Destination image gaps between official tourism websites and user-generated content

Estela Marine-Roig and Salvador Anton Clavé

E. Marine-Roig

Department of Business Administration and Economic Management of Natural Resources (AEGERN), University of Lleida, Catalonia, Spain

e-mail: estela.marine@aegern.udl.cat

S. Anton Clavé

Research Group on Territorial Analysis and Tourism Studies (GRATET), Rovira i Virgili University, Catalonia, Spain

e-mail: salvador.anton@urv.cat

Abstract

The aim of this paper is to analyse and compare destination image on official tourism websites with the image expressed by tourists in travel blogs and reviews in order to assess image congruency and identify image gaps at different geographical brand levels. This is done through a massive computerized semi-automatic content analysis of attraction factors and geographical elements on official tourism websites and in 46,576 travel blogs and review entries about Catalonia and its sub-regional brands. Our results show relative image congruency at regional level, but significant image gaps at sub-regional levels, indicating the need for coordinated image policies at different geographical levels.

Keywords: official tourism websites; projected image; user-generated content; travel blogs and reviews; perceived image; Catalonia.

1 Introduction

Research on destination image has been a constant throughout the years. Destination image may be defined as the sum of beliefs, ideas, and impressions that a person has of a particular place (Crompton, 1979). Destination images are complex constructs understood from two perspectives: the projected image, formed through several information sources including destination management organizations (DMO) and the tourist industry, and the image perceived by the tourist, generated from the information received through indirect sources and his/her own tourist experience at destination level (Gartner, 1994; Kim & Lehto, 2013; Marine-Roig, 2015).

Most authors agree as to the importance of the Internet as an information source when planning a trip, taking tourism decisions and forming images (Choi, Lehto & Morrison, 2007; Kim & Lehto, 2013; Bastida & Huan, 2014; Fernández-Cavia, Rovira, Díaz-Luque & Cavaller, 2014; Rodríguez-Molina, Frías-Jamilena & Castañeda-García, 2015). For instance, the Eurobarometer (2015) survey on the preferences of Europeans towards tourism indicates that the most important information source for taking decisions about travel plans (54%) are online sources (46% Internet websites and 8% social media).

In this context, increasing interest is being given to the different online images provided by users, or user-generated content (UGC), and how different they are from the ones produced by DMOs (Bandyopadhyay & Morais, 2005). Indeed, the goal of DMOs, insofar as possible, is to match the projected and perceived images of the destination (Mackay & Fesenmaier, 1997), and UGC offers an open window to tourists' perceived images, as represented during a post-trip phase.

However, even though studies emphasize the need to assess both images at the same time (Mercille, 2005), still little research has been conducted to analyse the image held by tourists and by DMOs simultaneously (Chen, Yung & Wang, 2008). In fact, in the context of the Internet there is a need to study the image present in UGC sources and compare it to the official image in order to identify gaps and ways to improve brand image. Although some studies have been conducted comparing official tourism websites (OTWs) and UGC (Choi et al., 2007; Chen et al., 2008), no studies have compared and analysed online destination image gaps at different geographical levels at the same time, which is necessary to assess brand strategies at national and sub-regional levels (Crompton, 1979). Moreover, destination websites have usually been analysed in terms of effectiveness, usefulness, design, and information and website quality (Bastida & Huan, 2014; Fernández-Cavia et al., 2014; Rodríguez-Molina et al., 2015), but not so often in terms of the image they contain, although brand-related content on a destination website is one of the key aspects for web quality (Fernández-Cavia et al., 2014). Finally, much effort has been made to analyse the content of OTWs from a qualitative discourse analysis perspective, but quantitative studies of massive data sets are lacking (However, see, Kim & Lehto, 2013).

Therefore the aim of this study is to analyse and compare destination image on OTWs and from UGC sources, travel blogs and reviews (TBRs), in order to assess image congruency and identify image gaps at different geographical brand levels at the same time. Moreover, we aim to conduct this study from a quantitative perspective, and to target functional elements (attraction factors) and geographical elements of image through a massive computerized semi-automatic content analysis of OTW pages and more than 45,000 TBR entries of Catalonia and its sub-regional brands.

2 Background: representative dissonance and image congruency

Gartner (1994) suggested a model of image-formation where a continuum of different agents or information sources acts independently to form one single image in the mind of people. These range from the least credible to tourists, or the most highly destination-controlled (e.g. traditional DMO), to the organic most independent, influential and credible sources proceeding from friends and relatives through word-of-mouth. Today, with the irruption of the Internet, image formation agents have multiplied and parallels can be drawn between traditional forms of information and OTWs or between organic sources and e-WOM or UGC (Marine-Roig, 2015).

The issue of the dissonance of the representations of a destination proceeding from different agents or information sources, and how far they are from the 'reality' of destinations has been addressed by Bandyopadhyay and Morais (2005). In this respect, some authors contend that there are external or foreign agents who project the

images which are farther from reality and that there are local agents, especially local governments and the local community, who project images that are closer to reality (Mackay & Fesenmaier, 1997). Moreover, the farther tourists' reside from the destination, the more favourable the image seems to be (Crompton, 1979). Whatever the case, beyond the characteristics, size, accessibility, popularity or reputation of each destination, the contents of a territory's tourist communication strategies are usually conceived as its legitimate representation (Anton Clavé, 2010).

Today, one of the most important tools that destinations have to disseminate or project their image is OTWs. In spite of Gartner's (1994) classification of traditional forms of advertising as being the least credible and influential, several authors defend the importance, potentialities and increasing popularity of destination websites in tourists' choice of destination, asserting that it is websites that officially represent the cities that have the greatest impact on visitors (Bastida & Huan, 2014) or that they can change destination images (Dragova, Petrovskaya & Egger, 2014).

However, the efforts put into building OTWs and projecting certain destination images should be assessed through comparison with tourists' actual perceived images of as "the valid significance of a brand is that registered by its public" (Fernández-Cavia & Huertas-Roig, 2009). Indeed, the goal of marketers is to match to the greatest extent possible the projected and perceived image of the destination, and it is assumed that the greater the congruency, the better (Crompton, 1979; Mackay & Fesenmaier, 1997). In terms of branding, to maintain a brand-consumer relationship it is imperative that the projected brand image and the brand perception should be aligned in harmony (Kim & Lehto, 2013). However, conversely, Moura, Gnoth and Deans (2014) found that the depiction of incongruent cultural values to a target audience on destination websites generates a more positive destination image and greater willingness to travel, contradicting the current localization literature.

In general, although Perry (1978) found that image projected by travel agents was similar to that perceived by travellers, as Choi et al. (2007) and Andreu, Bigne and Cooper (2001) explain, the literature shows that the images perceived by tourists seldom coincide with the images projected by suppliers because of various factors involved in image formation.

In fact, the term "congruency" between perceived and projected images is coined to measure the gap between the two types of image. Addressing and minimizing image gaps becomes crucial for destinations (Dinnie, 2008) as the existing perception gap can affect not only culture but also the economy and foreign investment in the destination, and may affect the destination's capacity to attract more visitors (Bui, 2011). In this respect some notable studies have been conducted comparing projected and perceived images. Mercille's (2005) compared the images of Tibet within mass media artefacts (such as movies, books and magazines) to which tourists had been exposed with their actual perceived images and identified several perception gaps (Mercille, 2005). Andreu et al. (2001) shed light on the issue by analysing the relationship between the perceived and projected image of Spain in the British market. What the authors note is that a gap exists between the two images. The information the consumer receives tends to be limited and simplified by stereotypes and also by the influence of sources of information that cannot be controlled by those

who are responsible for the marketing of the destination. Bui (2011) measures the level of congruence between destination image projected by the tourism public sector and the image perceived by international tourists.

In an online environment, Krizman and Belullo (2007) aimed to identify the image representations of Istria as a tourism destination on the Internet, and understand the importance of the Internet as an agent creating tourism destination image. Choi et al. (2007) identified the image representations of Macau on the Internet by analysing the contents of a variety of web information sources, including OTWs and the perceived image as represented by users in travel blogs. Their analysis identified both attraction factors and most frequent destinations, but only through the most frequent words, and in the case of photographs, 11 sub-categories were used related to attraction factors (e.g. historic buildings and heritage). As the authors explained, the bloggers' viewpoints, to some extent, represented the perceived image of the targeted travelling public, while the travel trade's choices of words and visuals reflected the projected or intended images of Macau.

