, intentions of returning and country of origin. The factorial analysis made it possible to confirm that of the final attributes on the scale, 40% are related to the tangible aspects of the hotel establishments, while 32% of the variables are related to the responsiveness and empathy of employees. 20% of the scale concerned the security of the hotels and only 8% applied to the catering units.

Shanahan and Hyman (2007) identified and compared the features that American tourists appreciated most in the hotels in Ireland and China, through the SERVQUAL scale. Although American tourists expect clean rooms at good prices, they are willing to forgo these aspects in exchange for security when travelling abroad. It was also reasoned that American tourists were even more satisfied with international hotels than with domestic ones offering equivalent services.

### **SERVQUAL limitations**

Although several studies are conducted with the SERVQUAL model as a measuring system of service quality, Buttle (1996), Carman (1990), Cronin and Taylor (1992) have questions its effectiveness. Their criticism is based on its applicability to all service industries. Another point of criticism is that the SERVQUAL scale uses an alternative of benchmarking of each item, aiming to capture both expectations and perceptions in a single question. However, all the authors never question the validity and reliability of the items involved in the scale.

Owing to the problems that appeared in the use of the SERVQUAL scale, the IPA model has been gaining popularity in many measuring ranges of the quality of service. According to Gengqing (2005), the IPA has been used to project marketing strategies of the companies, evaluate the management of events, and guide the planning and decisions of governments.

One of the main objectives from the study by Gengqing (2005) was to develop and test a theoretical model that represents the elements contributing to the loyalty of the tourist in the city of Eureka Springs in the American State of Arkansas: the destination image, the attributes of satisfaction, and general satisfaction with the destination. After defining the hypotheses to test the relationship between these elements, calculations were based on the consumer response, the measurements of importance and satisfaction with each of the seven attributes: accommodations, meals, purchases, city attractions, activities and events, environments and accessibility. These values were then used as coordinates to trace each component in the IPA matrix.

The first quadrant of the IPA matrix assumes that the organization is doing a good job, since the performance is related to the expectations of the customers. The second quadrant demonstrating less importance in its attributes is the optimal performance of the organization, which may be a sign of excessive investment and high performance by the organization, while the third quadrant suggests a moderate performance with attributes of lesser importance. The fourth and final quadrant deserves special attention as it concerns very important attributes, but with precarious performance by the organizations, there is a need to invest in them and improve these characteristics.

By using this instrument, Gengqing (2005) concluded that the city of Eureka Springs must continue with the same strategy in relation to environment and accommodations, since according to the tourist evaluation, those attributes are located in the first quadrant of the IPA matrix. Meals are an attribute of special attention from the city organizations, although the tourists give it less importance. The city attractions, as well as activities and events are factors that contribute less to the satisfaction of the tourists and, finally, purchases and accessibility are the attributes tourists consider the most important, but are least satisfied with. According to this researcher, the IPA provides information on how an organization meets the concerns of its customers in relation to products and services offered while providing directives for future decisions.

### **Models of national consumer satisfaction indexes**

The models of national consumer satisfaction indexes are developed through the analysis and quantification of customers in relation to the factors influencing their satisfaction and loyalty. Over time, the models evolved substantially (Johnson *et al.*, 2001), and they all have customer loyalty as the final dependant variable, responsible for their retention and subsequently earnings for the organization.

According to Johnson *et al.* (2001), the models of satisfaction indexes define, in a general manner, the customer satisfaction as a whole or the cumulative evolution of the purchasing experience, making it possible to use them in service companies, public agencies and industries. The first index of customer satisfaction integrating the quality of goods and services available, calculated at the level of business, of the sector and of the whole country displayed in 1989, in Sweden, becoming known as the Swedish Customer Satisfaction Barometer (SCSB) (Fornell, 1992). Later on, Fornell *et al.* (1996) developed the American model - American Customer Satisfaction Index (ACSI).

The European Customer Satisfaction Index (ECSI) developed in 2000, is a variation of the ACSI model. In this model, loyalty measurement includes the probability of retention, business or brand recommendations and the probability of increasing the amount of purchases by the consumers (Johnson *et al.*, 2001).

According to Freire (2005), those models have evolved and have been adapted over time. It is implied in all models that global satisfaction cannot be measured as an isolated variable but instead by a number of elements preceding satisfaction, such as: perceived quality, perceived value, customer expectations and quality factors. Consequences of customer satisfaction include the image of the company, management of complaints, calculated and affective commitments and the loyalty of their customers. Development and permanent application of national indexes of customer satisfaction make it possible for an organization to evaluate its current and future performance (Grigoroudis and Siskos, 2004). The American government uses these indexes to verify the competitiveness of its country in the varying economic sectors and establish goals to increase this competitiveness.

A few studies applied Johnson *et al.* (2001) model to different areas of services, such as communications, education and hotel management. Pereira (2006) studied the sector of mobile communications services and concluded that technology, rates, network coverage, readiness for troubleshooting and security of the stores are preponderant factors on the impact of satisfaction. The results obtained also showed that the customer loyalty in the mobile network is not solely explained by the satisfaction thereof, as there are other factors, such as the image of the mobile company, the affective commitment and the calculated commitment of the plan. The conclusions are consistent with the results obtained by Fornell (1992) who developed the Sweden consumer satisfaction index.

Fornell *et al.* (1996) used the American satisfaction index to verify if the quality in the United States of America would dwindle as a consequence of a decrease in the overall consumer satisfaction with the services offered by the many activities sectors. They concluded that personalized service is more important than reliability in determining customer satisfaction; customer expectations play an important role in the sectors where variations in production and consumption are relatively low and finally, customer satisfaction is more related to quality than to price alone.

## CONCEPTUAL MODEL AND HYPOTHESES TO TEST

The sequence of this literary review adopts as a reference the model developed by Johnson *et al.* (2001), also known as the Norwegian Customer Satisfaction Barometer (NCSB).

### **Quality factors**

To Fornell *et al.* (1996), the perceived quality was taken from a market analysis of consumer experience. The quality measurements of the new Norwegian index were based on a multi-item scale for measuring the quality of the SERVQUAL scale, developed by Parasuraman, Zeithaml, and Berry (1988). The scale includes five measurements:

- (1) Tangibility: physical elements such as the appearance of employees, uniforms, aspect of the facilities, equipments and physical disposition;
- (2) Trust/reliability: how the organization and its employees provide services;
- (3) Responsiveness: ability of the employees to provide a service fitting the needs and demands of the customer;
- (4) Security: assessment of the knowledge and courtesy of the employees, as well as their ability to inspire trust;
- (5) Empathy/accessibility: disposition of the employees to provide a personalized service and tend to the needs of the clients.

According to Fornell *et al.* (1996), customer satisfaction can be used to evaluate and intensify the performance of the companies, industries, economic sectors and even national economies, through the quality of their goods and services. Therefore, the hypothesis of relationship between the customer satisfaction and quality factors is:

Hypothesis 1: *Quality has a positive effect on the satisfaction of tourists.*

### **Price**

From an economic perspective, price is viewed as a measurement of the effort made by the customer to obtain a product or service. In the new Norwegian model, Johnson *et al.* (2001) considered the price of the product or service in relation to the benchmark varieties: comparison between the product price and the expected price, the prices of competitors and quality; thus, leading to attempts to eliminate the duplicity in the other models, which consider the perceived value and quality. Since quality is part of the

value, only the price is considered as influential in customer satisfaction and loyalty. As a consequence, the following were tested:

Hypothesis 2: *The price factor positively affects the satisfaction of tourists at hotels;*  
*and*

Hypothesis 3: *The price factor positively affects the loyalty of tourists to the hotels.*

### **Complaint management**

According to Johnson *et al.* (2001), the consequences of satisfaction were developed during a time when a formal complaint management system did not exist or was relatively rudimentary. There was little focus on the treatment of complaints as a mechanism to retain customers and increase earnings. Theoretically, complaints were a consequence of a low level of satisfaction, rather than an opportunity to increase the level of satisfaction. Complaints from customers are important, as they are part of the customer's recovery process for subsequent search of loyalty. Therefore, the companies receiving information may improve their products significantly, correcting or perfecting their operational activities and solving other business related matters. Companies with advanced complaint management systems not only control them, but also spread the information throughout the organization and create solutions to preserve and increase customer satisfaction. Therefore, the following hypotheses were considered:

Hypothesis 4: *Complaint management has a positive effect on the satisfaction of tourists:*

Hypothesis 5: *Complaint management has a positive effect on the loyalty of tourists to hotels.*

### **Satisfaction**

Kotler's (2003) definition of satisfaction emphasizes the relation between the perceived performance and customer expectations. If the expectations were met, the customer is satisfied. The perception of service quality reflects the evaluation of perceptions of services provided at specific points in time, while satisfaction is a judgment of quality formed over time. The evaluation of satisfaction by the customer undergoes several sentimental and emotional aspects that are frequently mistaken for a feeling of satisfaction itself. The distinction between these feelings is important to understand the core concept of satisfaction. In other words, satisfaction is the net result of all the

possible post-purchase responses, in other words, how well the product serves the wishes or needs of the customer.

According to Fornell (1992), the concept of cumulative satisfaction is formed as a result of a global consumer experience of a product or service. Under this definition, the customer satisfaction should partly consist of the experience and perception of a product or service, including among other factors the customer's experience in quality, service, marketing activities, mix of the company, image of the company and expectations of the product or service. In this case, it is proposed that:

Hypothesis 6: *Tourist satisfaction positively affects the loyalty.*

### **Image**

According to Nguyen and Leblanc (2001), the company's image is the impression created in the mind of consumers and is related to tangible and behavioral attributes, such as the company name and variety of products. Johnson *et al.* (2001) define image as the result of a more recent consumer experience or client satisfaction.

Baptista (2003) argues that the image of a company or tourism destination transmitted to the market constitutes an essential element in marketing strategy, which can put it ahead of the competition. Baptista (2003) also claims the company's image can be associated with a brand, for the purpose of affecting and motivating current and potential customers to choose their services. The brand image is subjacent to the standardization of the provided service, offering a guarantee of efficiency inherent in the brand.

In the Norwegian model, image is viewed as both a consequence of satisfaction and an antecedent of customer loyalty. Therefore, the following hypotheses were tested:

Hypothesis 7: *Tourist satisfaction has a positive effect on the hotel's image;*

Hypothesis 8: *The hotel's image affects positively the tourist's loyalty.*

### **Affective Commitment**

The affective commitment is directed at the emotional part; it captures the affection that customers feel toward a brand or company and the resulting level of involvement and confidence. This serves as a psychological barrier to the departure of customers.

To Müller *et al.* (2005), a committed individual makes a considerable effort in favor of the organization and has the following characteristics: (1) a strong belief in and acceptance of the objectives and values of the organization; (2) a tendency to manifest a

considerable effort in favor of the organization; and (3) manifestation of a strong desire to remain a member of the organization. From this definition, it is seen that customers with a high degree of commitment show an internalization of the values and objectives of the organization, and consequently they tend to gravitate to it. From this point of view, the individuals have an active posture. They are willing to give their utmost commitment, contributing positively to the organization.

Therefore, the following hypotheses will test the affective commitment:

Hypothesis 9: *Tourist satisfaction has a positive effect on affective commitment;*

Hypothesis 10: *Affective commitment from tourists has a positive impact on loyalty.*

### **Calculated Commitment**

Also known as instrumental commitment, it is defined in terms of rewards and personal costs, bound to the condition of being a member of the organization or not. Commitment is the product of a psycho-social mechanism of trades and expectations between the individual and the organization, in aspects such as salary, status, freedom and satisfaction.

According to Becker (1960), this commitment is a consequence of the worker's perception of the exchanges established with the organization. The individual remains in the organization because of the costs and consequences associated with leaving. In other words, the worker will choose to remain in the company as long as the choice is beneficial. As soon as the worker perceives a shortfall on the returns, he will probably quit the company.

The calculated commitment to the Norwegian model is considered the most rational and led to the economic aspect of the transaction, including the intensity in which the clients are retained by a company's service or location. Therefore, the hypotheses taken are:

Hypothesis 11: *The tourist's satisfaction has a positive effect on the calculated commitment;*

Hypothesis 12: *The calculated commitment of the tourists has a positive impact in their loyalty.*

### **Loyalty**

Hallowell (1996) defines customer loyalty as a predisposition to purchase a product or service offered by a company a second time. Therefore, it is not enough to be a satisfied customer, it is necessary that the customer also feels the desire of returning to acquire

the product or service again. According to Fornell (1992), loyalty is the consequence of several interactions between the parts, through which the consumer gains trust in the services of the company. It may be defined as an intention or behavior related to the product or the supplier.

Through the new customer satisfaction index models, the information regarding the customer perceptions of the quality of these products and services is evaluated. Loyalty is measured by the intention of reacquisition and acceptance of the price.

## **METHOD**

Seeking to deepen the knowledge of the tourist visiting the *Azores* and their experience at the destination, a quantitative-descriptive field research was made with 107 tourists who visited São Miguel between December 2009 and April 2010. The questionnaire used was prepared to analyze the profile of the tourists, as well as the variables leading to their satisfaction and loyalty.

The questionnaire was based on the Norwegian model (NCSB) proposed by Johnson *et al.* (2001) which made it possible to study the profile of the customers, the expected and perceived quality of a organization's services, where the measurement variables of the model influenced the latent variables of customer satisfaction and loyalty. The issues related to the "Measurement of Quality" used the measurements of the SERVQUAL model, for measuring the quality of services.

## **DATA PROCESSING AND RESULTS**

The data retrieved from the questionnaire was used to support an explanatory model of the perception of quality, satisfaction and subsequent loyalty of the tourists related to their stay at the hotels in São Miguel, while on vacation or business there. The model was specified in order to consider the determinants of satisfaction of these agents.

### **Sample characterization**

The results related to the socio-demographic characterization of the respondents are presented according to the following variables: gender, age, nationality, civil status, education degree, income, Azorean ancestry, purpose of visit, length of stay and type of accompanying persons.

Among the respondents to the questionnaire, 52.80% were female and 47.20% were male. Regarding age, 20.79% of the respondents were between the ages of 11 and 30.



Those between ages 31 and 50 made up 34.66% of the respondents, while 30.69% of respondents were in the 51-70 age bracket. Respondents older than 71 comprised 13.86% of the sample. The sample is diversified in terms of nationality. However, most of the respondents are of Portuguese origin (37.89%), followed by the Spanish and Brazilians, each with 7.37%, and the Americans with 3.16%.

Of all those responding, 35.35% claimed to be divorced or single, while 64.65% stated they were married. In terms of education, 2.91% of the respondents lacked qualifications, while 17.48% finished elementary school. Those with preparatory education made up 11.65% of the respondents questioned. The number of respondents increases from this point on, with 25.24% finishing high school and 42.72% being college graduates.

It has been shown that 8.99% of the respondents claimed to have an annual income under 6,000€, while 21.35% claimed an annual income between 6,001€ and 8,000€. Of those questioned, 10.11% claimed to have an income between 8,001€ and 10,000€, while 59.55% earned more than 10,001€.

The vast majority of tourists (67.29%) were on vacation during their stay at the hotels. Of the remainder, 15.89% arrived in São Miguel to visit family and friends; 10.28% were travelling on business. Only 6.54% presented other motives. It was confirmed that 26.26% of the respondents were of Azorean ancestry, while 73.74% claimed otherwise. Regarding the duration of their stay at São Miguel hotels, 62.26% of the respondents stayed less than seven days, with 31.14% of the respondents staying one to two weeks. Only 6.60% of the guests stayed longer than three weeks. Most of the tourists were accompanied by a spouse/partner (28.30%) or a group of adults (27.36%). Of the remaining tourists, 19.81% were accompanied by family with children and 15.10% were alone. A small part of the sample, 9.43% was on business since they were accompanied by colleagues or business partners.

### **Principal Components Factorial Analysis**

This technique was applied for the purpose of facilitating access to information worked out related to the perception of different quality measurements of the offered services, as well as satisfaction and subsequent loyalty of the guests. This method analyses the correlations between a set of variables. The analysis results in the specification of a number of factors. “These factors are new variables defined by linear combinations of

the analyzed variables, which theoretically explain how the initial variables are correlated” (Hill and Hill, 2005).

The evaluation of relationships between the variables was based on the coefficient of correlation as a means of association, with the analysis technique of the main components being evaluated afterwards by the statistical tests of Kaiser-Meyer-Olkin (KMO) and Barlett.

The KMO statistics which vary between 0 and 1 compare the correlations of zero order with the partial correlations observed between the variables. According to Pestana and Gageiro (2000), the evaluation scale of the KMO test to verify the correlation between the variables for the analysis is made by value intervals, corresponding to: (1) between 1 and 0.9 is an excellent factorial analysis; (2) between 0.8 and 0.9 is good; (3) between 0.7 and 0.8 is average; (4) between 0.6 and 0.7 is reasonable; (5) between 0.5 and 0.6 is bad; and (6) lower than 0.5 is an unacceptable factorial analysis.

For this study, and according to Table 1 (Principal Components Factorial Analysis), the factors of tangibility, trust, responsiveness and empathy present a KMO between 0.7 and 0.8 demonstrating an average correlation between the variables, and consequently an adequate factorial analysis. Price is a factor with a reasonable factorial analysis, while security, image, customer service and affective commitment display a bad factorial analysis.

When Barlett’s test is associated to a significance level of 0.000, it leads to rejection of the hypothesis that the correlation matrix of the population is the identity, showing that it is adequate for the application of this technique.

When examining the variance percentage explained by factor, it appears that the linear combination formed by the first factor, tangibility, explains 75.77% of the total variance. Confidence explains 73.27% and responsiveness 88.70%. Security and empathy explain 88.52% and 79.45% respectively. The price factor explains 63.24%, image explains 80.61%, customer service explains 79.3% and affective commitment explains 67.50% of the total variance.

On the other hand, the Cronbach’s alpha ranges from 0 and 1, and it is one of the most used measurements to verify the internal consistency of a group of variables. It is considered that internal consistency is: (1) very good for an alpha between 1 and 0.9; (2) good when the alpha is between 0.8 and 0.9, (3) reasonable for an alpha between 0.7 and 0.8; (4) weak when the alpha is between 0.6 and 0.7 and (5) unacceptable when the alpha is lower than 0.6.

By analyzing the internal consistency of the factors which determine satisfaction and loyalty of the tourists toward the São Miguel hotels, it was shown that responsiveness and empathy have a satisfactory internal consistency; tangibility, confidence, security and customer service have a good internal consistency. Price and image have a reasonable internal consistency. Only affective commitment has an unacceptable internal consistency.

Table 1. Principal Components Factorial Analysis.

Factors		KMO	Bartlett	VE%	Alpha	
Q1 to Q3	Quality	Tangibility	0.710	0.000	75.765	0.870
Q4 to Q7		Trust/Reliability	0.797	0.000	73.271	0.884
Q8 to Q10		Responsiveness	0.768	0.000	88.697	0.942
Q11 to Q12		Security	0.500	0.000	88.520	0.867
Q13 to Q16		Empathy/Accessibility	0.751	0.000	79.446	0.911
Q1 to Q16	Quality		0.796	0.000	72.350	0.935
P1 to P3	Price		0.600	0.000	63.246	0.723
I1 to I2	Image		0.500	0.000	80.607	0.771
C1 to C3	Complaint Management		0.500	0.014	79.300	0.823
A1 to A2	Affective Commitment		0.500	0.001	67.502	0.523

After the creation of a connection diagram developed in the AMOS module of the SPSS program including all the quality measurements (Q1 to Q16), constituting only one factor, we can confirm through Table 1 that the values from the tests improve. Therefore, the quality factor presents a KMO of 0.796 representing an average correlation between the variables and consequently a satisfactory factorial analysis. Bartlett's test has associated a significance level of 0.000, meaning that it accepts the model with 99% of reliability and an error of 1%. This factor even explains 72.35% of the total variance and has a satisfactory internal consistency ( $\alpha = 0.935$ ).

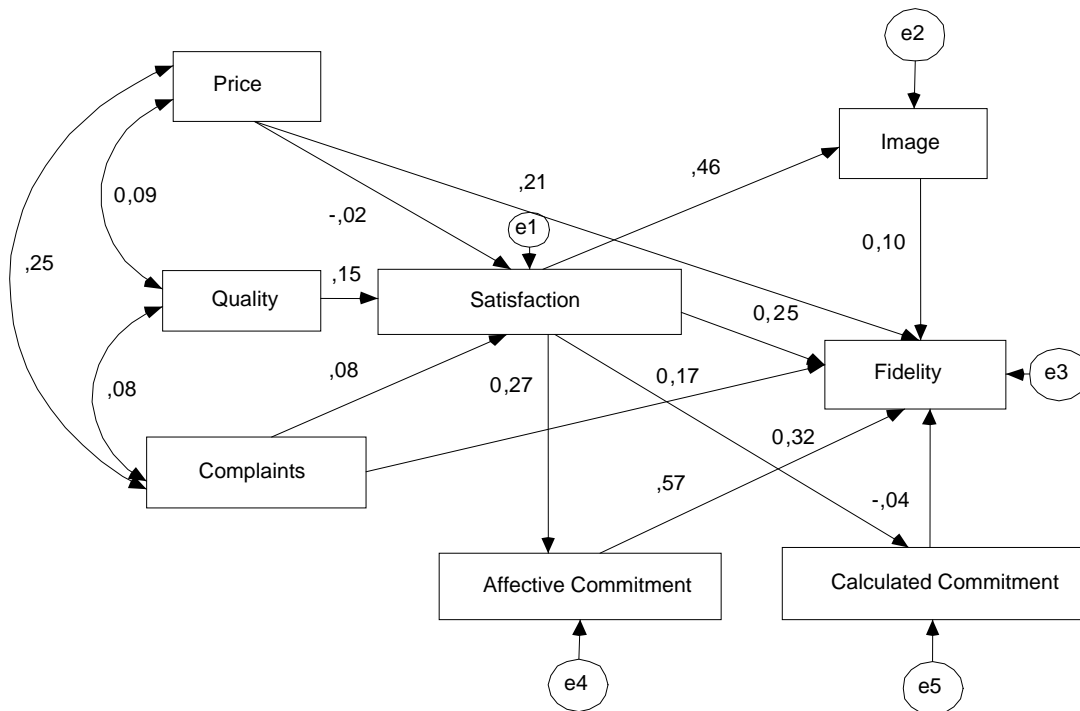
### Model of structural equations

In the sequence of processing data, we proceeded with the analysis of the research results. This analysis determines the extent to which the formulated hypotheses will be confirmed.

When using the technique of structural equations, there is a need to adjust the Norwegian model both from a structural and a measurement point of view. The structural model considers the adaptation of the data to the model (Hair *et al.*, 2010).

Figure 1 (Norwegian model NCSB Results) presents the summary of the results found in analysis of the relationship of preceding variables of satisfaction and loyalty of the tourist toward the São Miguel hotels.

Figure 1. Norwegian model NCSB Results.



Taking into account the existence of missing values because the questionnaire allowed for a sample with asymptotic distribution, we resorted to the adjustment indexes identified in Table 2 (Model adjustment indicators).

The low value of the chi-square is a sign of good adherence of the data to the model. The same conclusion can be inferred by the Root Mean Square Error of Approximation (RMSEA), which presents a value below the acceptable range for this indicator.

It can also be confirmed that the statistical test was unable to accept the null hypothesis of equality between the covariance matrixes of the collected data simulated by the proposed model (p-value equal to zero). Therefore, the absolute adjustment did not occur. The incremental indexes present values above 0.9 (NFI=0.932), which is recommended by Hair *et al.*, (2010). The other main incremental adjustment indexes (IFI e CFI) came quite close to the cutoff of 0.90. The results of each hypothesis are discussed below.

Table 2. Model adjustment indicators.

Adjustment Measure	Recommended Value (Hair <i>et al.</i> , 2010)	Obtained Value
X <sup>2</sup>	-	47.53
P Sig.	-	0.000
NFI	> 0.9	0.932
IFI	> 0.9	0.934
CFI	> 0.9	0.960
RMSEA	< 0.05	0.047

### Results of the hypotheses tests

An initial analysis of the model from the perspective of the satisfaction antecedents led us to observe that quality is the factor with greatest impact on the satisfaction in the studied sample ( $b=0.151$ ). Hypothesis 1 is not rejected as verified in Table 3 (Hypotheses Estimated parameters). Such a finding is in accordance with the results of Fornell *et al.* (1996), who empirically confirmed that satisfaction is more influenced by quality than price or expectations. In this sense, organizations in this area of business must invest their efforts primarily in the quality of the services offered in order to have satisfied guests.

At the same time, Hypothesis 2 sustains that price influences satisfaction of the tourist. However, this hypothesis was rejected ( $\beta = -0.021$ ;  $t = -0.305$ ,  $p = 0.7610$ ). This result was also found in a manner similar to some studies of economic sectors by Fornell *et al.* (1996). Additionally, the hypothesis claiming that price influences loyalty in a positive manner (Hypothesis 3) was not rejected ( $\beta = 0.210$ ;  $t = 3.774$ ,  $p = ***$ ).

Table 3. Hypotheses Estimated parameters.

