

## Papers

# Analysis of the Perception of Accommodation Consumers on the Use of Online Travel Agencies (OTAs)

## Análise da Percepção dos Consumidores de Meios de Hospedagem em Relação ao Uso das Online Travel Agencies (OTAs)

## Análisis de Percepción de los consumidores de medios de alojamiento en relación con el uso de agencias de viajes online (OTAs)

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### Abstract

#### Keywords:

Accommodation reservations.  
Consumers.  
OTAs.  
Travels.

When booking accommodation, there are several factors that influence consumers, such as previous experiences, and acquired information, which over time become increasingly sophisticated. In this way, the present study aimed to analyze consumer perception on the use of Online Travel Agencies (OTA) to book accommodation. Consumers' profile was described, as well as, use frequency of OTAs according to type of travel, comparing their perceptions of factors that influence the choices made. This research is characterized as descriptive, and exploratory with a quantitative approach. Other previous studies carried out in other countries were used to support this research, such as Law (2009) and Del Chiappa (2013). In the final data collection, 131 questionnaires were obtained with hotel guests in Natal, RN. Data analysis was performed through descriptive statistics, as well as means comparison (ANOVA) to analyze the objectives outlined in the research. Tukey test was used to verify if there were any differences between the means of the studied groups. Among the main results, it was found that most respondents (59%) are occasional consumers of OTAs, followed by moderate users (30.6%), and a small number (9.9%) are frequent OTAs users. Regarding the type of travel, it can be concluded that domestic and leisure travel are the most targeted by accommodation consumers when booking through OTAs. These results provide managers of tourism enterprises, whether traditional or online travel agencies, with useful information on users of online reservations.

### Resumo

#### Palavras-chave:

Reservas de meios de hospedagem.  
Consumidores.  
OTAs.  
Viagens.

Antes da consolidação de uma reserva de meio de hospedagem, existem diversos fatores que influenciam um consumidor, como as experiências já vivenciadas, as informações adquiridas, as quais com o passar do tempo vem se tornando cada vez mais sofisticadas. Desta maneira, o presente estudo objetivou analisar a percepção dos consumidores sobre a utilização das Online Travel Agencies (OTA) para reservar um meio de hospedagem. Para tanto se descreveu o perfil destes consumidores, verificando a frequência de uso das OTAs quanto ao tipo de viagem, como também comparando suas opiniões em relação ao tipo de viagem e os fatores que influenciam em sua escolha. Dessa forma, nesta pesquisa, caracterizada como descritiva e exploratória, com abordagem quantitativa, foram utilizados estudos anteriores realizados em outros países, tais como Law (2009) e Del Chiappa (2013). Na coleta final foram obtidos 131

questionários com hóspedes de hotéis em Natal/RN. A análise dos dados foi realizada através de estatísticas descritivas, como também comparação de médias (ANOVA) para analisar os objetivos traçados na pesquisa, e do teste Tukey para verificar se realmente existem diferenças de médias entre os grupos. Dentre os principais resultados, foi possível verificar que a maioria dos respondentes (59%) faz parte do grupo dos consumidores ocasionais de OTAs, seguidos dos moderados (30,6%) e um número pequeno (9,9%) faz parte do grupo dos consumidores frequentes. Em relação ao tipo de viagem pode-se concluir que viagens nacionais e de lazer são os tipos mais visados pelos consumidores ao efetuar reservas em OTAs. Tais resultados contribuíram para serem inferidas recomendações para gestores de empreendimentos turísticos, como agências de viagens tradicionais e online.

### Resumen

Antes de la consolidación de una reserva de medio de hospedaje, existen diversos factores que influyen a un consumidor, como las experiencias ya vivenciadas, las informaciones adquiridas, las cuales con el paso del tiempo se vienen cada vez más sofisticadas. De esta manera, el presente estudio tuvo como objetivo analizar la percepción de los consumidores sobre la utilización de las agencias de viajes en línea (OTA) para reservar un medio de hospedaje. Para ello se describió el perfil de estos consumidores, verificando la frecuencia de uso de las OTAs en cuanto al tipo de viaje, así como comparando sus opiniones en relación al tipo de viaje y los factores que influyen en su elección. De esta forma, en esta investigación, caracterizada como descriptiva y exploratoria, con abordaje cuantitativo, se utilizaron estudios anteriores realizados en otros países, tales como Law (2009) y Del Chiappa (2013). En la recolección final se obtuvieron 131 cuestionarios con huéspedes de hoteles en Natal / RN. El análisis de los datos fue realizado a través de estadísticas descriptivas, como también comparación de promedios (ANOVA) para analizar los objetivos trazados en la investigación, y del test Tukey para verificar si realmente existen diferencias de promedios entre los grupos. Entre los principales resultados, fue posible verificar que la mayoría de los encuestados (59%) forma parte del grupo de los consumidores ocasionales de OTAs, seguidos de los moderados (30,6%) y un número pequeño (9,9%) forma parte del grupo de los consumidores frecuentes. En cuanto al tipo de viaje se puede concluir que los viajes nacionales y de ocio son los tipos más visados por los consumidores al efectuar reservas en OTAs. Estos resultados contribuyeron a inferir recomendaciones para gestores de emprendimientos turísticos, como agencias de viajes tradicionales y online.

