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EXPLORING TRAVEL SELFIES: THE CASE OF BARCELONA

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ABSTRACT
This paper aims to explore the relationship between characteristics of selfie-takers and the destination image depicted in the background of the photographs. Through a content analysis based on a sample of 1,537 selfies taken in Barcelona's most visited places and shared on Instagram, the authors were able to identify the most relevant elements and tourist scenarios involved in these photographs, as well as the relationship that exists among certain features of the profile of selfie-takers. The study reveals that travel selfies are a viable tool, which contributes to destination image and is aligned with the image destination management organizations promote.

KEYWORDS
Selfies; Photography; Destination image; Social networks; Instagram.

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Z39; M30
1. INTRODUCTION

Nowadays, photography is a prominent channel of tourism communication due to technological advances and the emergence of social networks such as Facebook, Instagram, Pinterest, or YouTube (Bakhshi, Shamma & Gilbert, 2014). Innovations in mobile devices and photography equipment, together with social media sites in the tourist market, have contributed considerably to the consolidation of this new visual trend. Publication and dissemination of online content is now based on both fixed pictures (photos, travel guides, etc.), and motion pictures (videos, films, etc.), making it a driving force for the tourism industry and a key tool for promoting destination image (González & Quadrini, 2015).

Current trends in communications based on content creation by Internet users, also known as User-Generated Content, have motivated individuals to share their travel experiences online with others by posting images and opinions on social networks. This content reflects tourists’ perceptions of places, and has thus become a reliable word-of-mouth communication tool (Masip, Camprubí & Coromina, 2018). This has led tourists and travellers towards a new culture of information and travel planning in which information shared by users is often more credible than the content published by Destination Marketing Organisations themselves (Revilla, Santana & Parra, 2016).

In this context, a new type of photography known as ‘selfies’, has been developed around the world. The academic literature defines a selfie as “a photograph of the self, typically taken with a smartphone or digital camera” (Gannon & Prothero, 2016). Google reported in mid-2019 that its Android devices take 93 million selfies per day (Contentworkds, 2020). The phenomenon of the selfie has expanded rapidly thanks to the large number of digital platforms and mobile devices currently available, and which enables people to share and consume a large amount of information in real time and space (Lim, 2016). In this regard, companies and destination marketers have started to see selfies as promotional tools (Lim, 2016; Hartmann, Heitmann, Schamp, & Netzer, 2021). In particular, pictures posted by DMOs have been shown to have a positive impact on trust reputation, branding, diffusion, and engagement (Tamaki, 2021). The ultimate
goal of these strategies is to achieve the desired positioning of the tourism destination and influence the tourists’ decision-making process.

Previous research on selfies (Kedzio & Allen, 2016; Rokka & Canniford, 2016) have mostly focused on analysing selfie-taking from a psychological and social perspective. Nevertheless, it is still a relatively new subject of study (Lim, 2016), especially in the tourism field, where research turns around the same psychological focus (Canavan, 2017; Lim, 2016; Taylor, 2020). The majority of studies focus on the behaviour of selfie-takers, associating them with personality traits, narcissism, and unsustainable practices. However, the literature in this field has yet to focus on the scenarios and backgrounds depicted in selfies. This is particularly relevant for tourism destinations who are considering the promotional implications of these types of pictures. Thus, this paper aims to analyse travel selfies as a particular travel photography, and to explore the relationship between characteristics of selfie-takers and the destination image depicted in the background of the photographs. The study contributes to the literature in the tourism field by expanding knowledge on this trending topic.

The paper is organised as follows: in the first section, a literature review focuses on the main issues related to travel photography, ICT technologies and selfies. Section two outlines the methodology employed to carry out the study, followed by the research results. Finally, the main outcomes and managerial implications of travel selfies for a destination’s image are discussed.