Relationship	Dependant Variable	Independent Variable	Estimated statistical parameters			
			Estimated Value	Estimated Error	t	p
H1	Satisfaction	Quality	0.151	0.042	2.216	**
H2	Satisfaction	Price	-0.021	0.041	-0.305	0.761
H3	Loyalty	Price	0.210	0.042	3.774	***
H4	Satisfaction	Complaints	0.076	0.040	1.089	0.276
H5	Loyalty	Complaints	0.167	0.042	-2.986	**
H6	Loyalty	Satisfaction	0.250	0.087	-0.369	*
H7	Image	Satisfaction	0.465	0.096	7.679	***

H8	Loyalty	Image	0.104	0.051	-1.707	**
H9	Affective Commitment	Satisfaction	0.267	0.093	-4.049	***
H10	Loyalty	Affective Commitment	0.570	0.052	10.202	***
H11	Calculated Commitment	Satisfaction	0.324	0.052	-4.818	***
H12	Loyalty	Calculated Commitment	-0.044	0.099	-0.759	0.448

The fourth hypothesis was rejected according to the values given by their parameters ( $\beta = 0.076$ ;  $t = 1.089$ ;  $p = 0.276$ ). Hypothesis 5 was not rejected. This means that customer service does not have a positive effect on satisfaction ( $\beta = 0.076$ ,  $t = 1.089$ ,  $p = 0.276$ ). However, it was regarded as having a positive effect on loyalty ( $\beta = 0.167$ ,  $t = -2.986$ ,  $p = **$ ). Therefore, good management of customer service means that after departing, the tourist will return to the same hotel. This result agrees with the study by Johnson *et al.* (2001), who concluded that the tourist making a complaint and knowing the organization will take care of it by attempting to solve it in the best possible manner is good for the organization.

Hypothesis 6 assumes that the guest's satisfaction has a positive influence on the customers' loyalty. In fact, this relation is not rejected by the parameters  $\beta = 0.250$ ;  $t = 0.369$  and  $p = *$ . The results demonstrate the importance of hotels investing their efforts in this aspect.

Hypothesis 7--the company's image has a positive influence on tourists' satisfaction--was not rejected. In the same manner, the hypothesis that image influences tourists' loyalty (Hypothesis 8) was also accepted. Image is strongly related to the tangible and behavioral attributes, which are connected to the company's name, variety of products and services offered, ideology and quality transmitted to the guests.

Hypotheses 9 to 12 analyze commitment. Table 3 shows that satisfaction influences affective commitment (more emotional) by the studied parameters, namely  $\beta = 0.267$ ,  $t = -4.049$ ,  $p = ***$  with the latter influencing loyalty ( $\beta = 0.570$ ,  $t = 10.202$ ,  $p = ***$ ). On the other hand, tourists' satisfaction has a positive effect on the calculated behavior (more rational) ( $\beta = 0.324$ ,  $t = -4.818$ ,  $p = ***$ ). However, the final hypothesis, 12, was rejected since the relationship between the factors of calculated commitment and loyalty have the following values for the parameters  $\beta = -0.044$   $t = -0.759$   $p = 0.448$ .

Table 4 (Tests of hypotheses on the relationship between the factors) presents a summary of the results from the analysis of the relationship between the values of satisfaction and loyalty of the tourists to the hotels of São Miguel.

Table 4. Tests of hypotheses on the relationship between the factors.

<b>Hypothesis</b>	<b>Relationship Type</b>	<b>Final Result</b>
<b>H1:</b> Quality has a positive effect on the satisfaction of tourists.	Positive	H <sub>0</sub> Not Rejected
<b>H2:</b> The price factor positively affects the satisfaction of tourists at hotels.	Negative	H <sub>0</sub> Rejected
<b>H3:</b> The price factor positively affects the loyalty of tourists to the hotels.	Positive	H <sub>0</sub> Not Rejected
<b>H4:</b> Complaint management has a positive effect on the satisfaction of tourists.	Positive	H <sub>0</sub> Not Rejected
<b>H5:</b> Complaint management has a positive effect on the loyalty of tourists to hotels.	Positive	H <sub>0</sub> Not Rejected
<b>H6:</b> Tourist satisfaction positively affects the loyalty.	Positive	H <sub>0</sub> Not Rejected
<b>H7:</b> Tourist satisfaction has a positive effect on the hotel's image.	Positive	H <sub>0</sub> Not Rejected
<b>H8:</b> The hotel's image affects positively the tourist's loyalty.	Positive	H <sub>0</sub> Not Rejected
<b>H9:</b> Tourist satisfaction has a positive effect on affective commitment.	Positive	H <sub>0</sub> Not Rejected
<b>H10:</b> Affective commitment from tourists has a positive impact on loyalty.	Positive	H <sub>0</sub> Not Rejected
<b>H11:</b> The tourist's satisfaction has a positive effect on the calculated commitment.	Positive	H <sub>0</sub> Not Rejected
<b>H12:</b> The calculated commitment of the tourists has a positive impact in their loyalty.	Negative	H <sub>0</sub> Rejected

## FINAL COMMENTS

The present study deals with the theme of satisfaction, more precisely the quality of the services provided by the São Miguel hotels and their implication on satisfaction and loyalty of the tourists. The island of São Miguel, with its strong and rich cultural identity and natural heritage is capable of becoming a great tourist attraction, as shown in the opinions expressed in the questionnaire used.

The present study applied the Norwegian model of satisfaction index to the tourists who stayed at the São Miguel hotels from December 2009 to April 2010. The purpose was to evaluate satisfaction and loyalty of the tourists regarding their stay at the hotels. Therefore, it was confirmed that a large part of the tourists who visited São Miguel were Portuguese, between 31 and 50 years of age. The majority were accompanied by a group of adults or spouses spending a few days on vacation, staying less than a week at the hotels.

A technique of structural equations was used and the results revealed that the Norwegian model partially confirms its applicability in the São Miguel hotel business. Of the 12 relationship hypothesis specified, 10 confirmed their relationship, with the exception of price which has no effect on satisfaction and the calculated commitment which have no influence on guests' loyalty. A possible explanation for the first case is that the price differences for accommodations in São Miguel are minimal. The second case is explained by the fact the guests remained loyal to the same hotel owing to the costs and benefits associated with their departure.

The results found in this study are consistent with the studies by Fornell (1992) and Johnson *et al.* (2001), since the customer's loyalty is not solely in terms of satisfaction. There are other factors influencing it which were confirmed in this study. Given the model formulated, the research methodology and the results presented, it is considered that the objectives defined prior to this study were achieved. However, other factors could have been added to the model and improved the variability of the explanation in both satisfaction and loyalty of the tourist.

### **Implications for Practice**

The problems of consumer satisfaction are difficult for managers, especially in the hotel sector where performance of hotel units is indispensable to strategic success. Within this context, having satisfied guests must be the primary objective. The questionnaire used during this study enables hotel units to make specific quality analyses according to the perception of their guests. These analyses can be made individually or by several units within a hotel chain. To that end, the results obtained in this study can be readily applied by managers of these units.

The constant search for guest satisfaction and loyalty will make it possible for the hotel business to sustain itself in today's fiercely competitive market. The search for quality in hotel services is the search for new way of handling of the market. This study



concludes that quality has the greatest impact on tourists' satisfaction and that affective commitment has the greatest influence on tourists' loyalty. In this sense, the organizations in this branch of services must invest their efforts primarily in the quality of their services to satisfy their guests.

Providing quality service must be considered an essential strategy for the success and survival of any company, and represents a challenge to the managers. Therefore, by recognizing the quality factors influencing the tourists' satisfaction and the reasons for the choice of the hotel, as assessed by the guests, will allow the managers to draw conclusions, indicators on how to generate added value to their units, tailoring their services to the specific needs of each guest.

### **Limitations from the study**

Any empirical study of this kind has limitations, whether in the methodology that was followed or in the way the field research was conducted. In terms of methodology, there was an immediate need to select the factors relevant to the explanation of general satisfaction.

Although we could have incorporated a greater number of explanatory variables, this would have made the questionnaire longer, and respondents might have declined to complete it. Therefore, it was decided based on the literature review to reduce that aspect to eight attributes that are generally accepted as relevant in the evaluation of the quality of service and consequently the explanation of satisfaction and loyalty from the tourist. At the same time, it would be desirable if the data were to be collected over a greater length of time to reduce from the possible influence of seasonality. However, restrictions imposed by the hotel units dictated that the field work would not exceed five months.

Another limitation results from the fact the study was done on only one island, therefore the samples considered do not allow a generalization to the other islands in the archipelago even though some of the hotels under study have units on those islands. These limitations do not detract from the importance of this study. Instead it provides fundamental information to validate the NCSB model and presents data for improvements to be made by the hotel managers.

### **Suggestions for future research**

Based on these results, future research should be developed with the new Norwegian model proposed by Johnson *et al.* (2001), in the other Azores islands in order to arrive at a greater understanding of the factors that are the most influential in tourist satisfaction and loyalty. The collection of data from this study was carried out during the off seasons for the hotel business; therefore it is recommended that future studies be done during the holiday seasons, since tourists travelling during other seasons may have different opinions.

It is worth highlighting that the employed variables of the model used in this work must be viewed as a reference. Therefore, it is recommended to model the existing factors, in addition to working up others that may be a part of the system of work of each company, in the sense of improving quality by making the guests' satisfaction and loyalty a reality.

Another suggestion would be to broaden the scope of the study to new forms of hotel management, which already have a significant demand, as is the case of tourism in rural areas and resorts related to health and beauty. Finally, this study contributes to the national index models that have evolved, seeking to monitor the constant changes in the provision of institutional services. Consequently, it is indispensable to carry out new studies in an effort to expand and evaluate, improving existing models of customer satisfaction and loyalty.