### Palavras chave:

Reservas de medios de alojamiento.  
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## 1 INTRODUCTION

The travel and tourism industry was one of the first to be affected by the Internet, with airlines offering tickets directly to consumers via web and new travel intermediaries emerging and becoming important players in the industry (Standing, Taye & Boyer, 2014). Prior to the development of the Internet and Information and Communication Technologies (ICT), tourism consumers had no choice but to choose traditional tourism intermediaries such as travel agencies and tour operators (Del Chiappa, 2013). A tourism product purchase that was once made at a traditional agency, with the help of a travel agent, can now be made directly on the Internet, more specifically, through Online Travel Agencies (OTA).

Some authors present arguments for and against the disintermediation of tourist services. For example, Buhalis (1998) points out that a purchase made on the Internet allows a greater flexibility and variety of choice for the consumer as favorable factors. On the other hand, it can be considered as negative aspects the lack of a human touch in the tourism services, the saving of time that agencies provide to customers, and the reduction of uncertainty and insecurity that they guarantee by assuming responsibility for all services.

According to a study conducted in Latin America by Phocuswright's Latin America Online Travel Overview (2016), together Mexico and Brazil represent more than 70% of online travel markets. The population is becoming more technologically experienced, leading to a positive effect on online bookings. Also, it is expected that online travel penetration will grow on average 10% in the coming years. This scenario shows how much OTAs market has been growing in Brazil, due to the ease that consumers have in buying on the internet.

It is important to highlight that research on travel agencies in Brazil, specifically about OTAs, is still incipient, while in other countries well-developed studies have already been carried out. Research conducted by Sarquis, Pizzinatto, Giuliani and Pontes (2015) reveals that there is a lack of studies on travel/tourism agencies, especially focused on marketing and customer relationship strategies.

A survey conducted in Italy by Del Chiappa (2013) found that there are significant differences between occasional online shoppers (who have purchased once or twice), moderate (three to four times) and frequent (more than four times) based on age, education, income, and experience with online travel shopping and likelihood of being influenced by user-generated content (UGC) on the Internet in their final choices. According to Ramos, Mendes Filho and Lobianco (2017: 285), “UGC constitutes data, information or forms of communication produced on the Internet by the general public, not by professionals.”

Thus, this study is believed to make a significant contribution both to the academia and tourism companies, since it presents a literature review of research developed in different countries and compares it with the results of field research conducted in Natal, Brazil. For this purpose, the present work intends to answer the following research question: What is the perception of consumers on the use of Online Travel Agencies (OTA) to book accommodation? In this perspective, the research aims to describe the profile of consumers using OTAs, the OTAs use frequency, as well as comparing the perception of OTA consumers according to type of travel and factors influencing their accommodation booking.

## 2 LITERATURE REVIEW

### 2.1 INTERNET AS A DISTRIBUTION CHANNEL

The tourism industry has been experiencing dramatic changes after the advent of the Internet. According to Tavares and Neves (2011), perhaps few sectors of the economy have been so affected by the impact of information technology as tourism. In fact, practically all actors in this activity have been affected or will be affected by a greater amount of information available and by the new processes used. According to a survey conducted by the marketing agency *We Are Social* (Social and Mobile, 2015), Brazil is ranked third in the world in time spent on the Internet. In this way, tourism products and services that were previously marketed only through traditional distribution channels—travel and tourism agencies, for example—are now also marketed by Internet platforms, thus leading to disintermediation in these services.

Marsilio and Vianna (2013) point out that until the emergence of the Internet the distribution of travel services was carried out by travel and tourism agencies and tour operators. Being the agencies supported by computer reservation systems, Global Distribution System (GDS), and tour operators by information materials, videos, among others. However, currently a digital revolution is underway and evolving fast, a moment marked by extremely rapid transformations on ICTs, with the Internet being one of the components (Sant'Anna & Jardim, 2007).

In Tavares and Neves's (2011) point of view, the use of the Internet seems to be contributing to the reduction or even elimination of intermediary channels, whose primary function is to match supply and demand in tourism services. According to the authors, when taking advantage of this technology, tour operators, airlines, hotel chains, and car rental companies seem to have “shortened the distance” to the final consumer causing a reduction in travel agencies and, consequently, a decrease in the amounts transferred as commissions and the number of customers served.

In this context, the Internet is a powerful instrument for market competition, providing an opportunity for consumers to benefit from a wider choice of products, services, and prices, leading them to acquire new methods of buying desired products (Abranja & Marques, 2014). Law, Qi and Buhalis (2010) assert that the Internet is a valuable tool for suppliers and consumers of information dissemination, communication, and online purchase. The rapid growth in the number of online users and the increase of online transaction fees clearly shows technology popularity. From the same point of view, Longhini and Borges (2005) state that new technologies affect consumers and all agents involved in the tourism process, using new labor instruments that increase productivity, and allow better performance at reduced costs.

This process of reinvention becomes necessary each passing day. According to Flores et al. (2012), ICTs offer a range of tools to facilitate and improve the process of researching destination/consumer product and post-experience information, becoming part of the marketing and communication strategies of tourism agencies. It is understood that the Internet, as one of the ICT tools available to the market, allows to reach new customers, as well as new market segments, more economically, highlighting the amount of information provides, and the possibility that this tool offers its users to decide alone which products to consume (Borges & Guardia, 2012).

## 2.2 ONLINE TRAVEL AGENCIES (OTA)

Lago and Cancellier (2005) stated that the travel agencies sector underwent major transformations in Brazil. In the mid-1990s, with the emergence of Internet, suppliers started to rely on this distribution channel, which does not require payment of commissions and allows to offer the product to virtually everyone, no matter of their location.

To Flores, Cavalcante and Raye (2012), the transformation processes that took place over the years, such as the advent of the Internet, the development of ICTs, among others, have always influenced tourism activity and its entire production chain, in which are included the travel and tourism agencies, private companies that have been and still are directly affected by the changes in the sector, mainly coming from ICT. This force travel and tourism agencies to rethink their structure, form of organization, and operation to stay in the market. Thus, ICTs have influenced the way in which numerous organizations operate, including the tourism sector, more precisely travel agencies (Borges & Guardia, 2012).

Also, Flores et al. (2012) infer that the development of information and communication technology has contributed to the characterization of a new phase in travel and tourism agencies. They are no longer sought as exclusive distributors of travel services. Meanwhile, Flecha and Costa (2004) argue that it is already late for agencies that do not offer online reservations, ticket sales, and personalized information to consumers, leaving them with the option of joining agencies that already do so.

Parras and Claro (2008) state that virtual companies are a new way of organizing business activities, where different and independent “partners” explore a business opportunity through the establishment of cooperation. In agreement with this idea, Pereira and Maia (2002) state that electronic commerce and information technologies allow the formation and management of dynamic cooperation among different partners in a global dimension, overcoming the limits of time and space between partner companies or between the company and customers, broadening the scope of the virtual organization.

According to Silveira (2015), it is very frequent to read or hear professionals within agencies raising some issues, such as: We are losing market; The internet is closing travel agencies; The customer buys everything on its own; how to survive suppliers that are our competitors? Questions such these corroborate that market is undergoing great changes, at a speed that many have not yet realized, and others cannot reach, which makes tourism intermediation market in Brazil, and in the world, to question and, mainly, to reinvent themselves (Silveira, 2015).

The tourism sector is experiencing great paradoxes. While some authors proclaim the end of intermediaries, it is possible to see large companies being built on this activity, such as the OTAs (Lago & Cancellier, 2005). It should be noted that OTAs, according to Salvador, Ferreira and Costa (2012) apud Pazini and Abrahão (2014) are companies that invest heavily in technology, because they rely exclusively on their website for online marketing of their products, since they do not deal with the public face-to-face. In this new model, these companies are focused on reaching many consumers, at any day and time, and without geographical limits. They can make the entire product portfolio available to the customer, and easily make price updates (Salvador, Ferreira & Costa, 2012).

In this sense, OTAs function as agencies that provide travel-related products/services as well as information that can assist in planning them. It is possible for physical travel agencies to have more personalized information by gathering and organizing information unique to their customers' travel needs. However, to successfully replace these traditional agencies, OTAs will have to strive providing improved sites that are more human, simple, secure, and offering more personalized service (Kim, Kim & Han, 2007).

According to Kim et al. (2007), the only problem with OTAs is the lack of reservation flexibility. When making a reservation in a traditional travel agency, people can request information (e.g. name and date) be changed with the travel agent taking responsibility for it. While in OTAs it is the customer who will perform the procedure, often without success. Consequently, the criterion that often determines the choice by an OTA is a low tariff, and not service quality.

However, in the online market, many hotels are focusing on increasing their market share by establishing cooperation with OTAs. Meanwhile, hotel and OTAs websites are marketing the hotel at the same price, as a result of strong competition for the same group of customers (Ling, Guo & Yang, 2014). This shows how much accomplishment of this cooperation is important for a hotel to be able to leverage its sales, by the fact that non-cooperation carries a great risk for hotels in losing a great participation in online market in times of increasing e-commerce sales.

### 2.3 DIFFERENT TYPES OF TOURIST CONSUMERS

At the beginning of this discussion, it is important to emphasize that tourist consumers are diverse. Costa, Peres Jr, Prado and Silva (2010) comment that several factors can determine the motivations of tourists such as personality, lifestyle, past experiences (both as tourist and in their daily life), and self-image. Also, it is important to note that hardly a tourist will be motivated by just one factor. In this way, when choosing a product or service consumers are influenced by internal and external factors.

There are also differences among online consumers of tourism, and there are several reasons that lead them to buy on internet, such as familiarity with technology, ease, and convenience, among other factors. In this context, Thomaz, Biz and Gandara (2013) indicate that this new scenario has triggered several changes in consumer behavior and new segments of tourism and tourists have emerged. According to Candioto (2012), these new customers are more demanding as they have more information. Consumer-tourists possess a wide array of information and tools (search websites, hotels, airlines) that bring them closer to suppliers without the need for intermediaries.

Due to the changes the tourist market is undergoing, a large part of tourist consumers prefers to buy online. Following this line of reasoning, one can attest that there are significant differences between these consumers. According to Monzó et al. (2015), most tourism consumers booking services online are likely to be selective and technologically literate, which means that such consumers become experienced in online shopping, which makes them safe and motivated to buy on the internet.

Morrison, Jing, O'Leary, and Cai (2001) argue that viewers differ from consumers who make reservations, in various sociodemographic characteristics and Internet consumption (number of years using the internet, number of hours spent online every week, etc.). As Gronflaten (2011) points out, younger groups are more likely to search for information on the Internet, as older people prefer human contact with a travel agent.

In a study by Law (2009), it is shown that there are three distinct groups of online consumers: Frequent users, who book more than four times per year; Moderate users, who book three to four times; and Occasional users, who book once or twice per year. The author also says that frequent shoppers are more positive about hotel bookings than moderate and occasional ones, and with the growing popularity of Internet applications, more people are expected to use online environment to shop. As such, more people can, and are likely to switch from viewers to occasional and moderate buyers and eventually become frequent buyers.

The increasing ease of use of technology in tourism market encourages consumers to lose fear of shopping online and becoming frequent online consumers. In this way, in the view of Razak et al. (2014), understanding customer expectations and meeting them is a viable strategy to gain repeat visits. Companies should always respond to customer needs and enable staff to incorporate some surprises in service provision to make the service consumption a memorable experience. Consequently, consumers of online shopping rely heavily on the quality of experience, which can only be obtained through a previous purchase (Razak, Marimuthu, Omar & Mamat, 2014).

### 3 METHOD

To achieve the research objectives, exploratory research of descriptive nature was used. According to Rodrigues (2007), exploratory study aims to provide greater familiarity with the problem. Thus, the study intends to expand possible discoveries on the topic of OTAs in Brazil, more specifically online consumers perception about these companies, whose studies are still in an incipient stage.

It also has a descriptive character. In the view of Rodrigues (2006), descriptive research aims to observe, register, classify, and interpret, making use of standard techniques of data collection, such as questionnaires and systematic observation, thus showing the interrelationships among factors that influence the formation and development of the research and contribute to reach the objectives.

The present study has as preponderant characteristic, the quantitative approach, since its objective is to quantify results and show the relationships between them, having as target population the consumers over 18 years who have already booked accommodation using OTAs. It was used a purposely, non-probability sample, with the intention of contemplating at least 130 respondents, due to the selected analysis technique.

According to Dencker (2000), before the administration of the questionnaire, a pre-test must be conducted to assess any problems in the writing of questions, imprecisions, exhaustion, among others. From this perspective, the pilot test evaluated the data collection process and had the purpose of adjusting the questions and verifying their relationship with the research objectives. Twenty questionnaires were used with visitors from Centro de Lançamentos da Barreira do Inferno (CLBI), in Parnamirim, RN, which is a base of the Brazilian Air Force, where Cultural and Tourist Information Center (CCEIT) is located, focusing on tourists who are on their way to the Potiguar coast. The questionnaires were applied from 26 October to 2 November 2016. It was verified that the data collection instrument achieved the proposed research objective, with only minor changes required to the questionnaire, which was important to improve the instrument for the final data collection.

Therefore, the final questionnaire was adapted and designed considering previous literature, specifically the research carried out by Law (2009) and Del Chiappa (2013), which investigated the perception of different online consumer groups of hotels with different online shopping experiences. Data collection took place from December 2016 to March 2017 (during high season), so hotels had high occupancy rates, which facilitates the approach. Structured questionnaires were applied to guests staying in two three-star hotels, located in Ponta Negra neighborhood, in Natal, RN. The choice for three-star hotels was due to the ease of access of the researcher, since the most luxurious hotels are located in places of difficult access in the city. A total of 131 questionnaires were collected from the guests. In one of the hotels the approach was made by a receptionist, who was trained to administer the questionnaires. In the other hotel, the researcher herself administered the questionnaires to the guests, after authorization from the management.

The processing of the results of the questionnaires was performed by SPSS version 19 for Windows. These results were analyzed by (1) descriptive statistics, with the purpose of characterizing the respondents profile, and later performing a separation of users and non-users of OTAs, analyzing the frequency of OTA use per year to book accommodation as well as the change of reservation based on UGC on internet by the users; (2) descriptive statistics to verify the frequency of OTA consumers use to book accommodation as to travel type; and (3) descriptive statistics and mean comparison test to compare consumers opinion of OTAs as to travel type and factors that influence their accommodation booking choices. Figure 1 summarizes and presents the detailed methodological steps for a better understanding.