2. LITERATURE REVIEW

2.1) PHOTOGRAPHY AND TOURISM

Since the development of photography, 150 years ago, and the emergence of mass tourism some years later (Larsen, 2005), numerous studies have claimed there is an intrinsic relationship between photography and tourism (Sontag, 1977; Albers & James, 1988; Urry, 1990; Larsen, 2005; Garrod, 2009; Lo, McKercher, Lo, Cheung, & Law, 2011; Gál & Donaire, 2015).
In some ways, “to photograph is to appropriate the thing photographed” (Sontag, 1977: 4); it enables the ephemeral nature of the moment to be captured (Galí & Donaire, 2015), and evidence furnished (Sontag, 1977). Photographs are a way to represent reality; however, they have the capacity to freeze both time and space, and decontextualise and fragment the photographed element (Markwick, 2001). For Albers & James (1988), photographs not only capture and express what tourists see and how they see it, but also how they understand and recognise what they see. Therefore, “photography is the personal view of each individual, which is often seen as being stereotyped by images perceived previously” (Donaire, Camprubí & Galí, 2014, 27). Lo, et al. (2011) carried out a thorough literature review, concluding that photographs taken by travellers at a destination fulfil multiple roles in tourism: (a) from a basic perspective, photographs prove that a person was really there, and had an authentic and real travel experience; (b) photographs also play a symbolic role, by helping to build memories and transform them into stories; (c) photographs can turn an intangible experience into something tangible; and (d) they enable tourists to take ownership of their experiences, giving them the power to manage, structure and measure their experiences through their photographs.

In this regard, in one of his most cited works, Urry (1990) introduced the hermeneutic circle of representation to explain that tourists act not only as consumers of images, but also as producers of images to be consumed by other tourists in the future. This results in “a continuous reproduction and recirculation of photographic images – both iconic and everyday – that perpetuate the tourist image held by society” (Garrod, 2009, 347). The fact that individuals can photograph, and thus record and share their travel experiences through social networks, means that the tourist, at the same time as being on holiday, plays a crucial role in promoting and even creating destination image (Garrod, 2009). This new paradigm reaffirms the idea of a “society of spectacles” (Debord, 1992), where “circulating and instantaneous images overpower reality, [which] becomes touristic, ready for visual consumption” (Urry & Larsen, 2011, 178).

2.2) TRAVEL PHOTOGRAPHY AND WEB 2.0 TECHNOLOGY
Dale Dougherty, vice president of O'Reilly Media in 2004, coined the term Web 2.0, which brought a new digital era. This evolved from traditional platforms and moved towards web applications focused on User-Generated Content, known as social media (O'Reilly, 2009). With these developments, social networks such as Facebook, Instagram, Flickr and Twitter emerged, allowing users to take a more active role in the market by interacting and sharing content or experiences with the public much more directly and rapidly, unlike traditional media (Hennig-Thurau et al., 2010). According to Lister (2011), this evolution means “photography has become part of the information economy”, where pictures taken with mobile phones or with digital or professional cameras for specific jobs, become information to be communicated. Given the expansion of social networks, the fact it is inexpensive, and variety of different devices (mobile phones, tablets, etc.) available, this has generated a notable increase in the number of photographs that users take daily (Gogoi, 2014).

The continuous development of Information and Communication Technologies (ICTs) is leading to significant changes in tourist behaviour when it comes to taking pictures of destinations, and also how their pictures are shared with other people (Prideaux, Yee-Sum Lee, & Tsang, 2018). In this regard, Donaire et al. (2014, 32) concludes that “the digital photo has transformed tourists’ photography habits”, particularly in three ways: firstly, tourists become less selective and there is a clear increase in the number of shots taken; secondly, images have adopted a social function, as they are frequently shared on social networks; and thirdly, the digital age has probably reduced the hermeneutic circle of images in that the distance between the perceived image and the emitted image is increasingly shorter. Therefore, the tourism industry is becoming increasingly dependent on the technological world (Ghandour & Bakalova, 2014), as tourists rely more and more on mobile devices to complete their tourist experience when they are travelling.

2.3) THE SELFIE PHENOMENON

The wide range of audio-visual products broadcast demonstrates the scope and impact of ICTs in consumer habits, knowledge management, and even on interpersonal and collective relationships (Canga, 2015). This has fostered “selfie” taking; a well-known
practice that has attracted many people in recent years. According to Canga (2015: 384), a selfie is "a type of self-portrait that has been extended by social networks as a form of personal presentation through tools such as mobile phones and other technological devices". Proclaimed "word of the year" in 2013 by editors of the Oxford Dictionary (Canga, 2015), selfies have become a worldwide phenomenon, becoming a ritualistic and routinized practice among tourists (Lo & McKercher, 2015).

The novelty of this phenomenon has caught the interest of academics in various disciplines within the field of social sciences. From the point of view of psychology, several authors have sought a relationship between the personality of the individual regarding selfie-taking, usually associating this practice with narcissistic behaviour (Lim, 2016). From the marketing perspective, the term ‘brand selfies’ has emerged, a term which is related to the activity of taking selfies together with a branded product or service, and which also usually refers to the brand the person uses (Presi, Maehle & Kleppe, 2016). Other marketing studies have focused on areas such as examining the level of involvement, and the impact, selfies have as marketing tools in social networks; or the human factor selfies bring to a brand, as well as other more general marketing strategies. In order to generate positive feelings in the consumer's mind that lead to greater brand loyalty (Bakhshi et al., 2014; Kedzio & Allen, 2016). Within the tourism field, most studies are related to the psychological aspect of tourists taking selfies. For example, Paris and Pietschni (2015) explored links between behavioural and attitudinal aspects of travel selfies and personality traits, concluding that there is a positive relationship between emotions and self-presentation behaviours in online social networks. Taylor (2020) also focused on psychological issues, and studied travel selfies from the point of view of narcissistic behaviour in selfie-takers. His findings pointed out that selfies provoke envy in others; therefore, sharing photos related to trips taken shows superiority and helps individuals cope with their feelings of inadequacy. Using a different perspective, Dinhopel and Gretzel (2016) based their analysis on the theory developed by Urry (1990), which states that instead of wanting to capture the extraordinary in the tourist destination, tourists seek to capture the extraordinary within themselves at the destination, thus taking relative importance away from tourist attractions. Other studies point out the negative effects this practice can have on destinations in terms of sustainability (Flaherty & Choi, 2015;
Canavan, 2017). Nevertheless, no previous research in this field has studied the features of scenarios depicted in the background of travel selfies as being an influencing factor in destination image. Therefore, this paper aims to analyse travel selfies backgrounds, and explore possible relationships that may exist between selfie scenarios and particular characteristics of the selfie-taker.

3. METHODOLOGY

3.1) STUDY SITE

Barcelona (Spain) was taken as a study site to analyse travel selfies. Barcelona is a recognised, mature tourism destination, and received near to 9.5 million tourists in 2019 (Observatori del Turisme a Barcelona, 2020). The city has a large diversity of tourism products including culture, gastronomy and leisure, nine UNESCO World Heritage buildings, as well as museums, exhibition centres and a rich tangible and intangible heritage. This makes Barcelona valuable as a cultural tourism destination, and currently one of the most competitive European and international tourist destinations (European Cities Marketing, 2017).

3.2) SAMPLING

Instagram was chosen as the source for this study as it is considered one of the most popular social networks for users and tourists to share pictures (Gretzel, 2017), and considered “the epicentre of the selfie revolution, with more than 295 million posts tagged with #selfie to date” (Lim, 2016: 1777). Recent studies on travel selfies have used Instagram (Barbour, Lee, & Moore, 2017; Masip et al., 2018; Wijesinghe, Mura, & Tavakoli, 2020), arguing that it simplifies data collection and provides more information for similar studies than other social networks (Rokka & Canniford, 2016).

A list of 24 hashtags with the names of the top 10 most visited places in Barcelona were used to gather data. According to the 2019 Annual Tourism Report (Observatori del Turisme a Barcelona, 2020) the top attractions are Sagrada Familia, Park Güell, FC
Museum Barcelona, Aquarium, The Born Cultural Centre, Spanish Town, La Pedrera, Casa Batlló, