Cruise tourists’ perception of a port of call: differences between Internet versus other information sources used

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Abstract
The rapidly growing cruise tourism industry calls for a further understanding of cruise passenger’s behaviour, not only on board of the ship, but also onshore. Given the limited time cruise tourists spend at ports of call, destination knowledge acquired through different information sources prior to the visit becomes an important factor influencing cruise passengers’ perception, though an unexplored one in the cruise tourism context. The present study attempts to fill this void by examining the moderating role of type of information sources used in the causal relationships between destination image-satisfaction-behavioural intentions. The results of the study, based on data from one of the main Spanish cruise ports showed that (1) the impact of destination image on cruise tourist’s satisfaction is higher when the visitor has previously consulted online information sources and (2) satisfaction played a more important role in leading to behavioural intentions for those, who have used information sources other than the Internet. Thus, the manuscript brings a number of managerial implications which can help tourism destination marketing organizations in their decisions regarding the cruise tourism segment.

Keywords
Cruise tourism, information sources, cruise port, PLS
1. Introduction

Cruise tourism demand has been growing rapidly over the last years (CLIA Europe, 2015), which has resulted in hospitality researchers showing an increased interest in the area. However, far too little has attention been paid to the investigation of the experience of cruise tourists at ports of call (Andriotis & Agiomirgianakis, 2010; De Cantis et al., 2016), with the major part of the studies focusing on cruise trips as a tourism product (Hung & Petrick, 2011; Zhang et al., 2015). Moreover, ports of call prove to be the main reasons why travellers choose a particular cruise trip (Henthorne, 2000), thus highlighting the relevance of researching about cruise passengers’ experience onshore, as pointed out by previous studies in the field (Parola et al., 2014; Xie et al., 2012). While some research has been carried out on cruise tourist satisfaction with the destination (Andriotis & Agiomirgianakis, 2010), word of mouth intention (Satta et al., 2015) spending pattern (Henthorne, 2000) and socio-cultural and environmental impacts of cruise visitors at port of call (Brida & Zapata, 2009) no controlled studies have been reported on the effect of different types of information sources consulted prior to visiting the port of call.

2. Literature review

One of the main stages of the travel planning process is the information search prior to visiting a destination: an essential phase in the case of cruise holidays, considered a complex tourism product due to its heterogeneity (an amalgam of accommodation, transport and sightseeing in a number of destinations) (Adukaite et al., 2013; Beldona et al., 2005). The use of information sources in the tourism context fulfil several functions: to reduce to risk involved in the decision, to create an image of the destinations and to provide a justification for the choice in a later point of time (Mansfeld, 1992). Previous researchers have classified the different information sources used by tourists prior to their visit to the destination in various categories: primary and secondary (Beerli & Martin, 2004), personal and impersonal (Collado et al., 2007), internal and external (Sharifpour et al., 2013), induced, organic or autonomous (Suárez, 2012), among others. More recent studies such as those published by Xiang et al. (2015) and Llodrà-Riera et al. (2015) move beyond the traditional information sources (advertising, travel agents, travel guides, etc.) comparing them to the use of online information. Moreover, contrasting the effect of online versus offline information on the formation of destination image was proposed previously as a future research line by Li et al. (2009). Several authors confirm that Internet exhibits some differences in comparison with other information sources (Frías et al., 2012), arguing that the destination image created by online sources is more complete due to the existence of a variety of webpages, types of UGC and social media (Liang et al., 2009; Lim et al., 2012).

The type of information source consulted along with tourists’ personal traits has been demonstrated to explain the formation of cognitive images of the travel destination (Llodrà-Riera et al., 2015). Moreover, provided that cruise tourists spend limited time at ports of call (an average of 5 hours (Henthorne, 2000)), their perceived image of the destination visited is often incomplete. In that sense, the type and content of information consulted prior to visiting the port of call can be essential to obtaining a more complete image of the destination. Destination image, in turn, has an impact on satisfaction and behavioural intentions regarding the destination (Chi & Qu, 2008; Prayag, 2009). The sequence image-satisfaction-behavioural intentions have been investigated by numerous studies, producing varying results (Assaker & Hallak, 2013; Brunner et al., 2008; Chi
It has been demonstrated that a good destination image does not always imply greater satisfaction and does not automatically lead to greater future behavioural intention. Nor does higher satisfaction lead to greater behavioural intentions.