Figure 1 - Methodological Framework

Central objective	Intermediate Objectives	Analysis variables		Data Collection	Data Analysis
Consumers perception analysis of the use of OTAs to book accommodation	a) To describe the profile of consumers that book accommodation through OTAs	OTA user; Frequency of use; Reserve change based on UGC; Gender; Age Group; Education; Monthly family income.		Questionnaire based on Law (2009) and Del Chiappa (2013)	Descriptive Statistics
	b) To verify the frequency of use of OTAs to book accommodations as to the type of travel	Business; Recreation; Events; National; International; Short term; Medium and long duration.			Descriptive Statistics
	c) To compare OTAs consumers opinion on the type of travel and factors that influence their choice to book accommodation	Business; Recreation; Events; National; International; Short term; Medium and long duration.	Reservations for convenience; Diversity of searches; Flexibility; Benefits; Professional advice; Insecurity; Humanized service; Convenience by looking for an agent; Commissions.		Descriptive Statistics / Means Comparison (ANOVA) / Tukey Test

Source: The authors (2018)

## 4 DATA ANALYSIS

### 4.1 Profile of respondents

It was possible to identify in Table 1 that in relation to respondents' profile, there is a bit more males than females, and mostly consumers are considered adults, aged between 25 to 34 years, and with some experience with online purchases (35-44 years). They are characterized by a high level of education and high income.

In this way, it can be inferred that although information technology reaches the world, facilitating access to the Internet and making consumers more independent, online shopping is still a "privilege" of certain socio-economic categories that can obtain information and use them for the improvement of their activities, whether daily activities or even planning and shopping for tourist services.

Another aspect concerns the consumer groups encountered during research. It was found that most respondents belong to the occasional user group, followed by moderates, and a small number are part of frequent consumer group. To the detriment of this, it is possible to corroborate that in relation to the surveyed sample, the OTAs users still have a culture of few trips a year. As discussed in the previous section, this information may be tied to the moments of crisis that Brazil is facing, so the priorities of these consumers become other.

Most consumers of OTAs have never made use of UGC to change hotel reservations. Although a large part of the sample is from occasional consumers, who do not have so much experience with online shopping, they still do not use this feature to assist them in their bookings. This finding is different when compared to previous surveys conducted in other countries, which show that occasional consumers change their reservation more frequently than moderate and frequent consumers, relating this aspect to the experience that this consumer has (Del Chiappa, 2013).

**Table 1** - Profile of respondents (continue)

OTAs Users	Frequency	Percentage %
Yes	111	84.7%
No	20	15.3%
<b>Frequency of OTA use</b>	<b>Frequency</b>	<b>Percentage %</b>
1 to 2 times	66	59.5%
3 to 4 times	34	30.6%
5 times or more	11	9.9%
<b>Reserve changed based on UGC</b>	<b>Frequency</b>	<b>Percentage %</b>
Never	37	33.3%
Almost never	27	24.3%
Sometimes	29	26.1%
Often	13	11.7%
Ever	5	4.5%
<b>Gender</b>	<b>Frequency</b>	<b>Percentage %</b>
Female	54	48.6%
Male	57	51.4%
<b>Age Group</b>	<b>Frequency</b>	<b>Percentage %</b>
18 - 24	5	4.5%
25 - 34	35	31.5%
35 - 44	41	36.9%
45 - 54	13	11.7%
55 - 64	13	11.7%
65 or over	4	3.6%
<b>Education</b>	<b>Frequency</b>	<b>Percentage %</b>
Elementary School Incomplete	1	0.9%
Complete primary education	1	0.9%
Complete high school	12	10.8%

**Table 1** - Profile of respondents (conclusion)

OTAs Users	Frequency	Percentage %
Incomplete Higher Education	10	9.0%
Complete Higher Education	47	42.3%
Incomplete Postgraduate	11	9.9%
Complete Postgraduate	29	26.1%
Monthly Family Income	Frequency	Percentage %
R\$880.00 to R\$1,759.00	3	2.7%
R\$1,760.00 to R\$2,639.00	6	5.4%
R\$2,640.00 to R\$3,519.00	8	7.2%
R\$3,520.00 to R\$4,399.00	8	7.2%
R\$4,400.00 to R\$5,279.00	17	15.3%
R\$5,280.00 to R\$6,159.00	15	13.5%
R\$6,160.00 or more	54	48.6%

Source: Research data (2017)

#### 4.2 Frequency of OTA use by type of travel

To analyze what the present topic proposes, a description of the means was made for each type of trip, also analyzing how the data behaved in relation to asymmetry and kurtosis. Asymmetry is the property that indicates the trend of greater concentration of the data in relation to the central point. Kurtosis is the characteristic that refers to the degree of flattening in relation to the distribution curve (Hair, Anderson, Tatham & Black, 2005). Thus, the asymmetry and kurtosis values are within the optimal range to characterize the distribution of the variable as being normal (asymmetry  $< |3|$  and kurtosis  $< |10|$ , described in Table 2).

Continuing the research results, it was found that the choice to make a reservation in an OTA differs according to type of travel that consumer will carry out (Table 2). The survey data show that when it comes to domestic travel and leisure, consumers are more likely to use an OTA (mean = 4.30 and 4.29/according to the scale proposed in the questionnaire). This is probably confirmed by the fact that it is easier to obtain knowledge of the destination when it is located in the same country, and also a trip of this size does not carry many risks compared to an international trip.

A survey conducted by Beldona et al. (2005) shows that when there is high risk (medium and long-term travel, unknown destinations, etc.), consumers use the Internet only to search and exchange information, but not use it to buy something online. When it comes to travel with less risk (short trips), consumers are more likely to book through the Internet. However, in the present study a significant number (mean = 3.87) was found for the type of medium and long-term travel, followed by short-term travel (mean = 3.68). This suggests that the search for an OTA to make travel bookings with such duration is not considered low. This can be proven by the fact that it would not be exactly the length of stay, but rather the nature of the trip that determines whether the user will make a reservation in an OTA or not.

When someone is thinking of taking a trip to another country, although it is now easier to access information through Internet, there is still a language barrier, which many people do not completely master, which often makes it difficult for the consumer to make reservations on their own, thus seeking the assistance of specialized professionals. This is confirmed by the mean found in the survey, which was only 2.69 for international travels.

When asked about event and business travel, a small number of respondents (means of 2.05 and 2.03, respectively) said they use OTAs to make reservations for these types of trip. In relation to event travel, such information can be confirmed by the fact that consumers themselves make the reservations, if these events are regional or national. In relation to business travel, there are in most cases partnerships between companies and physical travel agencies, which carry out the procedures without requiring the final consumer to spend time to research prices and conditions.

**Table 2** - Frequency of use of OTA by type of travel

Types of Travel	Mean	SD	Asymmetry		Kurtosis	
			Statistics	EP	Statistics	EP
Domestic travel	4.30	0.890	-1.255	0.229	1.251	0.455
Leisure travel	4.29	0.731	-0.509	0.229	-0.975	0.455
Medium and long-term travel	3.87	1.137	-0.843	0.229	-0.036	0.455
Short travel	3.68	1.080	-0.598	0.229	0.050	0.455
International travel	2.69	1.500	0.260	0.229	-1.344	0.455
Event travel	2.05	1.086	0.672	0.229	-0.516	0.455
Business travel	2.03	1.194	1.153	0.229	0.546	0.455

Source: Research data (2017) SD - Standard deviation; EP - Standard error

### 4.3 Users' opinion of OTAs by type of travel and factors that influence the booking process option

To compare OTAs users opinion, the analysis was divided into two steps. Initially, the analysis of means comparison was performed through Analysis of Variance (ANOVA) in relation to the type of travel, in order to compare the means of the different groups of consumers. In the case where the existence of means difference was verified, the Tukey test was performed to identify where means differences between groups occurred, similar to the procedures used by Law (2009) and Del Chiappa (2013).

In order to perform means comparison test (ANOVA), three groups of consumers were defined: occasional, moderate, and frequent. The groups were defined from the variable "frequency of use", identifying the group to which the consumer belonged. Answers "one to two times" were classified as occasional group; "three to four times" as moderates; and "five times or more" as frequent.

Soon after the division of the groups, their respective means, statistic F values and level of significance were analyzed. According to Hair et al. (2005), this is a statistical test of the differences between two or more groups, and that usually small values such as 0.05 or 0.01 are specified to minimize the possibility of a type I error.

The data found in the research reveal that significant differences (sig < 0.05 as criterion) were found in the variables "business trips", "event travel" and "short trips" (as detailed in Table 3). When the consumer is frequent, the mean for OTAs use for "business travel" is the highest with 3.91, followed by 2.03 for moderates, and only 1.71 for occasional. It should be noted that the difference is quite considerable, evidencing that there is a tendency that as consumers use more OTAs to book accommodation, they use it for several types of trips, including business trips. However, in relation to "business trip", there is a tendency to say that: frequent > moderate > occasional.

Regarding "event travel", the data show that for occasional consumers, the mean is 1.73, lower than moderate (2.48) and frequent (3.0). Thus, even if it is a timid mean, it is noticed that there is a tendency of the greater the frequency of use of OTA consumer, the greater the use for reservations of accommodation for event travel. Therefore, for the variable "event travel" there is a tendency to state that: frequent > moderate > occasional. Then, the same sequence of business trip results (analyzed in the previous paragraph) was obtained. When it comes to short-term trips, a significant difference of means, even if small, was observed. Short trip: frequent (4.55) > moderate (3.94) > occasional (3.39).

Regarding the other types of travel: leisure, domestic, international, and medium and long term, no significant differences (sig > 0.05) were found among groups. This information can be attested by the fact that consumers of these types of trips tend to use OTAs even though they are not frequent consumers. As a result, the data show that for frequent consumers, they use OTAs for all types of travel, even on those that on average were less frequently mentioned.

**Table 3** - Comparison of means by type of travel

Variables	Occasional Consumers N = 66		Moderate Consumers N = 34		Frequent Consumers N = 11		F	Sig
	Mean	SD	Mean	SD	Mean	SD		
<b>Business travel</b>	1.71	0.890	2.03	1.114	3.91	1.375	22.058	<0.0001
<b>Leisure travel</b>	4.23	0.760	4.26	0.710	4.73	0.467	2.283	0.107
<b>Event travel</b>	1.73	0.969	2.48	1.015	3.0	1.183	10.172	<0.0001
<b>Domestic travel</b>	4.23	0.891	4.32	0.976	4.64	0.505	1.017	0.365
<b>International travel</b>	2.62	1.517	2.65	1.495	3.27	1.424	0.911	0.405
<b>Short travel (up to 4 days)</b>	3.39	1.149	3.94	0.814	4.55	0.688	7.668	0.001
<b>Medium and long-term travel (from 5 days)</b>	3.80	1.166	4.0	1.073	3.91	1.221	0.338	0.714

Source: Research data (2017). SD: Standard deviation

Continuing with the analysis, a Tukey test was performed to identify where there are significant differences between the means of the groups in relation to the “business”, “events” and “short duration” types of travel. Table 4 shows that there is a difference of means between occasional and moderate consumers in relation to the frequent users. It is verified that there are no significant differences of means between occasional and moderate consumers.

**Table 4** - Tukey Test - Business Travel

Frequency of Use	N	1	2
Occasional	66	1.71	
Moderate	34	2.03	
Frequent	11		3.91
Sig.		0.554	1.000

Source: Research data (2017)

Regarding the type of travel “events”, Table 5 shows that there is a significant difference of means between occasional and frequent consumers. It is also verified that there is not have a difference of means between occasional and moderate consumers, as well as between moderate and frequent.

**Table 5** - Tukey Test - Event Travel

Frequency of Use	N	1	2
Occasional	66	1.73	
Moderate	34	2.38	2.38
Frequent	11		3.00
Sig.		0.081	0.107

Source: Research data (2017)

What corresponds to the type of “short travel”, the same result of the previous variable is shown in Table 6, that is, the means of occasional and frequent groups have significant differences. In relation to the means of moderate consumers, this is equal both in occasional and frequent users.

**Table 6** - Tukey test - Short travel

Frequency of Use	N	1	2
Occasional	66	3.39	
Moderate	34	3.94	3.94
Frequent	11		4.55
Sig.		0.179	0.124

Source: Research data (2017)

In the second stage of this analysis, descriptive statistics were carried out in order to verify the general means regarding the factors that influence the choice of accommodation booking, and later the analysis of means comparison was performed, using analysis of variance (ANOVA), maintaining group division criteria used in the previous analysis. From the point of view of consumers regarding the use of OTAs and travel agencies, participants were presented with a list of nine statements that addressed factors that influence the choice for an OTA and a traditional travel agency. From the data presented in Table 7, it is verified that respondents neither agree nor disagree that the consumers must accept the commissions paid to the travel agents included in the price of the reservation. Thus, this would not be a factor that influences the choice by an OTA (mean of 2.77).

Also, a small mean of 2.91 is impartial when considering that it is more convenient to seek the advice of travel agents to book accommodation than to make it directly in OTAs. These facts are consistent with Del Chiappa's (2013) research, which indicate that more independent consumers, with online reservation experience end up choosing an OTA, often driven by price—which usually is lower when compared to reservations made in traditional agencies—without the need for professional help.

On the other hand, consumers believe that OTAs allow them to make reservations according to their convenience (mean = 4.47). As well as a mean of 4.43, consumers say that OTAs do not restrict the number of searches, allowing consumers to perform multiple searches for accommodations. In addition, most consumers (mean = 4.43) agree that OTAs are much more flexible in offering more accommodations options than travel agents. In this way, it can be inferred that these factors influence the choice for OTA to make accommodation booking.

**Table 7** - Factors influencing OTA and traditional travel agency choice

Variable	Mean	SD	Asymmetry		Kurtosis	
			Statistic	SD	Statistic	SD
Booking for convenience	4.47	0.672	-1.257	0.229	1.841	0.455
Diversity of searches	4.43	0.770	-1.654	0.229	3.632	0.455
Flexibility	4.43	0.696	-0.991	0.229	0.389	0.455
Benefits	3.32	1.027	-0.053	0.229	-0.660	0.455
Professional advice	3.31	0.980	-0.002	0.229	-0.376	0.455
Insecurity	3.22	1.030	0.009	0.229	-0.597	0.455
Humanized service	2.98	1.095	-0.006	0.229	-0.684	0.455
Convenience by looking for an agent	2.91	1.203	0.144	0.229	-0.853	0.455
Commissions	2.77	1.226	0.291	0.229	-0.872	0.455

Source: Research data (2017). SD - Standard Deviation

Regarding the comparison of means of factors that influence consumers in their choice to book accommodation, the data revealed that only the statement “travel agents are professionals who offer valuable advice as to booking accommodation” had significant difference of means ( $\text{sig} < 0,05$ ) between groups (Table 8). The difference between groups of consumers was: frequent (4.00) > occasional (3.26) > moderate (3.18). It is noted that in this case the group of occasional consumers obtained a higher mean than the group of moderate consumers. Such information can be confirmed by the fact that users with less online shopping experience tend to consider that professional advice, such as travel agents, can somehow benefit them when making reservations. Regarding frequent consumers, it is understood that they already have some experience and can plan the itineraries of trips by themselves.

As for the other variables, it was observed that there were no significant differences between the means of the groups ( $\text{sig} > 0.05$ ), i.e., the agreement with the variables was same among the groups.

**Table 8** - Comparison of means of factors influencing the choice for an OTA

Variables	Occasional Consumers N = 66		Moderate Consumers N = 34		Frequent Consumers N = 11		F	Sig
	Mean	SD	Mean	SD	Mean	SD		
Traditional travel agencies offer a more human service by providing accommodation options to consumers.	2.92	1.100	3.12	1.008	2.91	1.375	0.373	0.690
OTAs allow consumers to perform various searches for accommodations.	4.42	0.745	4.44	0.660	4.45	1.214	0.010	0.990
Online travel agencies allow consumers to make reservations at their convenience.	4.42	0.681	4.41	0.701	4.91	0.302	2.712	0.071
Travel agents are professionals who offer valuable advice as to booking accommodation.	3.26	0.982	3.18	0.904	4.00	1.000	3.267	0.042
Consumers lately must accept the commissions paid to the travel agents included in the booking amount.	2.80	1.166	2.50	1.331	3.45	1.036	2.638	0.076
Travel agents generally indicate to consumers accommodation options where agents will get more benefits.	3.29	1.064	3.29	0.970	3.55	1.036	0.303	0.739
Travel agents can reduce consumer booking accommodation insecurity because they are responsible for the whole process.	3.32	0.995	2.91	0.996	3.55	1.214	2.430	0.093
OTAs are much more flexible in offering more accommodation options than travel agents.	4.48	0.638	4.29	0.719	4.55	0.934	1.004	0.370
It is more convenient to seek the advice of travel agents to book accommodations than to perform directly in OTAs.	2.79	1.259	3.26	1.024	2.55	1.214	2.383	0.097

**Source:** Research data (2017)

Finally, when the Tukey test was performed, it was verified (Table 9) that the means of the moderate and occasional groups were equal, and that there was a significant difference between the means of these two groups and the group of frequent users.

**Table 9** - Tukey Test – Professional Advice

Frequency of Use	N	1	2
Occasional	34	3.18	
Moderate	66	3.26	
Frequent	11		4.00
Sig.		0.957	1.000

Source: Research data (2017)

## 5 CONCLUSIONS

In order to develop effective work in tourism companies, it is necessary to know the opinion of consumers about their services. Considering that the travel agency sector is constantly changing, because of the easy access of consumers to information technology, these companies must focus on service quality.

Considering that customer satisfaction is a key aspect to leverage sales and to keep companies at a high level of competitiveness, the present work intended to answer the following problem question: What is the consumers' perception of the use of Online Travel Agencies (OTA) to book an accommodation?

Thus, it was possible to identify through consumer groups (occasional, moderate, frequent) with different types of online experience, that their opinions are different in relation to some aspects, such as type of travel and factors that influence booking accommodation using OTAs.

When comparing the results of this work on consumers' perception of the use of OTAs to book accommodation with the related works by Law (2009) and Del Chiappa (2013) similar results were found. Although the contexts are distinct, because these studies were developed in China and Italy, respectively, most of the variables were proven through such studies. A difference was observed in the gender variable; in this study, although the difference was small, it was found that men were more frequent as online consumers, whereas in the cited authors, women were predominant as respondents. Another difference between the studies was in relation to the information that most respondents are occasional consumers, but it was verified that 33.3% never changed a reservation based on UGC, whereas in previous researches it was found that occasional consumers change their reservation more often because they have no experience with online shopping.

As limitations of the research, data collection was performed with only three-star hotels in Natal, RN, and 131 questionnaires were collected with guests. It is suggested that future surveys on this topic be performed with hotels of other sizes and profiles, in addition to a larger number of respondents and conducted on other Brazilian cities and states for comparison purposes.

From the results, several recommendations could be made for the industry and academia with proposals for future research. On the one hand, there is a more in-depth academic view on OTAs debate, revealing that consumer opinion changes according to the group they belong to. From another perspective, these results offer suggestions and recommendations for both hotel and travel agency managers.

As for hotel managers and OTAs, they should not focus solely on direct sales, but should also be concerned about brand reputation, which is projected in UGC on the Internet, as highlighted throughout the paper. Regarding traditional travel agencies, the conclusions obtained also suggest that an online presence should be created and maintained in order to survive and recover the competitiveness of the sector, since Internet use by young consumers is increasing. Soon, in the very near future, even older consumers will book accommodation through online platforms.

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