Chen et al. (2008) study precisely the image perception gaps between tourist blogs and travel information by comparing their contents and developing two matrices of image perception gaps of Kaohsiung City (Taiwan). Kim and Lehto (2013) compared projected and perceived destination brand personalities in the case of South Korea, and used OTWs to assess the projected image, and a survey on travellers to assess the perceived image.

In short, all online studies on image congruency between OTWs and UGC found significant dissonances, indicating several image gaps. In this context, and aware of the growing influence of e-WOM and UGC over tourism decision-making and destination image formation (Leung, Law, van Hoof, & Buhalis, 2013; Litvin, Goldsmith & Pan, 2008), it is imperative for DMOs to know exactly what is said by social media and users about a destination, such as in blogs and reviews, and how this differs from what the destination (DMOs or OTWs) says or would like others to say about it. This is of crucial importance not just for policy making but also for the impact it may have on destinations. Govers (2010) suggests the need for destinations to adopt "gap bridging" policies, and in this respect, quantitative computerized analyses that are capable of scrutinizing and comparing the massive quantities of UGC and DMO information online could be of help to manage destination image gaps and adopt corresponding policies.

3 Case Study

Catalonia and its sub-regional brands were selected as the case study region. Catalonia is the third European region as regards bed nights (Eurostat, 2014). It welcomed more than 20 million tourists in 2013, three-quarters of whom came from abroad. Its territory is divided into 9 tourist brands, which aim to delimit regions with relatively homogeneous tourist supply (figure 1). Besides, while studies on image representations that analyse OTWs and travel blogs and/or reviews at the same time have focused on cities (Choi et al., 2007; Chen et al., 2008), regions (Krizman & Belullo, 2007), and countries (Lehto & Morrison, 2013), no studies have been found

which analyse the same region at different geographical levels (the whole region of Catalonia and its sub-regional brands) as proposed in this research.

Figure 1. Tourist regions of Catalonia on 2015-01-01

Source: *Authors, taken from the Catalan Tourist Board (http://www.act.cat/?lang=en)*

4 Methodology

The methodology used for the analysis of OTWs and TBRs follows the steps proposed by Marine-Roig and Anton Clavé (2015a) consisting of semi-automatic downloading, arranging, cleaning, debugging and analysis of large scale online UGC and official data.

The first step was to select the TBR websites and the OTWs for analysis. TBR webhosts were selected with the criterion that they should have at least 100 entries about the case study, Catalonia, and then, a ranking was built by applying the weighted formula "TBRH=1*B(V) + 1*B(P) + 2*B(S)" (Marine-Roig 2014), where 'B' refers to Borda's ordering method, 'V' to website visibility (quantity and quality of inbound links), 'P', to popularity (received visits and traffic in general), and 'S', to size (number of entries related to the case study), and then the first four in the rank were selected (Table 1) which resulted in TripAdvisor (TA), VirtualTourist (VT), TravelBlog (TB), and TravelPod (TP). Then the OTWs of Catalonia and its sub-regional brands were selected (Table 2).

Table 1. Webometrics of the top four websites hosting travel diaries (2015-07-01)

		TA	TB	TP	VT
Indexed pages	Google.com	150,000,000	451,000	323,000	544,000
	Bing.com	38,700,000	111,000	292,000	992,000
Link-based rank	Google PR	7	6	6	7
	Yandex CY	1,900	120	375	350
Visit-based rank	Compete.com	45	32,996	19,222	2,225
	Quantcast.com	111	452,622	8,258	3,371
	Alexa.com	187	43,709	31,342	5,000
Size	Entries	46,073	146	218	154

TBRH	Rank	1	3	4	2

Source: Authors, taken from the mentioned websites

As observed in tables 1 and 2, TBR websites are far more visible and popular online than OTWs and thus have a greater potential to disseminate their image.