Moreover, the literature review indicates that the intensity of the relationships between image, satisfaction, and future behavioural intention can vary according to situational characteristics (Jin et al., 2015; Rodríguez Molina et al., 2013; San Martín et al., 2013) and personal characteristics (Matzler et al., 2008; Prayag, 2012). With respect to the situational characteristics, several studies have shown that previous knowledge about a destination, acquired via past travel experience, moderates the relations between (1) image and satisfaction (Chi, 2012), (2) satisfaction and behavioural intention (Brunner et al., 2008; Faullant et al., 2008; San Martín et al., 2013), and (3) image and behavioural intention (Brunner et al., 2008; Kim et al., 2012). The importance of destination's cognitive attributes in destination image formation can also vary depending on the knowledge about the destination, acquired via past visit (Beerli and Martín, 2004; Rodríguez Molina et al., 2013). Chi (2012) reported that the influence of image on satisfaction increases as a result of more experience. The study of San Martín et al. (2013) showed that satisfaction has a greater impact on tourist loyalty in the case of first-time visitors versus repeaters. Faullant et al. (2008) demonstrated that perceived image – loyalty relationship is moderated by previous experience, so that the more often tourists visit the destination, the greater the influence of image on loyalty is.

Also, it should be emphasized that knowledge about a destination is not acquired exclusively by a previous visit, but also by means of secondary sources such as information available on the Internet, travel guides, recommendations from friends, etc. (Beerli & Martín, 2004; Sharifpour et al., 2013). Notwithstanding, a search of the literature revealed that the moderating effects of the type of information consulted on the relationships between image, satisfaction, and future behavioural intention have not been examined. Since knowledge acquired by past travel experience moderates the causal relationships among the aforementioned constructs, it is plausible to assume that the knowledge obtained via different types of information sources will also have a moderating role on them. Hence, we propose the following hypotheses:

**H1.** Type of information sources used has some moderating effects on the relationship between destination image and satisfaction.

**H2.** Type of information sources used has some moderating effects on the relationship between destination satisfaction and future behavioural intentions.

**H3.** Type of information sources used has some moderating effects on the relationship between destination image and future behavioural intentions.

The proposed theoretical model and hypothesis have been illustrated by Figure 1.
3. Research methodology

A questionnaire survey was carried out in the present study; the target population comprised cruise passengers who disembarked at the city of Valencia as a port of call, between April and July 2013. Valencia was chosen as a port of call because it is a Spanish Mediterranean city that ranks second on international tourism non-capital destination rankings. Moreover, in 2014 Spain was in second position receiving European cruise passengers visits (CLIA Europe, 2015).

The questionnaire was designed based on the reviewed literature and it was pre-tested with cruise passengers.

3.1. Sampling

We selected cruise passengers after they had finished their visit to the city of Valencia and were waiting at the departure lobby in order to embark. We chose cruise ships of different sizes and companies (Xie et al., 2012) to ensure sample variability.

The final sample included of 492 valid respondents, of which 54.8% were males and 45.2% females. Regarding the age, the sample was composed of the following age groups: up to 35 (29.7%), 35-54 (37%); over 55 (33.3%). More than half of the cruise tourists interviewed (63.85%) come from four countries, namely Germany (19.92%), United Kingdom (17.1%), Italy (14.63%) and USA (12.2%). In terms of age and nationality, the sample accurately represents the current profile of cruise passengers in the city of Valencia, since data collected by Valencia Tourism Board (2012) confirm that most cruise passengers come from Germany, United Kingdom, Italy and USA and are aged 35 to 54 years.

