

**015-0867**

**The offline and online channels for requesting tourist services**

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**POMS 21st Annual Conference**

**Vancouver, Canada**

**May 7 to May 10, 2010**

## **Abstract**

This study aimed to investigate the perceived quality in attributes of attendance of travel agencies that are located in São Paulo city and the willingness of migration of their customers to the Internet in their behavior of requesting a tourist service. Based on the models SERVQUAL by Parasuraman et al (1988), SERVPERF by Cronin and Taylor (1992 and 1994), TAM2 by Venkatesh and Davis (2000), two researches were carried out, one of qualitative nature and the other one of quantitative nature, along with tourist service users. For the analysis of the results, the cluster analysis technique was applied. Through it, some homogeneous groups of users were obtained regarding the levels of evaluation of quality attributes of tourism agencies and the variables of TAM2 model.

The study revealed that there is not an inverse relation between the quality of services of tourism agencies (offline channel) and intention level of requesting tourism services through Internet (online channel). Thus, the tourism companies may consider the Internet as a partner in the process of conquest and retention of clients.

Keywords: service quality, Internet.

## **1. Introduction**

Currently, the tourism sector is one of the most important economic activities in the world in terms of financial transactions. According to the Ministry of Tourism (2008), foreign tourists spent in Brazil, between April and June 2008, a total of US\$ 1.2 billion, representing a 17% increase when compared to the same period of 2007 (US\$ 1.1 billion).

Tourism and hospitality activities have developed and improved, through the professionalization of companies and individuals that, directly or indirectly, act in the sector, due to the market pressure from consumers and more demanding customers concerning the

services provided. At the same time, the technological modernization is also considered to be one of the key factors to stimulate the development process of the sector. (MARCOVITCH, 1996 *apud* NIÑO, 2009).

Löbler *et al* (2006) state that several technologies contribute to change the scenario of the tourism sector, including the Internet, a technology that alters and stimulates processes, structures and even cultures, with changes that offer a new channel of communication with the market. To Cano *apud* Löbler *et al* (2006), the Internet has enabled the appearance of virtual organizations, that is, organizations that integrate dynamically, through information technology (IT), demands and resources.

Therefore, with the development of information technology and the advent of the Internet, a restructuring in the tourism market is inevitable. In this context, travel agencies have been increasingly forced to innovate and apply modern management techniques to overcome competition in the industry.

Dias (2005) states that the Internet consolidates itself as a powerful vehicle of information, very useful in the tourism sector, as it allows all users to have access to every possible destination. At the same time, business transactions over the Internet have shown encouraging results that indicate opportunities to be explored in order to raise the bar in terms of excellence for tourism service companies (CRISPIM and DULTRA, 2005).

Therefore, it is essential that travel agencies adapt to the new trends in information technology and use the benefits associated with the Internet as a tool of communication and access.

The Internet can be a powerful vehicle to spread information, providing a broader and consistent reference to the user on its choice of tourism partners (travel companies, destination hotels, etc). The use of Internet to access these pieces of information may occur with or without support from travel agencies. Thus, the Internet can be seen by agencies as one of the triggers of the bid process, depending on how its impact is seen by them.

The possibility of independence from traditional channels (travel agencies) when ordering package tours adds a controversial image of the Internet's role from the perspective of travel agencies. Despite its contribution as a vehicle of information, there is a risk that this channel is seen as a competitor by travel agencies (NIÑO, 2003; GUARDIA *et al*, 2005).

In this sense, authors such as Flecha *et al* (2002) argue that the current technology variations in the business environment challenge the functions of distribution and sales of tourism products carried out by travel agencies. Crispim and Dultra (2005) state that although the Internet have great potential to influence ways of doing business in the tourism sector, its use is still quite limited in terms of disclosure and, mainly, of transaction and customer relationship, as travel agencies still consider it a competitor in attracting users.

Therefore, a question that rises from this new technologic scenario is the possibility of migration of current and potential users to the exclusive use of Internet in the selection and hiring of products and/or travel services. This trend may come from the verification of gaps in the quality of services provided by agencies, which could be supplied directly via Internet.

In this scenario, we may ask the following question: Is there an inverse relationship between the quality assessment in the selection and hiring process of travel services by *offline* channels (travel agencies) and the intention of migration to the *online* channel (Internet)?

The objective of this study is to assess the degree of quality perceived when package tours are ordered and the tendency to adopt the Internet in the process of hiring this service, which could compromise new service orders through the traditional channel.

## **2. Literature Review**

The following sections present the concepts of service quality, scales for measuring service quality, tourism services attributes and technology acceptance models.

## 2.1. Service quality

Given the strong competition in the services segment, companies need to monitor the quality of services from the consumer's perspective, including aspects that are part of its evaluation. Amboni (2002) *apud* Masano (2006, p.28) considers necessary to have a model of how the service quality is perceived by users. According to the author, when a service provider understands how the services will be evaluated by users, it is possible to identify how to manage these evaluations and how to influence them towards the intended direction.

Lovelock and Wright (2003) state that when a customer evaluates the quality of a service, such customer is judging according to a certain internal standard that existed prior to the service experience. This internal standard to judge the service quality, according to the authors, would be the basis for the expectations.

The main goal when improving the quality of a service is to narrow the gap between expectation and perception of quality in the provision of such service.

In 1983, Zeithaml *et al.* (1990) started an extensive research in the area of service quality, and some of its most important by-products were (i) a proposal for the definition of service quality; (ii) understanding service quality as a multidimensional concept; (iii) the service quality model based on gaps, and (iv) the SERVQUAL scale as an instrument for measuring service quality.

In the early 1990s, Cronin Jr. and Taylor (1992) questioned several propositions of Zeithaml *et al.* (1990) and started a productive debate by proposing a new methodology to evaluate service quality called SERVPERF, in which service quality is essentially measured by the consumer perception. Therefore, Cronin Jr. and Taylor (1992), state that it is not necessary to quantify consumer expectations, which is the main difference between the two lines of research in this particular area.

To date, the approaches proposed by Zeithaml *et al.* (1990) and by Cronin Jr. and Taylor (1992) have come to be the ones most commonly used and mentioned in the literature on the quality of services.

### **2.1.1 SERVQUAL tool**

Zeithaml *et al* (1985 and 1993) conducted two surveys - qualitative and quantitative - to develop the SERVQUAL instrument, created to measure the perceptions of users regarding the quality of services.

The main conclusions underlying the qualitative study were: (1) the service quality can be expressed by the difference  $Q = P - E$ , where “Q” represents the perceived quality, “P” perceived performance and “E” expected performance; (2) there are a few key factors that influence consumer expectations: word of mouth, personal needs, experiences and external communications, and (3) ten general dimensions represent the evaluation criteria that consumers use to value the quality of a service: tangibles, reliability, responsiveness, competence, courtesy, credibility, security, accessibility, communication and understanding of the customer.

Based on these results, Zeithaml *et al* (1993) developed a quantitative research.

By narrowing results through a multivariate analysis, ten dimensions were reduced to five.

The final version of the SERVQUAL instrument is shown in Table 1.

**Table 1 – SERVQUAL dimensions**

<b>Dimension</b>	<b>Definition</b>	<b>Variables</b>
<b><i>Tangibles</i></b>	Physical facilities, equipment, personnel appearance and communication material.	<ol style="list-style-type: none"> <li>1. Modern equipment.</li> <li>2. Physical facilities.</li> <li>3. Personnel appearance.</li> <li>4. Visually attractive communication material.</li> </ol>
<b><i>Reliability</i></b>	Ability to perform the service dependably and accurately	<ol style="list-style-type: none"> <li>5. Providing services as promised.</li> <li>6. Ability and willingness to deal with customers' problems.</li> <li>7. Providing the appropriate service right from the first time.</li> <li>8. Providing services within the deadline given.</li> <li>9. Making no mistakes.</li> </ol>
<b><i>Responsiveness</i></b>	Willingness to help customers and provide immediate service	<ol style="list-style-type: none"> <li>10. Keeping customers informed about the delivery deadline of the service.</li> <li>11. Providing customers with prompt service.</li> <li>12. Willingness to help customers.</li> <li>13. Agility to respond to customers' demands.</li> </ol>
<b><i>Assurance</i></b>	Knowledge and courtesy of employees and their ability to inspire confidence	<ol style="list-style-type: none"> <li>14. Employees who inspire confidence.</li> <li>15. Making customers feel safe in their transactions.</li> <li>16. Courtesy by employees.</li> <li>17. Employees who have the knowledge to answer customers' questions.</li> </ol>
<b><i>Empathy</i></b>	Careful and exclusive attention provided to customers	<ol style="list-style-type: none"> <li>18. The company provides exclusive attention to the customers.</li> <li>19. Providing convenient business hours for all users.</li> <li>20. Demonstrate concern for customers' interests.</li> <li>21. Employees who understand customers' specific needs.</li> <li>22. Employees who provide personal attention to customers.</li> </ol>

SOURCE: adapted from ZEITHAML *et al*, 1993, p. 29-30.

### 2.1.2 SERVPERF tool

Cronin and Taylor (1992) relied on a quantitative research across four activities of the service sector (banking, pest control, dry cleaning and fast food) in a medium-sized city in the United States in the early 1990s to find the measurement that best represents service quality: SERVQUAL or SERVPERF.

Cronin and Taylor (1992) point out that quality is rather conceptualized as a customer's attitude towards the dimensions of quality, and shall not be measured by the differences between expectation and performance, but as a perception of performance, which can be represented by:  $Q_j = D_j$ , where "Q" represents the service quality assessment in relation to the "j" characteristic and "D" represents the perception of performance values for the service characteristic "j".

This model uses only the perceptions of users regarding the performance of the service provided by the company to measure the service quality. Salomi *et al* (2005, p.283) state that:

*"The clear distinction between the SERVQUAL and SERVPERF models has a great importance, as companies that are service providers need to know what is their primary goal, whether to have customers who are pleased with their performance or to provide services with a maximum level of perceived quality."*

On the other hand, Carman (1990) considers that the SERVQUAL scale is inappropriate, since there is little or no theoretical or empirical evidence that supports the importance of expectation-perception gap as a measure of service quality. Nevertheless, Cronin and Taylor (1992) - through an analysis based on structural equation modeling - show that the 22 items representing the dimensions of service quality, previously proposed by Zeithaml *et al* (1993), are well founded. Thus, these 22 items were used to evaluate performance in the empirical work of Cronin and Taylor (1992).

Based on statistical tests, these authors concluded that the SERVPERF instrument is more sensitive in depicting quality variations in comparison with SERVQUAL.

The two scales are presented as the most referenced approaches in the literature concerning the assessment of service quality (MEHTA; DURVASULA, 1998; ANGUR *et al.*, 1999; LASSAR *et al.*, 2000; MATOS; VEIGA, 2000; REIS, 2001; CARVALHO; LEITE, 2001;

GONÇALVES *et al.*, 2002; SURESHCHANDAR *et al.*, 2002; MELLO *et al.*, 2002, CUI *et al.*, 2003; MIGUEL; SALOMI, 2004; SALOMI *et al.*, 2005).

## 2.2 Attributes related to the assessment of Tourism Service Quality

The nature of travel agencies' services lies on assistance, mediation and travel arrangements. Therefore, it was decided to focus on issues of quality attributes more intangible-driven, disregarding the tangible dimension indicated by authors of the SERVQUAL scale (Zeithaml *et al.*, 1993).

Out of the 22 attributes used in the operationalization of the SERVQUAL scales of Zeithaml *et al.* (1993) and the SERVPERF of Cronin Jr. and Taylor (1992, 1994), only 12 are applicable to the assessment of the quality provided by travel agencies, scope of this study. Table 2 indicates the key attributes identified in the researches published.

**Table 2 - Attributes associated with the assessment of services provided by travel agencies**

Perception of performance of the service provided by travel agencies.	Dimension
Waiting time to be served	Responsiveness
Employees available and willing to serve	Responsiveness
Agility in the service	Responsiveness
Accuracy of information provided	Reliability
Service delivered as promised	Reliability
Offering the service within the deadline	Reliability
No mistakes made throughout the entire service provided by the agency	Reliability
Level of exclusive attention to each customer	Empathy
Employees who understand the specific needs of customers	Empathy
Courtesy by employees	Empathy
Behavior in face of problems and complaints	Assurance
Offering additional products and services (car rentals, transportation, meals).	Assurance

SOURCE: Adapted from Zeithaml *et al.* (1993), Cronin Jr. and Taylor (1992, 1994) and

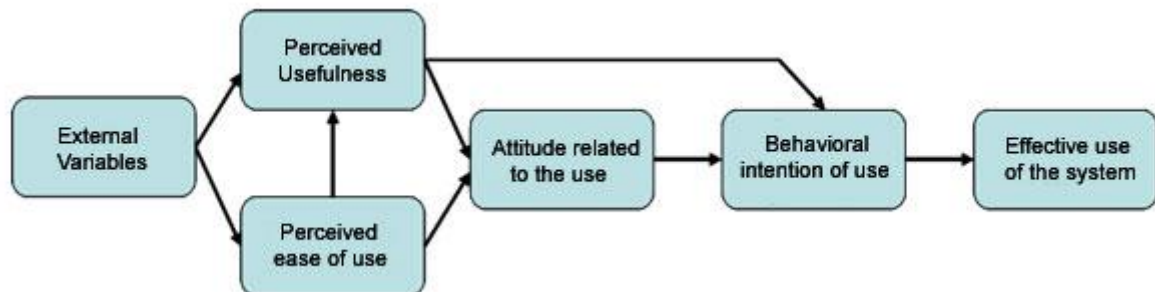
Masano (2006).

## 2.3 Technology Acceptance Models

### 2.3.1 Technology Acceptance Model (TAM) of Davis (1989) and Davis *et al* (1989)

Davis (1989) introduced the technology acceptance model (TAM). This model aims to assist those in charge for the implementation of information systems to assess their current and future acceptance. Among the several models for understanding the adoption of technology, the TAM is the most influential (DIAS *et al*, 2003) because it focuses on the reason why users accept or reject a particular information technology.

TAM was designed to provide a basis to map the impact of external factors over the internal factors of the individual, such as beliefs, attitudes and intention of use. The essential purpose of the model is to measure these impacts through the evaluation of a few key variables. The TAM model is sustained by two main concepts related to belief: **perceived usefulness** and **perceived ease of use**, as illustrated in Figure 1.



**Figure 1 - Technology Acceptance Model (TAM)**

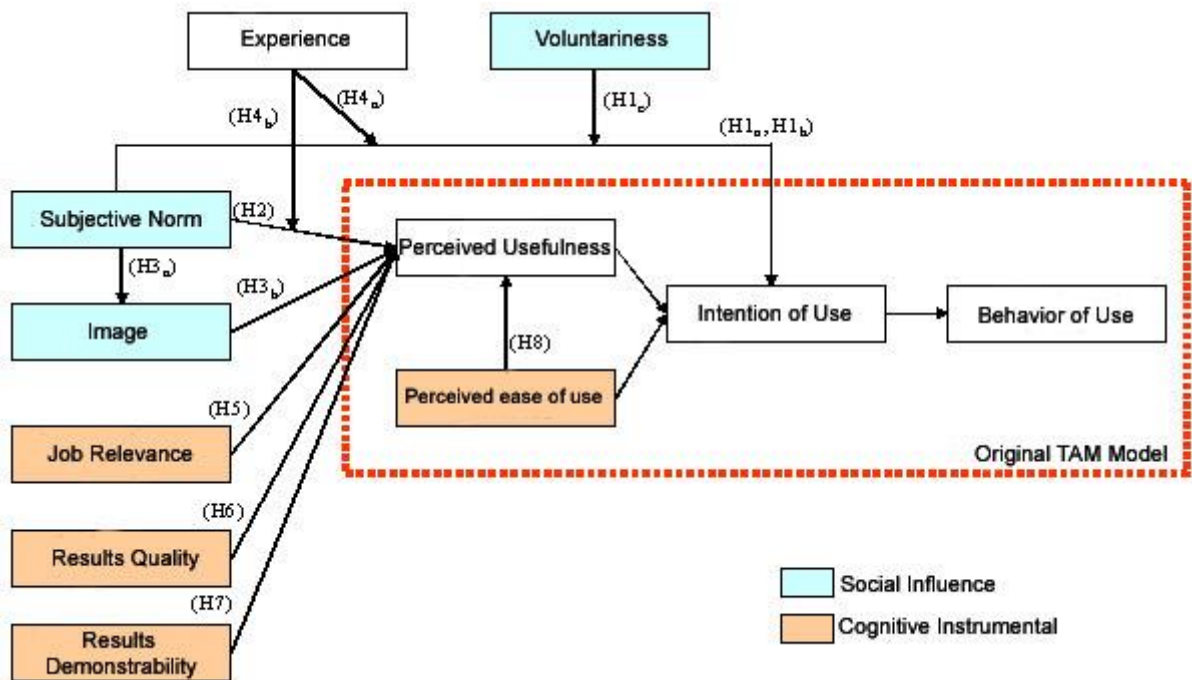
**SOURCE: DAVIS *et al*, 1989, p.985.**

In this model, perceived usefulness, according to Davis (1989, p.320), can be defined as: “the degree to which a person believes that the use of a particular system could improve their performance at work. In this context, the direct relationship between Perceived Usefulness and Behavioral intention of use is based on the idea of performance improvement. The perceived ease of use refers to the degree to which a person believes that the use of a particular system would be effortless.

The TAM model has a very ‘simplified’ structure, as it does not detail the external variables that may influence the perceived usefulness or the perceived ease of use.

### 2.3.2 Evolutions proposed to TAM: the TAM2 of Venkatesh and Davis (2000)

In order to detail the determinants of perceived ease of use and the concept of perceived usefulness, Venkatesh and Davis (2000) propose an extension for the TAM model, a model called TAM2, shown in Figure 2. The hypotheses of the TAM2 model are explained after figure 2.



**Figure 2 – TAM 2: extension of the TAM model**

SOURCE: VENKATESH and DAVIS, 2000, p.188.

H1a to H1c: there is a direct influence from the subjective norms on the intention of use; however, it is subject to the voluntariness of behavior. According to the authors: “subjective norms on intention to use means that people can choose to adopt a behavior, even though they

are not personally in favor of it, if they believe that an important reference believes they should adopt it, and they are motivated enough to agree to this reference.”

H2: subjective norms directly influence the perceived usefulness through internalization (when the individual incorporates the social influence in their own perception of usefulness) and also have indirect influence through identification (when a person uses or adopts a new system to achieve status and influence within a particular group).

H3<sub>a</sub> a H3<sub>b</sub>: the image is another concept of social influence incorporated to TAM2. Subjective norms influence the image, which influences the usefulness of use, because once the reference group of an individual believes that such individual should adopt a particular technology, such adoption will raise the social status of the adopter before the group.

H4<sub>a</sub> a H4<sub>b</sub>: the greater the experience of technology use, the lower the influence of subjective norms, as the greater the user’s knowledge about technology and how it works, the better are the results; as time goes by and with the experience gained in the use of technology, the individual no longer relies on third parties to form their perception of technology (usefulness, ease of use etc.) but continues to value the potential benefits in terms of social status, which may result from the use of the tool.

H5 to H8: As it relates to more objective variables (actions toward future goals, rational evaluation of alternatives), it is likely to indicate a better understanding of the relationship of these external variables with the perceived usefulness. Therefore, the process starts with the relevance to the function, defined as “a relevant function of the activities that the system can perform for the function of the individual,” leading to the confirmation of the quality of the result. However, a good result is not enough to ensure the adoption of a system unless there are evidences of the results, defined as “tangibility of the results from the use of innovation.” Finally, the TAM2 model also keeps the perceived ease of use proposed in the original TAM model.

The TAM2 model suggested that social influence processes (subjective norm, voluntarism and image) and cognitive instrumental processes (work relevance, production quality, evidence of results and perceived ease of use) are determinant variables on the perceived usefulness and intentions of use.

The TAM2 model will help increase the understanding about the user's behavior regarding the adoption of technology in tourism services during the selection and hiring process of tourism services.

### **3. Methodological Procedures**

The theoretical reference presented in this study supports the development of a methodological procedure for the application of a research in the evaluation of the service quality attributes of travel agencies and in benchmarking the adoption of the Internet as an exclusive channel of selection and hiring of tourism services.

To achieve the objective of this study, in 2008, a research was conducted in two phases (qualitative- exploratory research and quantitative-descriptive research). The qualitative research was carried out with 17 individuals living in São Paulo chosen by convenience and aimed to: (i) gather information on customer expectations with respect to quality attributes of travel agencies and (ii) ensure that the main factors determining the adoption of the Internet as a channel to select and hire tourism services were considered in the questionnaire to be applied in the second phase, validating its content.

Guidelines were applied for these purposes to explore the user's perceptions, desires, opinions and expectations with respect to quality attributes and concepts of the TAM2 model of Venkatesh and Davis (2000).

The second phase of the research was quantitative and descriptive and relied on a structured questionnaire, based on information obtained in the qualitative phase, as an instrument to collect data.

The population for this research consists of residents of São Paulo city, Class A, B and C (Brazilian criteria) with access to the Internet. According to E-bit company (2007), São Paulo is the state with the highest number of online shoppers. According to the National Commerce Confederation for Goods, Services and Tourism (2007), with respect to the travel agencies segment, São Paulo is the key source market with a 60% share. Therefore, we chose to limit geographical boundaries to the city of São Paulo.

The sample is non-probabilistic and was conducted through the Internet. For the data collection phase, E-bit provided support by sending an email to a list of online shoppers, indicating a link to the electronic questionnaire. Freitas *et al* (2006, p.47) consider that the data collection process through the Internet resembles the traditional process of research, since both procedures involve the phases of planning, implementation of the research, data processing and dissemination of results.

Given that it is a non-probabilistic process, thus not having a strict sample calculation, 250 interviews were set as the minimum goal, without a maximum limit. The final sample obtained was 404 respondents.

Essentially, the questionnaire for the quantitative research was prepared based on the scope and literature review of this study, as well as the issues raised during the qualitative research. For the final version of the questionnaire, a pre-test was carried out, through a personal application (direct contact between interviewer and respondent). Malhotra (2006) considers the personal interview to be the best way to perform a pre-test of the data collection instrument, even though the actual research will be performed through other means such as e-mail.

Before applying the data analysis techniques, it is required to pay attention to a few aspects involving the whole sample. Taking into account the limitations imposed by the types of scales used for the variables, the frequency of each variable, normality, the existence of missing answers and atypical remarks (outliers), descriptive statistics and coefficient of variation were analyzed.

#### **4. Analysis of results**

##### **4.1. Characterization of the sample studied**

With respect to the geographic region, the sample studied focused on the city of São Paulo, with 60% of the sample comprised of women. Out of the total sample, 47% are college graduates and 37% attended or are attending Graduate programs. With respect to the respondents' age, there was a predominance of individuals at ages between 35 and 44 years (35.5%). Regarding family income, the analyzed sample concentrated a higher number of individuals that earn over 20 times the minimum wage (38%), followed by a range of 10 to 20 times the minimum wage (32%).

With respect to behavior during the process of selection and purchase of tourism services, it was possible to identify two predominant types of behavior: contact with the travel agency via telephone (53.5%) and contact with the travel agency through the agency's website (31%). Regarding the degree of easiness to use the Internet to purchase products/services, 44.4% and 19.4% of the sample studied evaluated it with 10 and 9, respectively. That means that most of them consider that there is a very high degree of easiness in using the Internet to purchase products/services.

The cluster analysis technique was applied in two situations: (i) with variables related to quality attributes to characterize homogeneous groups of users of travel agencies regarding the levels of assessment of quality attributes and (ii) with the variables related to the TAM2 model, in order to characterize homogeneous groups of travel agencies users according to the degree of evaluation of the TAM2 model.

#### **4.2. Cluster Analysis for Quality**

For the clustering process, a hierarchical cluster analysis was initially used. Quadratic Euclidean distance was used as a measure of similarity and the 'between groups method' was used as the type of clustering.

Having identified the most appropriate solutions to group the respondents, the cluster analysis technique was applied through the K-Means method.

The result of the application of this technique was the clustering of travel agencies' users in categories that indicate the quality levels required for the different aspects of the service offered by travel agencies.

Initially, an unbalanced distribution of the number of elements was obtained in 3 clusters: Cluster 1: 161 cases, cluster 2: 18 and cluster 3: 225 cases.

It was then decided to consider individuals of the smallest cluster as outliers and re-apply the cluster analysis technique through the K-Means method in order to obtain a better distribution of respondents between the groups.

Therefore, the total sample used for the application of the cluster analysis technique for the quality attributes totaled 386 respondents. The new distribution of respondents in three clusters was more balanced: cluster 1: 70 cases, cluster 2: 177 and cluster 3: 139 cases and generated groups with the following characteristics:

- ~ **Cluster 1** - The members of this group evaluated with lower grades all quality attributes and represent 18.1% of the total sample. This group was designated as: individuals disappointed with the services provided by travel operators.
- ~ **Cluster 2** – Indicate the highest grades with respect to all attributes, that is, it is the group where the most satisfied customers with the quality provided by travel agencies were. This cluster represents 43.9% of the total sample. Therefore, cluster 2 is designated as: individuals satisfied with the services provided by travel agencies.
- ~ **Cluster 3** - This cluster has intermediate grades to all attributes compared to the other two groups. This group contains 34.5% of the total sample. This cluster will be designated as: Individuals moderately satisfied.

Table 3 shows the average grades evaluated per group to the variables of quality. Note that the grades are quite favorable to travel agencies, since the lowest average was 4.6, given by the group regarding the performance in face of problems and complaints.

These high grades show that people consider the quality of the services provided by travel agencies at least regular, and the group responsible for the lowest average grades is the smallest, with only 70 respondents, while group 2, which evaluation had the highest grades for the quality of the services provided, consists of 177 people.

It was noticed that most customers are satisfied with the level of service from travel agencies.

**Table 3 – Average Grades from clusters to quality variables**

Variables related to quality attributes	Cluster		
	1	2	3
Waiting time to be served	5.4	7.6	6.6
Employees available and willing to serve	5.5	9.0	7.4
Agility in the service	5.3	8.7	7.2
Accuracy of information provided	5.2	9.1	7.3
Behavior in face of problems and complaints	4.6	8.8	6.5
Level of exclusive attention to each customer	5.0	9.0	7.1
Service delivered as promised	6.0	9.5	7.8
Employees who understand the specific needs of customers.	5.2	9.1	7.1
Courtesy by employees	6.0	9.4	7.8
Offering additional products and services	5.5	8.5	6.8
Offering the service within the deadline	6.1	9.4	7.6
No mistakes made throughout the entire service provided by the agency	5.4	9.1	7.2

SOURCE: Data collected and processed.

A relevant factor shown in Table 3 is the recognition of the service provided by the employees, as the highest grades of all groups are related to how the agency staff serves their customers.

Table 4 shows ANOVA results obtained in the technique processing for the 3 clusters. All quality variables contributed to the composition of the clusters, with special mention to variables: Level of exclusive attention to each customer and accuracy of the information provided. However, the variable that least contributed to the clustering of cases was waiting time to be served. It is worth to reinforce that the ANOVA provided in the K-Means processing can be considered only in an exploratory manner.

**Table 4 – ANOVA – K-Means to quality variables**

Quality Variables	F	Sig.
Waiting time to be served	<b>33.428</b>	0.000
Employees available and willing to serve	342.345	0.000
Agility in the service	360.759	0.000
Accuracy of information provided	<b>399.973</b>	0.000
Behavior in face of problems and complaints	313.709	0.000
Level of exclusive attention to each customer	<b>448.877</b>	0.000
Service delivered as promised	379.399	0.000
Employees who understand the specific needs of customers	395.604	0.000
Courtesy by employees	378.914	0.000
Offering additional products and services	121.341	0.000
Offering the service within the deadline	301.556	0.000
No mistakes made throughout the entire service provided by the agency	338.574	0.000

SOURCE: Data collected and processed.

#### 4.3. Cluster Analysis for the TAM2 Model

The clustering technique was also applied to the TAM2 model variables. Initially, the cluster analysis was applied through the hierarchical technique. Thereafter, the cluster analysis was applied through the *K-Means* technique.

Initially, there was a non-balanced distribution of the number of elements in 3 clusters: cluster 1: 178 cases, cluster 2: 199 and cluster 3: 27 cases.

Therefore, it was decided to consider respondents from the cluster 3 *outliers* (27 cases) and re-apply the technique of cluster analysis with 377 respondents.

The new distribution of the respondents in three clusters was better balanced: cluster 1: 113 cases, cluster 2: 108 and cluster 3: 156 cases and it generated groups with the following characteristics:

- ~ **Cluster 1** – The highest averages were given to the concept of easiness to use the Internet, and easiness to navigate on websites was the variable with the highest average. Answerers of this group account for 30% of the total sample and are less inclined to use the Internet as the exclusive channel for selecting and hiring travel services, according to

the averages of Internet adoption concept, compared to the averages obtained from the other two groups (Table 5). Cluster 1 was defined as: users with low intention to use the Internet exclusively.

- ~ **Cluster 2** – In the specific analysis of this group's grades to all variables, the social influence concept presents the highest average assessments. This group accounts for 28.6% of the sample. Cluster 2 was defined as: users with medium intention to use the Internet exclusively and strong social influence.
- ~ **Cluster 3** – This group comprises respondents that gave the highest grades for easiness to use the Internet. Compared to the other two groups, cluster 3 provided higher averages for intention of exclusive use of the Internet. Therefore, they are the respondents more inclined to use the Internet as the exclusive channel for selecting and hiring travel services. Cluster 3 was defined as: users with high intention to use the Internet exclusively.

**Table 5 – Averages of the clusters for variables of the TAM2 model**

Concept	Variables	Cluster		
		1	2	3
Social Influence	Suggestion from people who are really important to me on the decision to purchase travel services.	7.6	7.5	8.5
	Suggestion from other people on the decision to purchase travel services.	9.1	8.7	9.2
		<b>8.4</b>	<b>8.1</b>	<b>8.8</b>
Experience in using the Internet	Internet Preference.	8.4	6.9	7.9
	Intensity of using the Internet to purchase services.	6.2	5.4	6.4
	Your capacity to solve problems of navigation at shopping websites.	5.9	5.4	8.3
		<b>6.8</b>	<b>5.9</b>	<b>7.5</b>
Easiness to use the Internet	Easiness to Use the Internet	8.6	5.3	8.7
	Your easiness to navigate through websites.	9.2	7.5	9.4
	Easiness to search for information.	8.8	7.2	9.2
	Easiness to buy the package tour.	8.1	6.5	8.9
		<b>8.7</b>	<b>6.6</b>	<b>9.1</b>
Demonstrability of results and Relative advantage	Time to search the Internet for information on package tours.	7.3	6.3	8.0
	Convenience for the user to perform transactions over the Internet to purchase travel services.	7.8	7.2	8.8
	Reliability on services purchased through the Internet.	6.5	6.7	8.4
		<b>7.2</b>	<b>6.7</b>	<b>8.4</b>
Perceived Usefulness	Sufficiency of information about tourist destinations provided by the websites.	6.2	6.4	7.9
	Reliance on error-free transactions through the Internet.	6.4	6.4	8.1
	Guaranteed confidentiality of information.	6.0	6.2	7.9
		<b>6.2</b>	<b>6.3</b>	<b>7.9</b>
Adoption of the Internet – Intention to use the Internet exclusively	Adopting the online channel to purchase travel services and not looking for travel agencies.	5.5	6.6	8.8
	Recommending to friends/relatives the use of Internet to purchase travel services.	5.3	6.5	8.6
		<b>5.4</b>	<b>6.6</b>	<b>8.7</b>

SOURCE: Data collected and processed.

The situation of Cluster 1 is specific because it presents easiness to use the Internet but its use experience and the perceived usefulness are not as good as the average grades from the third group's respondents. Probably, this group has already purchased through the Internet, but was not satisfied with the results. Hence, its grade for demonstrability of results, relative advantage and perceived usefulness are also lower than the grades from cluster 3. Thus, this group presents a lower inclination (5.4) to use the Internet to purchase travel services.

Cluster 2 provided the lowest grades for the concept experience in Internet use and easiness to use, demonstrating difficulty to use the Internet and unsuccessful experiences of use. As a consequence, this group does not believe in the demonstrability of results of the Internet, in the relative advantage and in the perceived usefulness, justifying its little intention to use the Internet to purchase travel services. The only concept with an average above 8.0 for this group is social influence, indicating that although this group is not good at using the Internet, it takes into consideration the opinion of other people to purchase travel services. However, its grade for intention of use (6.6) is not very low, being in fact higher than the grade from group 1.

Cluster 3 is perceived to be the cluster that presents the highest averages for all concepts. This is the group with people that use the Internet with ease, who have better experiences using it and that already perceived their demonstrability of results and relative advantage, as well as their perceived usefulness. Thus, this is the group which is familiar with this technology and, consequently, it is the group that is willing to replace travel agencies with the new technology.

Table 6 presents results of the ANOVA that came from the technique processing for all 3 clusters. In this case, all the variables contributed for the groups' distinction. Variables such as recommend to friends/relatives the use of Internet to purchase touristic services and the reliability on services purchased through the Internet are highlighted. The variable which

provided the lowest contribution for the group classification was the recommend to friends/relatives the use of travel agencies to purchase package tours.

**Table 6 – ANOVA – *K-Means* for 3 clusters**

Variables	F	Sig.
Internet Preference.	31.828	0.000
Easiness to Use the Internet	7.890	0.000
Suggestion from people who are really important to me.	8.795	0.000
Suggestion from other people on the decision to purchase travel services.	12.517	0.000
Intensity of using the Internet to purchase services.	91.934	0.000
Your capacity to solve problems of navigation at shopping websites.	70.953	0.000
Your easiness to navigate through websites.	125.545	0.000
Easiness to search for information.	111.362	0.000
Easiness to buy the package tour.	128.982	0.000
Time to search the Internet for information on package tours.	65.827	0.000
Convenience for the user to perform transactions over the Internet to purchase travel services.	91.981	0.000
Reliability of services purchased through the Internet.	<b>129.329</b>	0.000
Sufficiency of information about touristic destinations provided by the websites.	91.620	0.000
Reliance on error-free transactions through the Internet.	110.270	0.000
Guaranteed confidentiality of information.	80.676	0.000
Adopting the <i>online</i> channel to purchase travel services and not looking for travel agencies.	127.972	0.000
Recommending to friends/relatives the use of Internet to purchase travel services.	<b>135.662</b>	0.000
Contracting the services of a travel agency.	4.936	0.008
Recommending to friends/relatives the use of travel agencies to purchase package tours.	<b>4.631</b>	0.010

SOURCE: Data collected and processed.

#### 4.4. Chi-square test for groups formed by the two cluster analyses

After applying the cluster analysis for variables of quality and for variables of the TAM2 model, it can be observed that for both cases three clusters were created. In order to verify if there is a relation between the clusters composition according to the perceived quality of travel agencies services and the TAM2 model, the chi-square test was applied. However, since the sample used in the application of the cluster analysis for variables of quality and variables of model TAM2 had to be reduced, the chi-square test was applied with a 366 respondents sample, formed by the original sample minus the groups excluded in each cluster

analysis. The chi-square test result indicated that there is a strong relationship between the clusters formed by each set of variables.

From Table 7, that shows the formation of quality clusters in comparison to the clusters of the TAM2 model, it is possible to affirm that the greater number (52.7%) of respondents who evaluated with lower grades the quality of services of travel agencies (group 1 of quality) presents easiness to use the Internet and medium inclination to adopt it as a channel to purchase travel services (group 2 of the TAM2 model). People who evaluated with medium grades the quality of services of travel agencies (group 3 of quality) are, mostly (53.9%), respondents who evaluated with medium grades the easiness of use and experience to use the Internet. Finally, the group that evaluated quality with the highest grades (group 2 of quality) is composed with a certain balance of people who evaluated with extreme grades the variables of the TAM2 model (groups 1 and 3 of the TAM2 model).

**Table 7 – Crossing between clusters of quality and of the TAM2 model**

		Quality		
		Group 1 Unsatisfied people	Group 2 Satisfied people	Group 3 Moderately satisfied people
<b>Model TAM2</b>	<b>Group 1: Low intention to use the Internet exclusively</b>	15.2%	32.3%	9.9%
	<b>Group 2: Medium intention and strong Social influence</b>	52.7%	28.4%	53.9%
	<b>Group 3: High intention to use the Internet exclusively</b>	32.1%	39.2%	36.2%
<b>Total</b>	%	100.0	100.0	100.0
	cases	112	102	152

SOURCE: Data collected and processed.

Therefore, it is not possible to set an inverse relationship between levels of satisfaction with the quality of travel agencies (*offline* channel) and levels of intention to hire travel services through the Internet (*online* channel).

## 5. Final Considerations

The problem-situation that guided this study was: is there an inverse relationship between the quality assessment in the selection and hiring process of travel services by *offline* channels (travel agencies) and the intention of migration to the *online* channel (Internet)? From this inquiry, a research was developed to identify the determining factors for the migration from the traditional channel, travel agency (*offline*) to the *online* channel (Internet) in the selection and hiring process of travel services.

The statistical technique used was cluster analysis. Through this technique it was possible to identify homogeneous groups of travel agencies users with regard to the level of satisfaction with services rendered and with respect to the predisposition to adopt the Internet as the exclusive channel to purchase travel services, according to the concepts of the TAM2 model of Venkatesh and Davis (2000).

The study pointed out that it is not possible to set an inverse relationship between quality assessment of travel agencies' services (*offline* channel) and level of intention to hire travel services through the Internet (*online* channel). Hence, results indicate that there is no direct migration from the *offline* channel to the *online* channel. Thus, tourism companies may consider the Internet to be an ally in attracting and retaining clients. In addition, all the possibilities of using technological resources from the Internet must be explored by tourism companies in order to improve the excellence standards in the provision of their services.

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