Perception of using group buying sites to acquire tourism services coupons

Perceção do uso de sites de compras coletivas ao adquirir cupons de serviços turísticos

Percepción de la utilización de los sitios de compras colectivas para adquirir cupones de servicios turísticos

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Abstract: Technologies brought new forms of business as is the case of group buying sites, which are basically a way to sell on the internet that allows consumers to buy goods and services at lower prices. This study analyzed the travelers’ perception of the use of group buying sites to acquire tourism services coupons. The research presents a quantitative-exploratory approach using the Technology Acceptance Model to investigate the use of group buying sites to acquire tourism services coupons during a trip. Sixty valid questionnaires were collected from students of a public university in northeastern Brazil. It was used survey data collection, with a non-probabilistic convenience sample. Since this is a pilot study with a small sample, the results were tested by structural equation modelling (SEM), using partial least squares (PLS) analysis. The results show that most people who responded to the questionnaires are using group buying sites to acquire tourism services coupons. However, according to the results, the group buying sites may not be an easy tool to help the decision making process when purchasing tourism services.

Keywords: Group Buying Sites. Technology Acceptance Model. Tourists Services.

Resumo: As tecnologias trouxeram novas formas de negócio como foi o caso dos sites de compras coletivas, que são basicamente uma forma de vender na Internet que permite aos consumidores comprar produtos e serviços a preços mais baixos. O presente trabalho analisou a percepção do viajante sobre o uso de sites de compras coletivas para adquirir cupons de serviços turísticos. A pesquisa apresenta caráter quantitativo – exploratório com a utilização do Modelo de Aceitação Tecnológica, para servir de base teórica para verificar a utilização dos sites de compras coletivas para adquirir cupons de serviços turísticos durante uma viagem. Foram coletados 60 questionários válidos com estudantes de uma universidade pública federal do nordeste brasileiro. Utilizou-se um levantamento de dados do tipo survey, com uma amostra não-probabilística por conveniência. Por se tratar de um estudo piloto com uma amostra pequena, os resultados foram verificados através da Modelagem de Equações Estruturais (MEE), utilizando a técnica Partial Least Squares (PLS). A partir da análise, verificou-se que a maioria das pessoas que responderam aos questionários utilizam sites de compras coletivas ao adquirir cupons de serviços turísticos durante uma viagem. No entanto, de acordo com os resultados, os sites de compras coletivas não parecem ser uma ferramenta fácil para auxiliar o processo de tomada de decisão quando compram serviços turísticos.

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The particular characteristics of the tourism product, such as intangibility of the experience, require new tools for bringing travelers and the tourism industry closer. In this way, the relationship marketing needs to go beyond persuasion and engage consumers, generating benefits both for them and for tourism players, and fostering the loyalty of tourist-consumer.

In face of this, technologies such as e-commerce become more important for tourism companies searching for competitive advantages (Oneto, et. al, 2015). Communicating through technology may lead to greater interactivity with customers (Reincke & Cajaraville, 2000), allowing for a more tangible experience regarding the researched destination (Carvalho et al., 2016).

One of the ways of doing business on the internet has been popularized by group buying websites, a type of e-commerce originating in the United States of America (U.S.A.) in 2008 which appeared in Brazil two years later. Global estimates show that the group-buying market reached in 2015 US$ 4 billion (Liang et al., 2014). The overview for the Brazilian market are similar, because the volume of sales of group buying sites grew substantially in 2012, reaching R$ 1.6 billion, representing an 8 percent growth compared to the previous year (E-BIT, 2013). In relation to tourism, digital business represented the main source of online group buying in 2013, amounting to over R$ 194.6 million in the “Travel & Accommodation” (E-BIT, 2013). These results are due to the highest value of market in terms of average ticket, R$ 349.25 (E-BIT, 2013). Despite the increasing demands of users of group buying sites and the resulting drop in sales through that platform (SPC BRASIL, 2015), the market has evolved and is undergoing a process of consolidation (e-commerce.org, 2015).
In relation to the use of group buying sites in tourism we have, for example, the selling of accommodation packages, particularly by hotels trying to boost low season occupancy or to promote the company in the market. The food service sector uses buying group strategies to attract new consumers, increasing the turn-over and income, through revenue management (HEO, 2016).