## REFERENCES

- Baloglu, S. (2002). Dimensions of customer loyalty: Separating friends from well wishers. *Cornell Hotel and Restaurant Administration Quarterly*, 43(1), 47-59.
- Baptista, M. (2003). Turismo - Gestão Estratégica. *Editorial Verbo*, Lisbon.
- Becker, H.S. (1960). Notes on the concept of commitment. *The American Journal of Sociology*, 66(1), 32-40.
- Bloemer, J., & Ruyter, K. (1998). On the relationship between store image, store satisfaction and store loyalty. *European Journal of Marketing*, 32(5/6), 499-513.
- Boulding, K., Kalra, A., Staelin R., and Zeithaml, V.A. (1993). A dynamic process model of service quality: From expectations to behavioral intentions. *Journal of Marketing Research*, 30, 7-27.
- Buttle, F. (1996). SERVQUAL: Review, critique, research agenda. *European journal of Marketing*, 30(1) 8-32.
- Carman, J.M. (1990). Consumer Perceptions of Service Quality: An Assessment of the SERVQUAL Dimensions. *Journal of Retailing*, 66(1), 33-55. doi: 10.1016/S0148-2963(99)00084-3.
- Cronin, J.J., & Taylor, S.A. (1992). Measuring service quality: A re-examination and extension. *Journal of Marketing*, 56(3), 55-68. doi: 10.2307/1252296.
- Fornell, C. (1992). A national customer satisfaction barometer: The Swedish experience. *Journal of Marketing*, 56(1), 6-21. doi: 10.2307/1252129.
- Fornell, C., Johnson, M.D., Anderson, E.W., Cha, J., & Bryant, B.E. (1996). The American customer satisfaction index: Nature, purpose, and findings. *Journal of Marketing*, 60(4), 7-18. doi: 10.2307/1251898.
- Freire, A. (2005). Gestão da satisfação e fidelidade do cliente: Um estudo em uma instituição de ensino superior. Master's Thesis, Federal University of Rio Grande do Norte, Brasil.
- Gallarza, M.G., Saura, I.G., & Garcia, H.C. (2002). Destination image: Towards a conceptual framework. *Annals of Tourism Research*, 29(1), 56-78. doi:10.1016/S0160-7383(01)00031-7.

Gengqing, C. (2005). A study of developing destination loyalty model. PhD Thesis, Oklahoma University, USA.

Grigoroudis, E., & Siskos, Y. (2004). A survey of customer satisfaction barometers: Some results from the transportation-communications sector. *European Journal of Operational Research*, 152(2), 334-353

Hair, J.F., Black, W.C., Babin, B.J., & Anderson, R.E. (2010). *Multivariate data analysis*, 7<sup>th</sup> Edition. Upper Saddle River: Prentice Hall.

Hallowell, R. (1996). The relationship of customer satisfaction, customer loyalty profitability: An empirical study. *International Journal of Service Industry Management*, 7(4), 27-42.

Henry, C.D. (2000). Is customer loyalty a pernicious myth? *Business Horizons*, 43(4), 13-16.

Hill, M., & Hill, A. (2005). *Investigação por Questionário*. Lisboa: Edições Sílabo.

Johnson, M.D., Gustafsson, A., Andreassen, T.W., Lervik, L., & Cha, J. (2001). The evolution and future of national customer satisfaction index models. *Journal of Economic Psychology*, 22(2), 217-245.

Kotler, P. (2003). *Marketing management*, 11th Edition. Upper Saddle River: Pearson Education International.

Martilla, J. A., & James, J.C. (1977). Importance-performance analysis. *Journal of Marketing*, 41(1), 77-79.

Medeiros, M. (2005). Seniorhotelqual: Escala para avaliação das percepções da qualidade na hotelaria tradicional. Master's Thesis, Azores University, Portugal.

Müller, M., Rauski, E.F., Eyng, I.S., & Moreira, J. (2005). Comprometimento organizacional: Um estudo de caso no supermercado "Beta". *Revista Gestão Industrial*, 1(4), 93-100.

Nguyen, N., & Leblanc, G. (2001). Corporate image and corporate reputation in customers' retention decisions in services. *Journal of Retailing and Consumer Services*, 8(4), 227-236. doi:10.1016/S0969-6989(00)00029-1.

Oliver, R.L. (1997). *Satisfaction: A behavioral perspective on the consumer*. New York: Irwin/McGraw-Hill.

Ostrowski, P.L., O'Brien, T.V., & Gordon, G.L. (1993). Service quality and customer loyalty in the commercial airline industry. *Journal of Travel Research*, 32(2), 16-24.

Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12-37.

Pereira, M. (2006). Factors affecting customer satisfaction and loyalty: a study on mobile phone sector. Master's Thesis, Santa Catarina Federal University, Brasil.

Pestana, M.H., & Gageiro, J.N. (2000). *A análise de dados para Ciências Sociais. A complementaridade do SPSS*. Lisboa: Edições Sílabo:

Pinto, S. (2008). Empresas de hotelaria: Uma análise económica e financeira. Master's Thesis, ISCTE Business School, Portugal.

Pritchard, M.P., & Howard D.R. (1997). The loyal traveler: Examining a typology of service patronage. *Journal of Travel Research*, 35(4), 2-10. doi: 10.1177/004728759703500417.

Shanahan, K.J., & Hyman, M.R. (2007). An exploratory study of desired hotel attributes for American tourists vacationing in China and Ireland. *Journal of Vacation Marketing*, 13(2), 107-118. doi: 10.1177/1356766707074735.

Woodside, A.G., & Lysonski S. (1989). A general model of traveler destination choice. *Journal of Travel Research*, 27(4), 8-14. doi: 10.1177/004728758902700402.

Zeithaml, V.A., Berry, L.L., & Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing*, 60(2), 31-46.