The effect of user-generated content on tourist behavior: the mediating role of destination image

El efecto de los contenidos generados por otros usuarios sobre el comportamiento turístico: el papel mediador de la imagen de destino

María del Carmen Hidalgo Alcázar
Departamento de Comercialización e Investigación de Mercados, Facultad de Economía y Empresa, Universidad de Murcia, Campus de Espinardo, 30100. Murcia, España. mc.hidalgoalcazar@um.es

María Sicilia Piñero
Departamento de Comercialización e Investigación de Mercados, Facultad de Economía y Empresa, Universidad de Murcia, Campus de Espinardo, 30100. Murcia, España, sicilia@um.es

Salvador Ruiz de Maya
Departamento de Comercialización e Investigación de Mercados. Facultad de Economía y Empresa, Universidad de Murcia, Campus de Espinardo, 30100. Murcia, España,

Abstract
The importance of the Internet on the image formation process has been widely recognised by both academic and practitioners. Despite the increasing use of user-generated electronic content as an information source for tourists, its influence on destination image formation is not yet fully understood. In order to bridge this knowledge gap in tourism management, we conducted an empirical study to identify the impact of online user generated reviews on the two dimensions of destination image: affective and cognitive.

The results of this study extend previous works by demonstrating how user-generated content affects the image of a tourist destination. This study also analyses the mediating effects of the cognitive and affective dimensions of destination image on behavioural intentions.

Keywords: User-generated content, destination image, cognitive image, affective image, tourist destination.

1. Introduction
Tourism is one of the sectors that provides the largest contribution to the economic development of countries. It contributes to income and employment generation in society and to the enrichment of many related industries. Tourism is an economic activity that already accounts for 5% of the world’s GDP (UNWTO, 2012) where competence is more and more intense. Destinations largely compete based on their perceived images relative to competitors in the marketplace (Baloglu & Mangalagudi, 2001). Therefore, it is necessary to develop a positive image of the destination in target markets to achieve a real competitive advantage (Gartner, 1993; Baloglu & McGeary, 1999b).

Tourists now have online resources that enable them to search for possible destinations, transportation, accommodation and leisure activities, in addition to the purchase of these services (Akehurst, 2009). The importance of the Internet in the image formation process has been recently recognised by both academic and practitioners. Previous research has shown online browsing influences on both the cognitive and the affective dimensions of image, although most previous research has focused purely on the cognitive component (Echtner & Ritchie, 1991; Walsme & Young, 1998; Chen & Uysal, 2002). This lack of research is especially visible in the tourism sector where the industry has witnessed fundamental changes in the last years (Buhali & Law, 2008; Minghetti & Buhalis, 2010). In addition, the Internet has changed tourist behaviour dramatically (Mills & Law, 2004). Prospective travellers have direct access to a much greater wealth of information and can make online purchases themselves, instead of relying on travel agencies (Morrison et al., 2001). The influence of the Internet on destination image is yet to be fully revealed as the virtual environment is broad and boasts different platforms, such as blogs and web forums, that might have differential effects on the image held by tourists (Jani & Hwang, 2011).

In this context, online user-generated reviews about travel destinations, hotels, and tourism services have become important sources of information for travellers (Pan, MacLaurin & Crotts, 2007). Each year hundreds of millions of potential visitors consult online reviews (Tripadvisor, 2012). Academic research is also interested in studying this behaviour. Goldenberg et al. (2001) observed that consumer decision-making processes are strongly influenced by word-of-mouth (WOM) from other consumers. In addition, Gretzel and Yoo (2007) further found that reviews provided by other travellers are often perceived by readers to be more up-to-date, enjoyable, and reliable than information provided by travel service providers.

Destination and travel marketers are interested in influencing tourists’ behaviour to encourage them to favour and purchase their products and services – including destinations. With the upsurge in use of user-generated content (hereafter UGC) as it occurs in blogs and web forums, the influence of tourism marketers on potential tourists seems to be diminishing (Pan,
MacLaurin, & Crotts, 2007). UGC includes online information sources that are created, initiated, circulated and used by consumers who intend to educate each other and share information about products, brands, services, personalities and other issues (Blackshaw & Nazzaro, 2004).

Recent research on destination image (Echtner & Ritchie, 2003; Tasci & Gartner, 2007; Tasci, Gartner & Cavusgil, 2007) and on the use of electronic platforms by tourists (Schnaegge & Carson, 2008; Wenger, 2008) has flourished. However, despite the crucial role they play in the modern tourism industry, little work has been done on how web forums and blogs are used to measure and build a destination image (Wenger, 2008), particularly those capturing destination image in a holistic manner (Echtner & Ritchie, 2003; Carson, 2008). In this study we first analyse to what extent access to UGC influences two dimensions of the destination image: cognitive and affective. Second, we analyse the mediating role of the cognitive and affective dimensions of image on the relationship between access to UGC and behavioural intentions. According to these objectives, we first review the literature and propose a set of hypotheses, then describe the methodology and present the results. We end with conclusions and implications derived from this research.

2. Literature review and hypotheses development

2.1 User-generated content in tourism and destination image

Consumers are using electronic word-of-mouth (eWOM) more and more to share opinions and experiences about products and services (Rezabakhsh et al., 2006; Mendes, Tan & Mills, 2012). We can find a great deal of content on the Internet about entertainment and providing reviews on products and services such as books, restaurants, and hotels (George & Scerri, 2007). UGC is an electronic communication phenomenon enabled by Web 2.0, the second generation of web-based services, which allows people to collaborate and share information online (Cox et al., 2009). Because of the experiential nature of tourism products for which previous quality cannot be ascertained, WOM and, more recently, eWOM are much relied on by potential tourists in forming images (Gretzel, Hyan & Yoo, 2007; Pan et al., 2007; Cox et al., 2009). Consequently, UGC serves as an information source for potential tourists (Ye et al., 2009).

Destination image can be viewed as a set of beliefs, ideas, and impressions that people have about attributes and/or activities available at a destination (Richardson & Crompton, 1988; Dadgostar & Isostalo, 1992; Kotler, Haider & Rein, 1993). As destination image is developed through a complex process of learning and information sharing (Wenger, 2008), it is of interest to focus on the shared information available on platforms through which tourists communicate with each other communication spaces such as forums, public internet discussion boards, blogs, social networking sites (such as Facebook and MySpace) and also private web sites (Jani & Hwang, 2011). Destination image can be categorised on a temporal basis as pre- or post-travel image (Sussman & Udel, 1999; Beerli & Martin, 2004; Frias et al., 2008; Yilmaz et al., 2009); on an attribute basis as functional and/or psychological image (Echtner & Ritchie, 1993, 2003; Tasci et al., 2007; Bigné, Sánchez & Sans, 2009); and on the basis of tourist response as cognitive and/or affective image (Baloglu & McCleary, 1999b). This last perspective is the one used in this study because much research has focused purely on the cognitive dimension and many researchers have asked for the inclusion of the affective dimension (Kim & Richardson, 2003; Li et al., 2009).

An increasing number of researchers have directed their attention to identifying what constitutes destination image (Lawson & Band-Bovy, 1977; Dichter, 1985). Much empirical research supports the premise that destination image is composed of two dimensions: cognitive and affective (Crompton, 1979). The cognitive component refers to the beliefs or knowledge a person has about the characteristics or attributes of a tourist destination (Baloglu & McCleary, 1999; Pike & Ryan, 2004), while the affective dimension is represented by the individual’s feelings towards the tourist destination (Chen & Uysal, 2002; Kim & Richardson, 2003).

With some exceptions (Baloglu & McCleary, 1999; Maclay & Fesenmaier, 2000; Uysal, Chen & Williams, 2000), most destination image studies focus exclusively on the cognitive dimension of destination image and overlook the affective dimension. The cognitive dimension has been extensively examined in tourism literature (Faleye & Crompton, 1991; Court & Lupton, 1997; Chen & Kerstetter, 1999; Leisen, 2001). However, Kim and Richardson (2003) posit that in tourism contexts, evaluation of affective qualities of places might become even more important than objective or perceptible properties of places. Only recently, several studies (San Martín & Rodríguez del Bosque, 2008; Li et al., 2009; Wang & Hsi, 2010; Moreno, Molina & Moreno, 2013) have proposed the cognitive-affective nature of destination image. This concept is integrated not only through the individual’s cognitive evaluations but also through their affective evaluations of a tourist destination (Kim & Richardson, 2003; Pike & Ryan, 2004). According to the literature, the coexistence of both components may better explain the image a tourist has of a destination (Baloglu & Brinberg, 1997).

Moreover, there is a higher perceived credibility of opinions expressed in UGC as compared to traditional tourism information sources (Sarks 2007). The explanation of this evidence probably lies in the necessity of consuming tourism products before an evaluation can take place (Senecal & Nantali 2004; Rabanser & Ricci 2005). As a result, online reviews and WOM recommendations are a growing and important information source because of the perceived independence of the message source (Gitelson & Kerstetter 1995; Crots 1999; Dellarocas 2003; Johnson & Payne 2003; Hennig-Thurau et al. 2004; Pan et al. 2007; Litvin et al. 2008). A recent UK survey found consumers put more trust in sites with reviews than in professional guides and travel agencies (eMarketer, 2007). Similarly, Oelrich and Auhuber (2007) showed online customer ratings have high credibility among consumers in Germany and Austria. Furthermore, a study undertaken on TripAdvisor users found that looking at other tourists’ comments and travel blogs was the most popular online activity (Gretzel et al., 2007).

According to Brand Signal Theory (Erdem & Swait, 1998), when tourists trust destination sources, the information provided is likely to exert a persuasive effect on their opinions about destination image. Since UGC is very credible, it can help tourists and travellers to form the image of a destination. Consumer access to information related to attributes, experiences and emotions shared by other tourists may then affect their perceived image of the destination. Therefore, based on the idea that destination image has two dimensions – cognitive and affective – we propose:

H1: Access to UGC positively influences the cognitive dimension of image destination.

H2: Access to UGC positively influences the affective dimension of image destination.

As the tourism industry provides so much potential for destinations, it is imperative that marketers understand the reasoning behind the intention to visit. Intention to recommend the destination has been also considered a good indicator of behaviour in this context because most tourist decisions are based on WOM (Kneese et al., 2010).

How to attract tourists to visit a place and/or how to encourage them to recommend the destination to others is crucial for the
success of destination tourism development (Chen & Tsai, 2007). Ye et al. (2011) assessed the impact of UGC on business performance using data from a major Chinese travel agency. The findings indicated that tourists’ purchase decisions are strongly influenced by online travel reviews. Casaló et al. (2011) investigated some of the antecedents of the travellers’ intention to follow the advice obtained from UGC in the online travel community. Perceived usefulness of the advice, trust in the online travel community, and attitude toward the advice were found to be relevant to Spanish speaking members of several online travel communities in determining their intention to follow the advice obtained in these communities. Additional studies have also shown that online travel reviews may influence the decisions of travellers. Vermeulen and Seegers (2009) conducted an experimental study with 168 participants to determine the impact of online reviews on the attitudes of travellers to hotels which revealed that exposure to online reviews enhanced hotel awareness and that positive reviews improved the attitudes of travellers towards hotels. Based on survey data with 1480 respondents, Gretzel and Yoo (2008) examined the role of travel reviews in trip planning processes and demonstrated the importance of online consumer reviews at an individual level. The importance of UGC goes far beyond the tourism sector. In a more general study, access to UGC was also found to increase consumers’ intention to purchase and the likelihood of buying a recommended product (Senecal & Nantel, 2004). Thus, we expect that when a person accesses UGC for a particular destination, s/he will be more likely to visit the destination and recommend it to others, which, in turn, will positively influence her/his future behaviour. We thus propose:

H3: Access to UGC positively influences behavioural intentions

2.2 Destination image as a mediating construct

Destination image has a critical influence on travellers’ destination choice processes (Cai, 2002), and it is a crucial method of differentiating destinations among competitors. When potential travellers have a limited knowledge of a destination, perceived image fulfills an important function. Strong, positive, distinct and recognizable images increase the probability of a destination being chosen by travellers. Destination marketing therefore often focuses on promoting a favourable destination image, which can provide travellers with vicarious experiences before an actual visit (Hyun & O’Keefe, 2012). The importance of developing a favourable destination image motivates research on the formation of destination image through different types of information. We posit that access to UGC may enhance tourist perceptions of destination image, which, in turn, may positively impact behavioural intentions. Based on this rationale and on the cognitive and affective dimensions of destination image, the following hypotheses are proposed:

H4: The cognitive dimension of image destination mediates the relationship between access to UGC and behavioural intentions.

H5: The affective dimension of image destination mediates the relationship between access to UGC and behavioural intentions.

The conceptual model proposed is presented in Figure 1. As we can see in the model, access to UGC both directly and indirectly (through image dimensions) affect behavioural intentions. Therefore, this conceptual model highlights the role of UGC in explaining the behaviours of tourists.

3. Methodology

Data were collected in December 2012. Participants were recruited through advertisements in return for a small gift. The survey population consisted of individuals over the age of 18 who had not previously visited the destination and who did not belong to that area. We collected 194 valid questionnaires. The sample average age was 22 years (ranging from 18 to 28) and 53.1% of the participants were women.

On arrival at the computer laboratory, subjects were informed about the procedure. A pre-test was run to ensure the statements were understood. Participants freely visited for a few minutes the website of a rural destination as if they were looking for a weekend trip (5 to 10 minutes). After website exposure, individuals responded to the questionnaire which contained the variables of the proposed model.

In order to ensure content validity, selected items for the constructs were primarily revised from prior studies in the tourism context. All the constructs, except for image, behavioural intention and demographic variables, were measured on 10-point Likert scales. Image scales were based on 10-point semantic differential scales. Affective image was measured by Russel’s (1980) four bipolar affective items: “pleasant/unpleasant,” “relaxing/distressing,” “arousing/sleepy,” and “exciting/glumy.” The use of these scales in destination studies has been also reported by other authors (Baloglu & Brinberg, 1997; Walmsley & Young, 1998; Baloglu & McCleary, 1999a, b; Baloglu & Mangalagoli, 2001). For the cognitive image dimension, items were borrowed from Ong and Horbunluekit (1997). We used the most applicable items as some of these included adjectives that were not truly bipolar, and some were not really representative of the cognitive image dimension (Ekinci & Hosany, 2006; Li, et al, 2009). The final set of bipolar adjectives
retained in this study to capture the cognitive image includes "isolated/accessible", "unfriendly/ friendly", "dirty/ clean", "quiet/ noisy" and "unsafe/ safe". The respondents were also asked to rate their overall impression of this destination by selecting a value on a 10-point Likert scale from 1 (very negative) to 10 (very positive) (Baloglu & McCleary, 1999a). Behavioural intentions were measured by asking the respondents whether they would recommend the rural destination to their family and friends and whether they would consider visiting the destination. This measurement was based on Knesel, Baloglu and Millar (2010), with an anchor of 1 being not recommended at all, and 10 being definitely recommend, and with 1 being definitely not consider visiting, and 10 being definitely will, respectively. We included a question in which we asked participants whether they had accessed the web opinions generated by other users or not. This was a yes/no question. Moreover, in order to control for possible confounding effects, we measured general attitude to WOM with items borrowed from Park et al. (2007). At the end of the questionnaire, individuals provided some demographic information, gender, age and city of residence.

4. Results
We used the bootstrap method of Preacher and Hayes (2008) to estimate the direct and indirect effects and the bias-corrected 95% confidence interval (CI) for each individual mediator (Table 1). Recent reviews indicate that researchers often use causal steps strategy, particularly Baron and Kenny's (1986) approach and the product-of-coefficient approach (e.g., the Sobel test), to test mediation effects (Mathieu, DeShon & Bergh, 2008). However, the latter approaches were not adequate for the present study for two reasons. First, Baron and Kenny's (1986) method was proposed to test models with a single mediator instead of multiple mediator models (Preacher & Hayes, 2008). Second, the bootstrap method solves the problem of a non-normal sampling distribution produced from the indirect effect being a product of two parameters a and b (Preacher & Hayes, 2004; Zhao et al., 2010) by generating an empirical sampling distribution of a x b.

Table 1 - Regression results for the mediating effects of the cognitive and affective dimensions of destination image on the relationship between access to UGC and behavioural intentions.

<table>
<thead>
<tr>
<th>Model</th>
<th>Estimate</th>
<th>SE</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: UGC → CI (a1)</td>
<td>0.3677</td>
<td>0.1545</td>
<td>0.0183</td>
</tr>
<tr>
<td>H2: UGC → A1 (a2)</td>
<td>0.0401</td>
<td>0.1571</td>
<td>0.2553</td>
</tr>
<tr>
<td>CI → B1 (b1)</td>
<td>0.4860</td>
<td>0.1239</td>
<td>0.0001</td>
</tr>
<tr>
<td>A1 → B1 (b2)</td>
<td>0.6331</td>
<td>0.1218</td>
<td>0.0000</td>
</tr>
<tr>
<td>H3: UGC → B1 (c')</td>
<td>-0.3977</td>
<td>0.2244</td>
<td>0.0780</td>
</tr>
<tr>
<td>H4: Indirect effect (a1 x b1)</td>
<td>0.1787</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>H5: Indirect effect (a1 x b2)</td>
<td>0.0254</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: UGC (access to User-Generated Content) is the independent variable (X), CI (cognitive dimension of image destination) is the mediator (M1), A1 (affective dimension of image destination) is the mediator (M2), B1 (behavioural intentions) is the outcome (Y).

Source: Authors

Results show, first, a positive and significant relationship between access to UGC and the cognitive dimension of image destination (β=0.3677; p<0.05), but not between access to UGC and the affective dimension (β=0.0401; p>0.05). Thus, H1 is supported but H2 is not. The direct effect between access to UGC and behavioural intentions (c’) is only marginally significant (p=0.0780). Thus, H3 is not fully supported. However, the indirect effect through the cognitive dimension of image is positive and significant (a1 x b1) with 95% confidence interval excluding zero (0.0383 to 0.4270). Thus, H4 is supported. The next indirect effect flows from the access to UGC to behavioural intentions through the affective dimension of image destination (a1 x b2). In this case, the confidence interval includes zero (-0.1655 to 0.2246). Therefore, results do not support H5.

In summary, only the cognitive image, as a dimension of destination image, mediates the relationship between access to UGC and behavioural intentions. A new literature revision gave us an explanation of this result. A common agreement among researchers appears to point out that affective evaluation depends on cognitive assessment while affective responses are formed as a function of cognitive responses (Gartner, 1993; Stern & Krakover, 1993; Vogt & Anderleek, 2003; Ryan & Cave, 2005). This perspective suggests that although a distinction is made between the two dimensions, they are also interrelated. The direction of the relationship between perceptual/cognitive and affective components has been discussed in various consumer and tourism decision-making models (Mayo & Jarvis, 1981; Woodside & Lyonski, 1989; Crompton & Ankomah, 1993). Mayo and Jarvis (1981) conceptualised a model of the tourism decision-making process with special emphasis on attitudes or images toward destinations. In this model, tourists form their feelings as a function of beliefs and opinions. When relating image formation to the destination selection process, Gartner (1993) proposed that the cognitive component (defined as the sum of beliefs and knowledge of attributes of the object or product), and the affective component (defined as the individual’s feeling towards the tourist destination) are hierarchically related. These findings along with the results obtained in the proposed model led us to propose a new conceptual model.

Figure 2 depicts a renewed version of the previously proposed model. A new inspection of the data seems to confirm that the new model better explains behavioural intentions and confirms previous findings in destination image research. As Baloglu and McCleary (1999), Beerli and Martin (2004) show, the formation of a cognitive image influences the formation of an affective image (β=0.556), which, in turn, affects what is called behavioural intentions (β=0.633). The direct influence of access to UGC on behavioural intentions is not significant in this model. However, the results suggest a direct relationship between access to UGC and cognitive image, and an indirect relationship between access to UGC on behavioural intention through the cognitive and affective dimensions of image destination. Therefore, the cognitive dimension of image is the first variable
to be affected by access to UGC. This result implies that the individual is able to compose a cognitive image of the destination based on the reviews and opinions he/she has read.

Figure 2 - New version of the conceptual model

![Figure 2](image)

\[\text{Indirect effect 1:} \quad \beta = 0.367^* \quad \text{Access to UGC} \rightarrow \text{Behavioral intentions} \]

\[\beta = 0.178 \ (CI \ of \ 0.0383 \ to \ 0.4270) \quad \text{Indirect effect 2:} \]

\[\beta = 0.131 \ (CI \ of \ -0.1655 \ to \ 0.2246) \]

Note: **p < 0.01; * p < 0.05; CI, confidence interval; ns, Not significant

Source: Authors

5. Conclusions

The increased use of web 2.0 applications has generated much UGC. The intangible nature of tourism products impedes evaluation before consumption, while it has long been recognised that interpersonal communications are an important information source among tourists (Litvin et al., 2008). With the spread of Internet use, virtual interactions among consumers have become commonplace, which has led some tourism researchers to point out that online WOM plays an important role in the acquisition and retention of consumers in an e-commerce era (Litvin et al., 2008; Vermeulen & Seegers, 2009; Ye et al., 2011). Results of this study extend previous works on the online context by demonstrating how UGC affects the image of a tourist destination. This study has observed that rather than considering the web as merely an information source (Frias et al., 2008; Li et al., 2009), it should be considered a channel through which to create and promote a positive image of the destination.

For potential tourists, UGC is an important information source in forming an image of a particular destination. Tourism destinations need to disseminate favourable experiences to tourists, and these experiences include advice and comments from other travellers. This study contributes to the literature on tourism by revealing the influence of access to UGC on behavioural intentions through destination image. The results suggest that access to UGC have a significant impact on the cognitive dimension of image and finally on future behaviour of tourists. Moreover, as Gartner (1993), Vogt and Anderreck (2003), and Ryan and Cave (2005) suggest, the cognitive dimension of image has a significant impact on the affective dimension.

There are some limitations in this study. First, we analysed how UGC from the official destination site influences the image of a tourist destination, but further research should be conducted to find out what results are produced by other sites or platforms. It would be then interesting to address other platforms different from the official destination site. For example, social networks such as Facebook or Twitter may also contribute to image creation and their impact on behavioural intentions should be addressed in future research.

Our results may help both public administrations and tourism marketing managers to understand the image formation process and to design more efficient marketing strategies for tourist destination sites. Marketers should provide more functional or cognitive information to tourists involved in trip preparation, while also providing appropriate services during the vacation to satisfy these tourists. They will then acquire a good image of the destination and will therefore visit the destination and spread a positive image by WOM to other potential travellers.

Acknowledgements

This research was supported by the grant EC02012-35766 from the Spanish Ministry of Science and Innovation and by the Fundación Séneca-Agencia de Ciencia y Tecnología de la Región de Murcia (Spain), under the II PCTRM 2007-2010. Authors also thank the support provided by Fundación Cajamurcia.

References


**Article history**

Submitted: 29 June 2013  
Accepted: 25 November 2013