Research in Brazil about group buying in tourism is still relatively little explored in the literature, and it is an overlooked topic in tourism publications, particularly regarding tourism services coupons (Sena Júnior, 2014). Based in this information the question of the current study is: What is the perception about the use of group buying sites to get tourism services coupons?

In this perspective, the present paper aims to analyze the perception of travelers about the use of group buying sites during a trip. This research is of a quantitative-exploratory nature and adopts the Technology Acceptance Model as the theoretical framework, proposed by Davis in 1989. Sixty valid questionnaires were collected from public university students, in north-eastern Brazil. Data was collected through a survey, with a non-probabilistic convenience sample. The results were tested by structural equation modelling (SEM), using partial least squares (PLS) analysis.

2 LITERATURE REVIEW

2.1 Internet and Tourism

The use of the internet brought new business opportunities for companies and organizations, increasing sales and improving processes and strategies.

According to Cooper et al. (2001, p.461):

The internet offers incomparable opportunities for multimedia presentations, it can transform simple texts of the global distribution systems into interactive leaflets. This is particularly significant when the global distribution systems aim to distribute less standardized products, such as hotel rooms and destination facilities.

Online shopping is growing worldwide, particularly due to its convenience. The customer of the twenty-first century looks for new ways of doing old things, and buying on the internet is easy, people just have to access online shopping sites. According to Guimarães and Borges (2008, p.61), the e-commerce “is any type of commercial transaction conducted electronically, with intense use of information and communication technologies”, i.e. any commercial activity taking place on the internet is considered electronic commerce. In line with this, below in the figure we can see that the e-commerce is growing in Brazil, amounting to R$ 18.6 billion:
The internet is particularly adequate for the tourism product, given its singularities and opportunities listed here below:

**Figure 2 – Tourism opportunities on the internet**

| Globalization of business                                                                 | ➢ Tourism establishment can reach the international market at low cost. |
|                                                                                           | ➢ Information available around the clock, reducing the inconvenience caused by time zones differences. |
|                                                                                           | ➢ Possibility of site content translation into various languages, reaching potential clients in different countries. |
| More value for clients                                                                     | ➢ Special offer for website users. |
|                                                                                           | ➢ Promotions for frequent visits. |
|                                                                                           | ➢ Partnerships with local service providers (táxis, restaurants, guides, etc.). |
|                                                                                           | ➢ Better relationship with the customers. |
|                                                                                           | ➢ Additional information on events, culture, and local attractions. |
|                                                                                           | ➢ Loyalty programs, previously only possible for larger companies, through customized marketing. |
| Distribution                                                                               | ➢ Internet partnerships through hyperlinks. |
|                                                                                           | ➢ Wider participation on the internet of companies without fixed costs or high-cost technologies. |
|                                                                                           | ➢ Links with small travel organizations around the world. |
| Compromise with technology                                                                 | ➢ Technology incorporation in the business everyday life and website development. |
|                                                                                           | ➢ Monitoring of technological innovation, aiming to assist experienced travelers, especially young people. |

**Source:** Guimarães and Borges (2008, p. 60)

Looking at the figure above, it becomes clear that the business strategies have to adapt given the permanent changes in the market and the emergence of new needs. This results, mainly, from the acceleration brought by the information technologies. Therefore, the internet has become an important tool for entrepreneurs and clients. However, the companies which fall behind the demands of the market, namely in terms of service quality, face major difficulties.
Besides companies, the client has become a major player in what concerns competitiveness, following Guimarães and Borges (2008, p. 16), “the power of negotiation of the client is stronger in case of buyer concentration versus industry concentration”. Hence, the reason why companies must adapt to the market changes. On the internet clients can find several service providers for the same product, choosing whichever suits their needs best.