3.2. Variables and measures

The measurement scales were adopted from the literature and each of their items was rated on 5-point Likert scale (1 being “strongly disagree” and 5 being “strongly agree”). Destination image was calculated by a multi-attribute approach for measuring the overall image, since most studies have followed this approximation. We measured cognitive aspects of destination by 15 items extracted from Sanz and Carvajal (2014). In the suggested model for this research, image has been conceived as a first order multidimensional reflective construct and as a second-order formative one.
The satisfaction scale was derived from the studies of Oliver (1980), Flavián et al. (2006) and Janda et al. (2002) and was composed by three items.

The individual’s future behavioural intentions in terms of revisit intention and willingness to recommend it to were captured by three items following Zeithaml et al. (1996) and Cater and Zabkar (2009).

3.3. Data analysis

We used descriptive statistics and PLS structural equation modelling. PLS simultaneously evaluates both the measurement model and the structural model. We decided to use this technique for the following reasons: (1) PLS is appropriate for analysing models where both formative and reflective indicators measure the constructs (Diamantopoulos & Winklhofer, 2001); (2) compared to covariance-based SEM, PLS presents many advantages in estimating interaction effects (Chin et al., 2003). In our PLS analysis, we used the Smart-PLS version 2.0 M3 software (Ringle et al., 2008).

The moderating effects of information sources used was analysed through a multi-group comparison approach (Henseler & Fassott, 2010). The responses were classified into two groups: (1) tourists who used Internet sources and (2) tourists who consulted sources other than Internet (Xiang et al., 2015). Using PLS, we estimated the path coefficients for each group (Sarstedt et al., 2011). Finally, we analysed the differences between path coefficients. Significant coefficients were interpreted as having moderating effects. To determine the significance of the differences between the estimated parameters for each group, we applied Henseler’s nonparametric approach (Henseler et al., 2009).

4. Results

4.1. Structural equation modelling results

All the variables of the proposed theoretical model meet the requirements for item and construct reliability, as well as convergent and divergent validity (Roldán & Sánchez-Franco, 2012). The results from the measurement model evaluation are represented in Table 1.

Once the measuring instrument has been validated, the inner structural model has been assessed and the results are shown on Table 2. In order to generate standard errors and t-statistic values, bootstrapping procedure (5000 re-samples) was used following Hair et al. (2011). In this way, the statistical significance of the path coefficients was estimated. Regarding $R^2$ values, they resulted to be greater than the recommended threshold of 0.10 (Falk & Miller, 1992). Besides, the results of the cross-validated redundancy measures demonstrated the predictive relevance of the suggested theoretical model with $Q^2$ values being higher than 0.
Table 1. Measurement model evaluation