Table 2. Indexed pages of official websites in multilingual search engines

Domain name (2015-08-03)	**Brand**	**Bing**	**Google**	**Yandex**
BarcelonaTurisme.com	Barna	60,500	145,000	9,000
BarcelonaEsMoltMes.cat	cBarc pBarc	2,460	15,700	227
Catalunya.com	Catalonia	97,600	273,000	3,000
CostaBrava.org	cBrav	61,600	38,000	7,000
CostaDaurada.info	cDaur	9,120	442	351
LleidaTur.com	tLlei	25,400	41,400	430
Spain.info	Spain	317,000	151,000	17,000
TerresDeLEbre.travel	tEbre	26,600	30,100	162
VisitPirineus.com	Pyren	3,170	4,780	275
VisitValDAran.com	vAran	8,230	19,500	818

Source: Authors, taken from Bing.com, Google.com & Yandex.com (site:DomainName)

The second step of the methodology consists of *Data downloading*. In the case of TBRs, the websites were manually browsed to identify the initial pages containing hyperlinks which lead to the individual blogs and OTR pages about the case study, and their complete URLs were saved. Then, applying filters specific (Marine-Roig & Anton Clavé, 2015b) to each website (TA, TB, TP, VT) we proceeded with the massive downloading of the HTML pages of each website through the free programme HTTrack Website Copier (www.httrack.com). All TBRs concerning Catalonia in 2014 were downloaded. In the case of OTWs the process was the same, but the official websites of Catalonia and the sub-regional brands were downloaded on 2015-01-01 in their entirety and only the part of Spanish website (Spain.info) corresponding to Catalonia.

The third step of the methodology consisted of *Data arrangement*. The TBR files were arranged into a structure of folders and files facilitating multiple classifications: root\website\brand\destination\date_lang_pagename_[theme].htm. Data were classified according to geography, time, theme, and language (see Marine-Roig & Anton Clavé, 2015b). In the case of OTWs, files were classified into root\website\brand\destination\ and only the English section of the website was considered.

The fourth step of the methodology is *Data cleaning*. This process consisted of eliminating all the noise around the content of interest, which is what is written and posted by the tourist, in the case of TBRs, and the content of communication in OTWs. Therefore, given that the webpages of each site have a homogeneous structure and codification, elements not to be used in content analysis were deleted: comment, form, iframe, meta tag, and script; and superfluous elements such as menus, repetitive headers and footers of the site. The original HTML format was preserved in order to

be able to weight keywords and key phrases according to their potential impact (Marine-Roig & Anton Clavé, 2015a).

The fifth step, *Data debugging*, was only conducted in the case of TBRs. This consisted of detecting the most common mistakes, especially proper nouns, and amending them.

The sixth step is *Content analysis* itself. This was conducted through the Site Content Analyzer programme, which measures the frequency, density and weight of keywords. Subsequently, content categories were built in this case to analyse some functional image components of the destination, consisting of attraction factors, and the geographical dimension of image. The categories concerning attraction factors were created based on previous work (Echtner & Ritchie, 2003; Dragova et al., 2014). and were extended by the most frequent keywords in the analysed webpages, and finally consisted of 8 mutually exclusive categories: 1. Food and Wine, 2. Intangible Heritage, 3. Leisure and recreational activities, 4. Nature and active tourism, 5. Sports, 6. Sun, Sea, Sand, 7. Tangible Heritage, and 8. Urban Environment. Then the most significant keywords were grouped into these categories. Moreover, a geographical category was built consisting of all the names of the sub-regional brands, counties, cities, small towns/villages and residential areas.

5 Results

Geographical dimension

The mentions of the different destinations within each sub-regional brand, both in the case of OTWs and TBRs, were considered. In this respect significant dissonance is observed between both images. In terms of site-wide density, while in the case of TBRs the most mentioned destination and brand is by far Barcelona, followed at a great distance by Costa Daurada and Costa Barcelona, this is not the case of OTWs which more often mention destinations in Costa Brava or Pyrenees. Moreover, while OTWs seem to mention all destinations more or less equally (within a difference of less than a factor of 10), in the case of TBRs, the mentions are very much centred on a specific popular destination with differences superior to the order of 10^3 if compared to the other brand regions. The territorial distribution of contents in the case of TBRs is far more unequal than in OTWs. This means that apart from the major destination (Barcelona), the rest of territories and destinations are invisible to or not worth mentioning by tourists, which indicates a major image gap.

In terms of weight, we observe that in all cases the weight of the words related to destinations in the case of TBRs is superior to that of OTWs, meaning these names appear in much more prominent html positions such as the entry title.

Table 3. Geographic dimension: regional brand presence

Brand	Official tourism website pages			Travel blog and review entries in 2014			
	Count	Sitewide Density	Average Weight	Files	Count	Sitewide Density	Average Weight
Barna	12,491	1.0467%	26.24	40,156	91,359	2.8612%	66.97
cBarc	6,882	0.5767%	5.70	731	1,638	0.0513%	65.18

cBrav	29,428	2.4659%	32.86	1,907	5,281	0.1654%	55.28
cDaur	8,379	0.7021%	11.09	3,067	5,715	0.1790%	71.08
pBarc	5,232	0.4384%	14.34	512	5,476	0.1715%	57.62
Pyren	14,624	1.2254%	17.57	143	548	0.0172%	40.80
tEbre	8,403	0.7041%	28.90	22	145	0.0045%	43.73
tLlei	8,309	0.6963%	8.86	36	122	0.0038%	43.85
vAran	1,658	0.1389%	9.20	2	17	0.0005%	32.94

Attraction factors

At the general level of Catalonia, in terms of the attraction factor categories that are most mentioned by both types of sources, we can see some parallels in terms of site-wide density in most cases: Food and Wine, Intangible Heritage, Leisure and recreation activities, Sports, Tangible Heritage and Urban environment have similar densities and are therefore mentioned in a similar proportion across the files. This shows a generally congruent view of the region. However, in some cases there are some notable differences in terms of mentions: In the case of Nature and active tourism especially, but also in the case of the Sun, Sea, Sand, which are far more mentioned in the case of OTWs than in the case of tourists, indicating image incongruency in these factors that can either show that some attractions are unknown (most probably in the case of Nature and active tourism) or that they are not considered worth mentioning (which could be the case of Sun, Sea and Sand). In terms of weight, again in general TBRs use attraction factor-related words in the most prominent and visible places when posting contents. This is not the case, however, of Food and Wine, which is mentioned more prominently in the case of OTWs.

In terms of the comparison between OTWs and TBRs by sub-regional brands, in the case of Barcelona, remarkably the three densest categories coincide in both types of websites in the same order (Tangible Heritage, Urban Environment and Food and Wine), three elements that are strongly attached to the image of this capital city. However, in the case of OTWs these elements are about twice as dense, indicating strong brand image projection and a relatively coincident, but less intense, perceived image of these elements.

Table 4. Comparison of Attraction factor categories in Catalonia

Categories	Official tourism website pages			Travel blog and review entries		
	Count	Sitewide Density	Average Weight	Count	Sitewide Density	Average Weight
Food and Wine	12,272	1.0283%	24.09	24,068	0.7538%	18.47
Intangible Heritage	2,361	0.1978%	17.82	4,167	0.1305%	36.03
Leisure and recreational activities	10,028	0.8403%	19.12	28,044	0.8783%	31.48
Nature and active tourism	23,842	1.9978%	10.68	10,556	0.3306%	17.32
Sports	4,835	0.4052%	25.52	11,121	0.3483%	37.16
Sun, Sea, Sand	13,641	1.1430%	13.85	16,713	0.5234%	27.20
Tangible Heritage	60,037	5.0308%	18.26	145,782	4.5656%	37.23
Urban Environment	13,330	1.1170%	10.36	55,221	1.7294%	37.43

In the case of Costa Brava and Costa Daurada, two coastal brands, it is observed that all the different factors are promoted in a similar proportion in the case of OTWs, with Tangible Heritage being the most prominent, followed by Sun, Sea, Sand and Nature and active tourism. Although in the case of TBRs in Costa Brava the two most prominent elements coincide, the third element, Nature and active tourism, is one of the least mentioned, highlighting an image gap concerning this element. Yet more remarkable is the gap in the case of Costa Daurada, where the most prominent elements are not coincident. In Costa Daurada's TBRs, the densest element by far is Leisure and recreational activities. This can be explained because the words related to "Theme Parks" are very prominent, especially related to one specific theme park in the area (PortAventura). However, in OTWs this is not one of the densest elements. Sun, Sea, Sand coincides in second place in both types of websites, and Tangible Heritage only comes third. In the case of Costa Daurada, there is an important image gap, as for tourists, Leisure and recreational activities is the most central and differential element of the brand, while for OTWs this element is not emphasized.

In the case of the Pyrenees the brand image seems to be more congruent as in both cases Nature and active tourism is seen as the most prominent element in both OTWs and TBRs. Then, Tangible Heritage is also prominent in both cases in second (OTWs) and third (TBRs) position. However, in the case of the Pyrenees, there is a strong density of Intangible Heritage (including traditions and folklore) which is not emphasized in the case of OTWs. It is remarkable, therefore, that in this case tourists mention this Intangible Heritage far more than the OTWs in charge of promoting it.

Finally, in the case of Costa Barcelona and Paisatges Barcelona, OTWs most strongly mention Nature and active tourism, secondly Tangible Heritage and then Sun, Sea, Sand, and Food and Wine. In the case of TBRs, both brands are seen very differently. In the case of Costa Barcelona, more similarly to OTWs, the most prominent elements are Sun, Sea and Sand, Tangible Heritage, and Food and Wine. However, Nature and active tourism is mentioned very weakly in this case. Besides, in the case of Paisatges Barcelona the most prominent element is Tangible Heritage, followed by Nature and active tourism, which coincides with the two most prominent elements in the case of OTWs. Therefore, in this case, if we account for both brands we can see significant image congruency between OTWs and TBRs. However, in the case of Paisatges Barcelona, Urban Environment is also remarkably dense, probably due to its proximity to Barcelona.

Table 5. OTWs site-wide density of attraction factor categories per brands

OTWs	Barna	cBrav	cDaur	Pyren	cBarc + pBarc
Food and Wine	1.481%	1.301%	1.977%	0.692%	1.628%
Intangible Heritage	0.107%	0.210%	0.122%	0.393%	0.275%
Leisure and recreational activities	0.694%	1.066%	1.381%	0.453%	0.765%
Nature and active tourism	0.616%	2.016%	2.086%	4.522%	4.030%
Sports	0.882%	0.298%	0.486%	0.454%	0.424%
Sun, Sea, Sand	0.701%	2.034%	2.252%	0.352%	1.687%
Tangible Heritage	8.496%	3.130%	2.970%	2.829%	3.328%

Urban Environment	2.334%	0.718%	0.454%	0.388%	0.644%

Table 6. TBRs site-wide density of attraction factor categories per brands

TBRs	Barna	cBrav	cDaur	pyren	cBarc	pBarc
Food and Wine	0.796%	0.430%	0.342%	0.405%	1.583%	0.457%
Intangible Heritage	0.118%	0.025%	0.220%	2.080%	0.097%	0.019%
Leisure and recreational activities	0.739%	1.034%	2.612%	0.215%	1.371%	0.425%
Nature and active tourism	0.266%	0.748%	0.145%	3.225%	0.253%	1.886%
Sports	0.395%	0.098%	0.050%	0.150%	0.318%	0.026%
Sun, Sea, Sand	0.334%	2.287%	1.296%	0.190%	2.271%	0.094%
Tangible Heritage	4.908%	5.160%	0.911%	1.415%	1.589%	5.562%
Urban Environment	1.892%	1.104%	0.682%	0.870%	0.724%	1.356%

6 Concluding remarks

Destination image gaps seem to be a constant in both online and offline studies between official images and tourists' images, including the present study. However, this research contributes to this perspective differently. On the one hand, this study identifies destination image gaps in terms of territorial representation and perception, which had not been previously identified. Our results show that OTWs represent all territories more or less equally but tourists represent or perceive only very specific locations and regions, rendering most of the territory invisible in UGC and showing a great territorial disequilibrium in perceived image. On the other hand, in terms of attraction factors this research finds that image congruency may be different at different geographical levels as it identifies that the distribution of attraction in images is highly congruent between UGC and OTWs on a general level, but not at sub-regional level. Significant image gaps are observed in some sub-regional brands, especially as tourists reinforce leisure and intangible heritage aspects that OTWs do not emphasize.

This indicates that image gaps should be studied carefully at different geographical levels to obtain an idea of the general picture, and that general image congruency does not mean that this image is congruent at all geographical levels or that the intensity of place brand representation is similarly distributed in official and tourist images. This aspect reinforces the idea of Crompton (1979) to combine general marketing strategies with specific regional strategies and emphasizes that regional DMOs should also address the issue of territorial perception distribution which may affect tourist flows to the different regions. Therefore, ever more complex destinations with multiple administrations and brand architecture strategies should study the concept of gap bridging (Govers, 2010) within and across several geographical levels in the online domain.

This idea is crucial as image gaps are increasingly important for DMOs since, on the one hand, UGC images are highly influential on other users (Leung et al., 2013; Litvin et al., 2008) and, at least in this case study, are far more visible and popular than OTWs as the webometrics indicate, and therefore have a greater capacity to

disseminate their image. This poses an enormous challenge to destination managers who should consider it carefully and should adopt measures to regularly analyse and address it. In this respect, the method used in this study proved to be useful to analyse massive quantities of online information by using comparable categories that were applied at different geographical brand levels, and could be helpful for destinations to regularly analyse destination image gaps at different levels or assess specific marketing campaigns.

Limitations to this study are that data were analysed in a specific period of time and on specific geographical levels. Future research could consider the keywords in the context of the sentence in which they appear. More research could also show an overview of congruence between projected image in OTWs and perceived image in TBRs using a statistical test in which the density and weight of the keyword categories are compared.

References

Andreu, L., Bigne, J. E., & Cooper, C. (2001). Projected and Perceived Image of Spain as a Tourist Destination for British Travellers. *Journal of Travel & Tourism Marketing*, 9(4), 47-67

Anton Clavé, S. (2010). Identity and tourism. Between image and perception. *Paradigmes*, 5, 156-165

Bandyopadhyay, R. & Morais, D. (2005) Representative dissonance: India's Self and Western image. *Annals of Tourism Research*, 32(4), 1006–1021

Banyai, M. & Glover, T. D. (2012). Evaluating Research Methods on Travel Blogs. *Journal of Travel Research*, 51(3), 267-277.

Bastida, U, Huan, T.C. (2014). Performance evaluation of tourism websites' information quality of four global destination brands: Beijing, Hong Kong, Shanghai, and Taipei. Journal of Business Research 67, 167–170

Chen, H.J., Yung, C.Y., Wang, M.H. (2008). Perception gaps between tourist blogs and travel information on destination image. *26th EuroCHRIE Conference*, Oct. 12-14, Dubai

Chen, Y. & Lin, C. (2012). Technology Acceptance Analysis of Local Government Tourism Website. African Journal of Business Management, 6(49), 11891-11895

Choi, S., Lehto, X. & Morrison, A. (2007). Destination image representation on the web: Content analysis of Macau travel related websites. *Tourism Management, 28*(1), 118-129.

Crompton, J. L. (1979). An assessment of the image of the Mexico as a vacation destination and the influence of geographical location upon the image', *Journal of Travel Research*, 17(4), 18-23

Dinnie, K. (2008). *Nation branding: concepts, issues, practice*. Oxford, UK: Butterworth-Heinemann

Dragova, S., Petrovskaya, K. & Egger, R. (2014). Measuring the Perceived Image of Lithuania Through its Destination Management Organization Website. In Z. Xiang and I. Tussyadiah (eds.), Information and Communication Technologies in Tourism 2014,

Eurobarometer (2015). *Flash Eurobarometer 414: Preferences of Europeans towards tourism*. European Commission, Brussels, Belgium.

Fernández-Cavia, J & Huertas-Roig, A. (2009). City brands and their communication through Web sites: Identification of problems and proposals for Improvement. In M. Gasco-Hernandez, T. Torres-Coronas (eds). Information communication technologies and city marketing: Digital opportunities for cities around the world (pp. 26-49) Hershey, EEUU: Idea Group Inc.

Fernández-Cavia, J., Rovira, C., Díaz-Luque, P. & Cavaller, C. (2014). Web Quality Index (WQI) for official tourist destination websites. Proposal for an assessment System. Tourism Management Perspectives 9 (2014) 5–13

Gartner, W. C. (1994). Image Formation Process. *Journal of Travel and Tourism Marketing*, 2(2-3), 191–216

Govers, R., Go, F. M., & Kumar, K. (2007a). Virtual destination image: A new measurement approach. *Annals of Tourism Research*, 34(4), 977–997

Govers, R. (2010). Destination eBrands. *The 17th International Conference on Information Technology and Travel & Tourism*. Lugano: ENTER 2010

Kim, S. & Lehto, X.Y., (2013). Projected and Perceived Destination Brand Personalities: The Case of South Korea. Journal of Travel Research. 52(1) 117–130.

Krizman, D. & Belullo, A., (2007). Internet - An agent of Tourism destination image formation: Content and correspondence analysis of Istria travel related websites. *4th International Conference: Global Challenges for Competitiveness: Business and Government Perspective* (pp.541-556). Pula: Juraj Dobrila University of Pula, Department of Economics and Tourism

Lepp, A., Gibson, H. & Lane, C. (2011). Image and perceived risk: A study of Uganda and its official tourism website. Tourism Management 32 (2011) 675-684

Leung, D., Law, R., van Hoof, H., & Buhalis, D. (2013). Social media in tourism and hospitality: A literature review. Journal of Travel & Tourism Marketing, 30(1–2), 3–22.

Litvin, S. W., Goldsmith, R. E., & Pan, B. (2008). Electronic word-of-mouth in hospitality and tourism management. Tourism Management, 29(3), 458–468.

Mackay, K., J. & Fesenmaier, D., R. (1997). Pictorial element of destination in image formation. Annals of Tourism Research, 24(3), 537–565

Marine-Roig, E. (2014). A webometric analysis of travel blogs and reviews hosting: the case of Catalonia. *Journal of Travel & Tourism Marketing, 31*(3), 381-396.

Marine-Roig, E. (2015). Identity and authenticity in destination image construction - *Anatolia - An International Journal of Tourism and Hospitality Research* (in press), 1-14.

Marine-Roig, E. & Anton Clavé, S. (2015). A method for analysing large-scale UGC data for tourism: Application to the case of Catalonia. In: I. Tussyadiah, & A. Inversini (Eds.), *Information and communication technologies in tourism* (pp. 3-17). Cham, Switzerland: Springer.

Mercille, J. (2005). Media effects on image: The case of Tibet. *Annals of Tourism Research*, 32(4), 1039–1055

Nilawati, A.R., Dewi, A., Pratama, A., Adlina, D. Mukarrohmah, N. (2012). Interface on Usability Testing Indonesia Official Tourism. Website International Journal of Human Computer Interaction (IJHCI), 3, 2

Perry, M. (1978). Comparison of tourist destinations image as perceived by travellers and travel agents. *Journal of the School of Business Administration, 1*(3)

Pai, C., Xia, M.L., Wang, T. (2014). A comparison of the official tourism website of five east tourism destinations. Information Technology Tourism (2014) 14:97–117

Pike, S. (2002). Destination image analysis - a review of 142 papers from 1973 to 2000. *Tourism Management, 23*, 541-549.

Pitt, L., Campbell, C., Berthon, P., Nel, D., & Loria, K. (2008). Measuring tourism website communication out of Central America. In D. Spanjaard, S. Denize, & N. Sharma (eds.). *ANZMAC 2008: Marketing: shifting the focus from mainstream to offbeat* (1-6). Sidney, N. S. W.

Rodríguez-Molina, M.A., Frías-Jamilena, D.M.,. Castañeda-García, J.A. (2015). The contribution of website design to the generation of tourist destination image: The moderating effect of involvement. Tourism Management 47, 303-317

Schmallegger, D., & Carson, D. (2010). Destination image projection on consumer generated content websites (CGC): A case study of the Flinders Ranges. Journal of Information Technology & Tourism, 11(2), 111–127.

Stepchenkova, S. & Mills, J.E. (2010). Destination image: A meta-analysis of 2000-2007 research. *Journal of Hospitality Marketing & Management, 19*(6), 575-609.
Zhang, H., Fu, X., Cai, L. A., & Lu, L. (2014). Destination image and tourist loyalty: A meta-analysis. *Tourism Management, 40*, 213-223.