The expansion of the use of internet in tourism concurred with the appearance of a new type of client/tourist who, before traveling, searches for information and takes a virtual tour of the place.

The tourist needs more information before a trip in order to plan the activities, and that has given rise to a more empowered traveler, someone who collects all the information needed and buys tourism services without leaving home. For example, the TripAdvisor website provides pre-trip information to travelers (research for accommodation) and also post-trip, enabling travelers to compare tourism experiences (Mendes Filho, Tan & Mills, 2012). In this way, internet as become the major source of information for travelers planning a trip (Mendes Filho, 2014).

The quality of the contents on websites is very important to make travelers trust on the online material. The higher the risk perception, especially before a purchase, the more the consumer search for information (Buhalis, 1994).

The heterogeneity and intangibility of the tourism product makes it impossible for customers to test before the purchase, therefore the companies must provide detailed and precise information on their websites.

2.2 Group Buying Sites

The new technologies brought different ways of doing business, e.g. group buying sites which have become a key marketing tool for many companies. Within the hospitality sector the e-commerce is a showcase for attracting different market niches and new business opportunities for companies investing in that technology. Ferreira and Andrade (2012, p.2), consider that “the major internet phenomenon in terms of marketing is group buying”.

Contrary to what is believed, group buying is not a new concept. Throughout history consumers have joined to negotiate discounts on a given amount of purchased goods (Zhang et. al, 2016). However, this author points out that “multi-vendor online platforms aimed at individuals willing to bargain have become more popular in the last decade” (Zhang, et. al, 2016, p.69).

According to Narayanasamy (2011), group buying sites have the following features: a) urgency: giving the buyers a sense of “urgency” due to time restraints to purchase the coupons; b) exclusivity: offering the buyers a sense of exclusivity with limited quantities of coupons on offer; c) Social Sharing: the likeliness that users will share with others in their network and influence them.
Sales and Souza (2011, p.3), consider “online group buying a system in which the vendors announce great discounts on their products to entice consumers”. The offer is published online in a group buying site for a fixed period and, if during that time the pre-established minimum number of buyers is reached, every buyer gets a discount coupon.

As for Zhang et al., (2016), the group buying sites are a way of selling which widen consumer’s buying power, by offering lower prices. Originating from the idea of “consumers’ co-operative” movement (Thompson, 2011), group buying re-emerged due to e-commerce and online networks (Zhang, et. al, 2016).

In general, group buying sites focus on price reduction; the sites negotiate discount deals with the companies based on higher volume of business. That is the strategy to attract new consumers. The potential clients become customers enticed by the opportunity of a good deal. This way companies have a new marketing tool, placing many products in the marketplace and attracting more consumers.

Group buying is growing, particularly due to its convenience. Ferreira and Andrade (2012, p.3) consider that there is a marketing directed to e-commerce, known as digital marketing, because it can be considered as such the “activities using the internet to promote a continuous dialogue with customers”. Using computers, smartphones or tablets consumers have access to the products on the internet promoted via digital marketing.

In tourism, travel offers are divided into two categories: those selling accommodation in the low season (except high season and holidays), with a longer period of validity; and last minute offers, with specific expiry date. Prices below the market value are possible given to these cooperation networks established through agreements between hotels, airlines, travel agencies, and other stakeholders.

However, a new process of disintermediation and re-intermediation in the tourism chain of production is emerging, giving rise to a reconfiguration of the competitive arena in that industry. This is happening because the group buying websites are selling to a niche usually neglected by travel agencies and tour operators: people who buy low season packages.

The result could not have been different: faced with the threat of an even greater loss of market share, some of the companies had to establish partnerships with these sites to offer tour packages (Maia, 2011). Furthermore, it has brought other changes to the distribution chain of tourism, e.g. consumer-tourist satisfaction. Because of rapid growth, these new environments face various problems, from service quality standards to difficulties in booking a service. These problems can go unnoticed, making the new business model deviate from its original purpose (Oscar, 2011).

The large number of clients at one time raises the question of whether this mode of purchasing is able to meet client satisfaction regarding comfort and quality of service. A quality product is something that exceeds customers’ expectations and boosts repeat purchases. According to Araújo (2011), many customers complain that they feel prejudice on the part of the establishments when they present coupons bought on websites. The
same author adds that suppliers are criticized because they fall short of meeting the demand for coupons, i.e. they oversell (ARAÚJO, 2011). In addition, according to Sá (2011), there are problems of discrimination on the part of the partners that use these sites to advertise products and services.

Also, there are complaints regarding double charges and difficulties in scheduling or cancelling a purchase. The providers attract the customer to their establishment with a profit margin below average, hoping that they will repeat the experience, paying the standard prices (Benazzi & Pedra, 2011).

Maia (2011) refers that within the tourism industry there are similar issues. According to the author, the difficulty in booking accommodation dates is one of the most frequent complaints. He also points out that, often, customers cannot book their stay because the hotel oversold coupons, exceeding the carrying capacity, including acting in bad faith by offering overvalued rates to mask the actual discount price.

As a consequence, the new stage of group buying has limited the entry of new competitors, which caused changes and mergers of companies operating in that market segment in order to strengthen and continue leading the market (E-commerce.org, 2015).

3 TECHNOLOGY ACCEPTANCE MODEL AND HYPOTHESES

The analysis of the use of group buying sites to get tourism services coupons was done through the Technology Acceptance Model (TAM). The TAM was put forward by Davis (1989), and since then it is used to verify the acceptance of new information technologies in various contexts.

The model of Technology Acceptance was designed to identify the individual’s level of acceptance of a new technology, according to external variables. The arrows in the model (Figure 3) represent the relationships between variables.

According to Davis (1989) this model was developed to identify the actual use of new technologies, the ease of use, the perception of usefulness of the technology studied, and to analyse the individual’s attitudes and usage intentions.

The TAM has four variables: attitude, perceived usefulness, ease of use, and behavioral intention. The concept of these variables are shown below for a better understanding of TAM (Davis, 1989):
- **Attitude:** the degree of evaluative affect, positive or negative, that an individual associates with using a given system of behavior;

- **Perceived usefulness:** the degree to which a person believes that using a particular system would enhance his or her job performance;

- **Ease of use:** is when a technology is perceived as easy to use, requiring a minimum effort;

- **Behavioral intention:** can be understood as the measure of likelihood of a person adopting a given behavior.

Based on research by Ayeh, Au and Law (2013), Huh, Kim and Law (2009), Mendes Filho and Carvalho (2014), and Silva and Mendes Filho (2014), the following hypotheses were put forward:

- **H1** – Travelers’ attitude towards using group buying sites for tourism influences their intention of using them to buy tourism services coupons;

- **H2** – The ease of use of group buying sites influences, positively, the travelers’ attitude towards buying tourism services coupons;

- **H3** – The ease of use of group buying sites for travel services influences, positively, the travelers’ attitude towards buying tourism services coupons;

- **H4** – The usefulness of group buying sites for travel services influences, positively, the travelers’ attitude towards buying tourism services coupons;

- **H5** – The ease of use of group buying sites for travel services influences, positively, the perceived usefulness of using group buying sites to get tourism services coupons.

### 4 METHODOLOGY

In order to meet the objectives of this research, exploratory research with a quantitative approach was adopted. According to Dencker (1998, p.124), exploratory research “aims the refinement of ideas or the unfolding of intuitions through flexible planning”. It is a type of research whose main feature is studying new topics (e.g. the case of the group buying sites), through review studies, using books, articles on online magazines, and websites about the subject, contributing to build the theoretical framework.

The research uses a quantitative approach, as Fonseca (2002, p.20) posits:

> The quantitative research is focused on objectivity. Influenced by positivism, it considers that reality only can be understood based on the analysis of raw data, collected using standardized and neutral tools. The quantitative research uses the mathematical language to describe the causes of a phenomenon, the relationships between variables, etc.

Regarding the technical procedure, field research was conducted to identify the travelers’ perception on the use of group buying sites. Data collection was carried out with students of a public university of northeastern Brazil, using non-probability convenience sample. According to the website of Hotel Urbano (2011), the vast majority of its users are...
in the range of 25 to 34 years, hence the sample used for this study consist of a people within this range.

Questionnaires were applied randomly in all sectors of class during May 2014. Data was collected through survey. Sixty questionnaire were considered valid for analysis. According to Hair et al. (2006) and Malhotra (2006), the use of multivariate analysis requires a minimum sample of 50 respondents.

The perspective adopted to comply with data collection was the use of group buying sites to acquire coupons of tourism services during a trip and the intention to use them in future trips. Thus, the sample of the survey was composed of people who already use group buying sites while traveling.

Data were collected by means of a structured questionnaire (Malhotra, 2006). The questionnaire was composed of 23 closed-end questions, 10 of which about the profile of the respondents, and about the use of group buying sites to get tourism services coupons. The other 13 questions were related to the variables of the Technology Acceptance Model. These were seven-point Likert scales responses (Malhotra, 2006) measuring the level of agreement/disagreement wherein: 1 - strongly disagree; 2 - disagree; 3 – partially disagree; 4 - neutral; 5 - partially agree; 6- agree; and 7 - totally agree.

The model of research is based on the Technology Acceptance Model and uses a sample of 60 respondents. This is a pilot study with a small sample using structural equation modelling (SEM) and partial least squares (PLS) technique to analyse the results.

The choice of partial least squares (PLS) technique, rather than other techniques of SEM, as for example, LISREL and AMOS, was due to the size of the sample, just 60 respondents. According to Chin (1998), you can use partial least squares (PLS) for sample analysis with the acceptable size of 10 cases per indicator of the latent variable that has the largest number of indicators. For this study, the largest latent variable had four indicators, which totaled 40 respondents when multiplied by 10. The sample size in this research is 60 respondents, which is enough for PLS-Graph 3.0 software analysis.

5 DATA ANALYSIS

5.1 Profile of the respondents

Table 1 depicts socio-demographic characteristics of the respondents. The majority are female, half of them are aged between 18 to 25 years, 42 percent are between 26 to 34 years and 8 percent of respondents are between 35 and 49 years. With relation to the level of education the majority of the respondents (65 percent) are graduating from university, while 29 percent of people have completed a university degree, lastly, 2 percent of respondents have completed secondary education or possess postgraduate education.

Regarding the experience with the internet, 48 percent of the respondents have been using it for 8 to 10 years, 25 percent for 5 to 7 years, 20 percent for 11 or more years
and 5 percent for 2 to 4 years, and 2 percent started using internet less than a 1 year ago, which shows that the majority of respondents have already a good amount of experience with the internet.

Table 1 – Profile of the respondents

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>17</td>
<td>28%</td>
</tr>
<tr>
<td>Female</td>
<td>43</td>
<td>72%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 – 25</td>
<td>30</td>
<td>50%</td>
</tr>
<tr>
<td>26 - 34</td>
<td>25</td>
<td>42%</td>
</tr>
<tr>
<td>35 - 49</td>
<td>5</td>
<td>8%</td>
</tr>
<tr>
<td>50 - 64</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>&gt; 64</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incomplete Primary Education</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Primary Education</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Incomplete Secondary Education</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Complete Secondary Education</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td>Incomplete Tertiary Education</td>
<td>39</td>
<td>65%</td>
</tr>
<tr>
<td>Complete Tertiary Education</td>
<td>17</td>
<td>29%</td>
</tr>
<tr>
<td>Postgraduate</td>
<td>2</td>
<td>3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Internet experience</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1 year</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>2 to 4 years</td>
<td>3</td>
<td>5%</td>
</tr>
<tr>
<td>5 to 7 years</td>
<td>15</td>
<td>25%</td>
</tr>
<tr>
<td>8 to 10 years</td>
<td>29</td>
<td>48%</td>
</tr>
<tr>
<td>&gt; 11 years</td>
<td>12</td>
<td>20%</td>
</tr>
</tbody>
</table>