<table>
<thead>
<tr>
<th>Construct/Dimension/Indicator</th>
<th>VIF</th>
<th>Weight</th>
<th>Loading</th>
<th>t-value</th>
<th>Composite reliability</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Image (second-order factor)</strong></td>
<td>1.426</td>
<td>0.235</td>
<td>n.a</td>
<td>n.a</td>
<td>0.903</td>
<td>0.703</td>
</tr>
<tr>
<td>Resources touristic (Restou)</td>
<td>0.984</td>
<td>0.072</td>
<td>0.7410</td>
<td>24.88</td>
<td>0.915</td>
<td>0.840</td>
</tr>
<tr>
<td>Tourist information is wide and adequate.</td>
<td>0.898</td>
<td>0.235</td>
<td>0.760</td>
<td>24.35</td>
<td>0.903</td>
<td>0.703</td>
</tr>
<tr>
<td>Tourist signs are appropriate.</td>
<td>0.860</td>
<td>0.235</td>
<td>0.734</td>
<td>25.51</td>
<td>0.903</td>
<td>0.703</td>
</tr>
<tr>
<td>Cruise tourist services provided are enough.</td>
<td>0.887</td>
<td>0.235</td>
<td>0.735</td>
<td>25.58</td>
<td>0.903</td>
<td>0.703</td>
</tr>
<tr>
<td>Tourist attractions/ places to visit are varied.</td>
<td>0.799</td>
<td>12.85</td>
<td>0.729</td>
<td>25.25</td>
<td>0.903</td>
<td>0.703</td>
</tr>
<tr>
<td>Infrastructure of the city and atmosphere (Infatm)</td>
<td>1.838</td>
<td>0.727</td>
<td>0.942</td>
<td>0.600</td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is a rich and varied gastronomy/ a wide offer of restaurants.</td>
<td>0.7410</td>
<td>24.88</td>
<td>0.915</td>
<td>0.840</td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is a good variety of shops and many facilities for shopping.</td>
<td>0.825</td>
<td>39.10</td>
<td>0.920</td>
<td>46.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are enough leisure activities.</td>
<td>0.760</td>
<td>24.35</td>
<td>0.920</td>
<td>46.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is a quiet city.</td>
<td>0.735</td>
<td>25.58</td>
<td>0.920</td>
<td>46.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residents are friendly and welcoming.</td>
<td>0.735</td>
<td>25.58</td>
<td>0.920</td>
<td>46.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The weather is nice.</td>
<td>0.729</td>
<td>25.25</td>
<td>0.920</td>
<td>46.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban environment (Urbenv)</td>
<td>1.371</td>
<td>0.211</td>
<td>0.915</td>
<td>0.840</td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is a good urban environment with low levels of environmental pollution (traffic, noise, etc.).</td>
<td>0.910</td>
<td>36.35</td>
<td>0.920</td>
<td>46.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Street/area cleaning is optimal.</td>
<td>0.908</td>
<td>32.50</td>
<td>0.920</td>
<td>46.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Socioeconomic Environment (Soecnv)</td>
<td>1.816</td>
<td>0.028</td>
<td>0.926</td>
<td>0.863</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shops have a good price-quality relationship.</td>
<td>0.955</td>
<td>71.99</td>
<td>0.920</td>
<td>46.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restaurants have a good price-quality relationship.</td>
<td>0.908</td>
<td>32.50</td>
<td>0.920</td>
<td>46.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Satisfaction (reflective)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.980</td>
<td>0.940</td>
</tr>
<tr>
<td>I am satisfied with my visit to Valencia.</td>
<td>0.960</td>
<td>71.25</td>
<td>0.920</td>
<td>46.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My decision to visit Valencia was good.</td>
<td>0.970</td>
<td>82.60</td>
<td>0.920</td>
<td>46.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel good about visiting Valencia.</td>
<td>0.975</td>
<td>103.89</td>
<td>0.920</td>
<td>46.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Behavioural intention (reflective)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.920</td>
<td>0.780</td>
</tr>
<tr>
<td>I would say positive things about Valencia to my friends and relatives.</td>
<td>0.957</td>
<td>128.60</td>
<td>0.920</td>
<td>46.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would recommend Valencia to anyone who asks me for advice.</td>
<td>0.960</td>
<td>176.77</td>
<td>0.920</td>
<td>46.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would visit Valencia in another occasion.</td>
<td>0.710</td>
<td>15.30</td>
<td>0.920</td>
<td>46.29</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

VIF: Variance Inflation Factor; AVE: Average Variance Extracted

Table 2. Structural model results

<table>
<thead>
<tr>
<th>H_0</th>
<th>(β)</th>
<th>Weights</th>
<th>t-value (bootstrap)</th>
<th>R^2</th>
<th>Q^2</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Image → satisfaction</td>
<td>0.500</td>
<td>9.320</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction → behavioural intentions</td>
<td>0.810</td>
<td>18.380</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Image → behavioural intentions</td>
<td>0.035</td>
<td>0.619</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Formative measures

| Restou → Image                           | 0.235 | 3.990   |        |      |      |         |
| Infatm → Image                           | 0.727 | 5.199   |        |      |      |         |
| Urbenv → Image                           | 0.211 | 3.825   |        |      |      |         |
| Socenv → Image                           | 0.028 | 0.180   |        |      |      |         |