Source: Research data (2014)

Table 2 shows the average use of group buying sites to obtain tourism services coupons while traveling. Results indicate that 65 percent of respondents spend half to one hour in group buying sites, 20 percent stated that they spend less than half an hour, 13 percent spend one to two hours and 2 percent spend two to three hours on those sites.
Table 2 – Average use of Group Buying Sites

<table>
<thead>
<tr>
<th>On average, how much time do you spend using group buying sites to get tourism services coupons on a trip?</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1/2 hour</td>
<td>12</td>
<td>20%</td>
</tr>
<tr>
<td>½ hour to 1 hour</td>
<td>39</td>
<td>65%</td>
</tr>
<tr>
<td>1 - 2 hours</td>
<td>8</td>
<td>13%</td>
</tr>
<tr>
<td>2 - 3 hours</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>3 - 4 hours</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>4 - 5 hours</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>&gt; 5 hours</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

Source: Research data (2014)

From the group buying sites used to acquire tourism services coupons (Table 3), Peixe Urbano, with more than 63 percent, Natal Urbano with 57 percent, Hotel Urbano, and GroupOn with 43 percent stand out. The other sites were little used to buy tourism services coupons.

Table 3 – Group Buying Sites used to obtain tourism services coupons

<table>
<thead>
<tr>
<th>Which group buying sites have you used to buy tourism services coupons?</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peixe Urbano</td>
<td>38</td>
<td>63%</td>
</tr>
<tr>
<td>Natal Urbano</td>
<td>34</td>
<td>57%</td>
</tr>
<tr>
<td>Hotel Urbano</td>
<td>30</td>
<td>50%</td>
</tr>
<tr>
<td>GroupOn</td>
<td>26</td>
<td>43%</td>
</tr>
<tr>
<td>ClickOn</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Regateio</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Batazzo Promoções</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

Source: Research data (2014)

5.2 Evaluation of the Measurement Model

The verification of the research was done through partial least squares (PLS) technique. The PLS-Graph version 3.0, was used aiming to assess the measurement model (Tables 4 and 5), and the structural model of data field collection (Figure 4). The measurement model examined the load factors and t-statistic (Table 4) of each indicator (usefulness, ease of use, attitude, and intention), besides the convergent validity and reliability of variables (Table 5).

Chin (2010) explains that the load factors need to be above 0.7 to be considered good results. Regarding t-statistic, values should be around 5 percent to be significant. Table 5 shows that all variables have a load factor above 0.7, and the minimum load was 0.74 to a maximum of 0.96. Regarding statistical data, the variables indicators were significant at a level of 5 percent, given that the values varied between 8.57 and 66.71.
Table 4 – Load factors and t-statistic

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>Load</th>
<th>T-statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usefulness</td>
<td>UT1</td>
<td>0.88</td>
<td>21.56</td>
</tr>
<tr>
<td></td>
<td>UT2</td>
<td>0.89</td>
<td>19.78</td>
</tr>
<tr>
<td></td>
<td>UT3</td>
<td>0.86</td>
<td>19.37</td>
</tr>
<tr>
<td></td>
<td>UT4</td>
<td>0.74</td>
<td>9.50</td>
</tr>
<tr>
<td>Ease of Use</td>
<td>FAC1</td>
<td>0.96</td>
<td>12.48</td>
</tr>
<tr>
<td></td>
<td>FAC2</td>
<td>0.95</td>
<td>9.63</td>
</tr>
<tr>
<td></td>
<td>FAC3</td>
<td>0.92</td>
<td>8.57</td>
</tr>
<tr>
<td>Attitude</td>
<td>AT1</td>
<td>0.93</td>
<td>36.48</td>
</tr>
<tr>
<td></td>
<td>AT2</td>
<td>0.89</td>
<td>21.50</td>
</tr>
<tr>
<td></td>
<td>AT3</td>
<td>0.93</td>
<td>66.71</td>
</tr>
<tr>
<td>Intention</td>
<td>IN1</td>
<td>0.92</td>
<td>51.08</td>
</tr>
<tr>
<td></td>
<td>IN2</td>
<td>0.92</td>
<td>25.23</td>
</tr>
<tr>
<td></td>
<td>IN3</td>
<td>0.83</td>
<td>10.61</td>
</tr>
</tbody>
</table>

Source: Research data (2014)

The structural model and the hypotheses are evaluated through PLS, using the values of R2 (variances) and significant paths. Figure 4 depicts the validation of the structural model and the five hypotheses tested by PLS. Path variable, load factors of each variable (significant for p < 0.001, p < 0.005, p < 0.05), and also R2 value are shown in Figure 4.

PLS analysis confirmed four hypotheses (H1, H2, H4, and H5), and hypothesis H3 was negatively confirmed. Paths between variables should be statistically significant so as to validate the structural model and the proposed hypotheses.

Table 5 – Convergent Validity and Reliability

<table>
<thead>
<tr>
<th>Variables</th>
<th>Average Variance Extracted</th>
<th>Composite Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usefulness</td>
<td>0.72</td>
<td>0.91</td>
</tr>
<tr>
<td>Ease of use</td>
<td>0.89</td>
<td>0.96</td>
</tr>
<tr>
<td>Attitude</td>
<td>0.84</td>
<td>0.94</td>
</tr>
<tr>
<td>Intention</td>
<td>0.80</td>
<td>0.92</td>
</tr>
</tbody>
</table>

Source: Research data (2014)

5.3 Evaluation of the Structural Model

The structural model and the hypotheses are evaluated through PLS, using the values of R2 (variances) and significant paths. Figure 4 depicts the validation of the structural model and the five hypotheses tested by PLS. Path variable, load factors of each variable (significant for p < 0.001, p < 0.005, p < 0.05), and also R2 value are shown in Figure 4.

PLS analysis confirmed four hypotheses (H1, H2, H4, and H5), and hypothesis H3 was negatively confirmed. Paths between variables should be statistically significant so as to validate the structural model and the proposed hypotheses.
The structural model shown is Figure 4 highlighted a significant value of the variable attitude to buy tourism services in group buying sites during a trip ($R^2 = 62.6$ percent). According to Cohen et al. (2003, p.413 – 414), 26 percent of the variance is already considered high for behavioral sciences. Also the variable usefulness for intention explain approximately 35.6 percent of the variance of attitude. Finally, the variable ease of use explains 54.4 percent of the variance of usefulness.

The variable attitude had a statistically significant positive path for behavioral intention (score $= 0.47$, $t = 4.9$, $p < 0.001$), confirming the hypothesis. In this way, the hypothesis 1 was confirmed, i.e. the traveler’s attitude to use tourism group buying sites to get tourism services coupons positively influences their intention of using them during a trip. Therefore, in line with Mendes Filho and Carvalho (2014), the attitude has a positive impact on behavioral intention.

The variable utility had a statistically significant positive path to attitude (score $= 0.85$, $t = 6.5$, $p < 0.001$), confirming the hypothesis 2, which states that the usefulness of using tourism group buying sites positively influences the attitude of buying tourism products when planning a trip. In this way, this result confirms the study conducted by Huh, Kim and Law (2009), which refers that usefulness has a positive impact on the attitude.

On the other hand, the variable ease of use had a statistically significant negative path towards attitude (score $=-0.46$, $t = 3.12$, $p < 0.005$), failing to confirm the hypothesis 3. Which demonstrates that group buying sites are a tool difficult to use to purchase coupons. Thus, the result did not corroborate Ayeh, Au, and Law’s (2013) research, where there was a positive impact of the ease of use in relation to attitude.

The variable usefulness had a statistically significant positive path for intention (score $= 0.48$, $t = 4.3$ $p < 0.001$), confirming the hypothesis 4, which states that the usefulness of the group buying sites influences positively the traveler’s intention of buying tourism services coupons. Therefore, this result is in line with Silva and Mendes Filho’s (2014) study, where there was a positive effect of usefulness on the intention of use.

Finally, the ease of use had a statistically significant positive path for usefulness (score $= 0.73$, $t = 12.3$ $p < 0.001$), confirming the hypothesis 5, which says that the ease of use of the group buying sites influences the perception of usefulness of purchasing tourism services coupons. Confirming once again Ayeh, Au and Law’s (2013) research, in which the ease of use influenced positively the perceived usefulness of technology.
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Figure 4 – Structural Model

Usefulness

R²: 54.4%

- UT 1: 0.88***
- UT 2: 0.90***
- UT 3: 0.86***
- UT 4: 0.74***

Attitude

R²: 35.6%

- FAC 1: 0.96***
- FAC 2: 0.95***
- FAC 3: 0.92***

Ease of Use

R²: 62.6%

- AT 1: 0.93***
- AT 2: 0.89***
- AT 3: 0.93***

Intention of use

R²: 62.6%

- IN 1: 0.92***
- IN 2: 0.83***
- IN 3: 0.92***

Source: Field research (2014)
6 CONCLUSIONS

Collective buying has caused changes in the production chain of tourism, and especially in the discontent on the part of the new tourist consumer (OSCAR, 2011). According to Macário (2011), because of their rapid growth, these sites have faced various problems, especially quality standards issues, which may go unnoticed and end up diverting the model from its original purpose.

One of the aspects influencing the perception of use of group buying sites, especially in tourism, is the quality of services. According to Shiau and Luo (2012), the consumer satisfaction regarding these sites is affected mostly by trust, followed by reciprocity from other consumers (social rewards). Therefore, if the quality of the service purchased through coupons is poor, tourists most likely will not repeat it.

Because of this, the market logic of the segment of travel within the major industry players, such as Peixe Urbano and Groupon, has changed (E-COMMERCE.ORG, 2015). In both cases, the companies continue to make use of strategies like impulse buying, e.g. "amount of people who have already bought the coupon" and "time limit to acquire the offer", however they have abandoned the requirement of a minimum number of buyers to activate the offer.

Hence, group buying industry, particularly regarding tourism services, is undergoing consolidation. The recent reports of SPC concur with this, indicating that travel comes in third place on the most requested services (SPC BRASIL, 2015).

This study adds to the tourism literature, insofar as it contributes to the understanding of the travelers’ perception on the use of group buying sites to acquire tourism services coupons. We used the Technology Acceptance Model and its four variables (usefulness, ease of use, attitude and intention), and five hypotheses have been proposed. Structural equation modeling and PLS analysis confirmed four hypotheses put to test (H1, H2, H4 and H5); H3 was not confirmed. The findings suggest that travelers use group buying sites for its usefulness, which can influence the attitude and intention of travelers in purchasing tourism services coupons.

There are few studies on this topic in Brazil. Therefore it would be interesting to conduct further research on the subject, carrying out qualitative studies with the companies which use group buying sites as a marketing tool in order to assess the actual implications of those websites for tourism companies.

The main limitation of this work was the size sample, with only sixty valid questionnaires. This is a pilot study carried out with young college students, thus the results do not necessarily represent the profile of those using tourism services coupons bought in group buying sites. Therefore it is suggested that further research should be conducted using larger samples and including various ages and regions of the country.
REFERENCES


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