Effects on Satisfaction

| Effects on Satisfaction                  | 0.245 | 0.225   |        |      |      |         |

Effects on Behavioural intentions

| Effects on Behavioural intentions        | 0.682 | 0.502   |        |      |      |         |

Note: ns – not significant

4.2. Multi-group analyses

The moderating impact of the type of information used was tested by dividing the sample in two groups: (1) individuals who checked Internet sources (n = 303), and (2) cruise tourists who used other type of sources (n = 145). Those respondents who declared having used both Internet and other sources were eliminated from the sample.
(a total of 44 individuals). To guarantee that group differences were based solely on prior knowledge acquired through information sources, we corroborated that variables such as gender, age, and education were not exerting a confounding effect on the established relationships. For this purpose, we applied comparisons between the destination knowledge of the participants based on the type of information sources they consulted and these variables using cross frequency tables and an X² test. Our results showed that the correlations between destination knowledge acquired through different types of information sources and participants’ gender (X² = 2.252; p=0.122), age (X² = 0.995; p=0.298), and level of education (X² = 0.000; p=0.987) were not statistically significant. Table 3 presents the standardized coefficients and t-test differences in the multi-group model coefficients.

Table 3. Multi-group analysis. Test Results

<table>
<thead>
<tr>
<th>Information sources</th>
<th>Satisfaction</th>
<th>Behavioural Intentions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β^a</td>
<td>β^b</td>
</tr>
<tr>
<td>Image</td>
<td>0.641</td>
<td>0.498</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: ^a: first group; ^b: second group; ns: non-significant

The results demonstrate that prior knowledge acquired through information sources moderates the relationship between image and satisfaction (H1 supported), and the relationship between satisfaction and behavioural intention (H2 supported). The influence of destination image on visitor’s satisfaction is proved to be higher when the tourist has previously consulted online information sources (β=0.641). However, satisfaction played a more significant role in leading to future behavioural intentions for tourists, who have used other information sources (β=0.672).

5. Conclusions and managerial implications

The findings of this study demonstrate that previous knowledge about port of call destination acquired through different information sources moderate the interaction between destination image and satisfaction, as well as the relationship between satisfaction and behavioural intentions. The results supported previous studies about the influence of knowledge based on past travel experience on the sequence image-satisfaction-loyalty in other tourism contexts (Chi, 2012; San Martin et al., 2013).

In the case of tourists who used online information sources, image has a greater role in satisfaction formation than those who consulted the traditional offline ones. One possible explanation for this result could be that the variety of information found online contributes to a stronger and a more complete image of the destination. This finding could also be attributed to the fact that when a tourist surf on the Internet, his/her searching is conditioned by his/her own interests, in contrast to the information provided by traditional sources which may not include the information that the visitor would really appreciate, as it is more general and not customized (for example, a travel guide published two years ago may not contain information regarding a newly-opened fancy shopping mall, but checking destination’s tourism website will surely inform about it).
Also, a noteworthy finding of the present research is that satisfaction has a greater influence on future behavioural intentions for those cruise tourists, who used information sources other than the Internet. This result may be due to the fact that this group of cruise tourists have a weaker image of the destination and because of that satisfaction with the port of call visit would be the key to the development of future behavioural intentions.

The information obtained from the present research have a number of practical implications for destination marketing organisations, which should develop strategies to increase cruise tourists’ satisfaction with the onshore stay, so that to ensure their intention to return and recommend the destination to others. Moreover, given the differences between tourists’ behavioural intentions based on the type of information consulted, local tourism boards are encouraged to promote their official websites and social media channels to cruise tourists, so that they can obtain a more complete image of the destination. An additional course of action for tourism information offices could be to elaborate suggestions for cruise tourists on how to spend their port of call stay getting experiencing the most of the destination in the limited time given.

References


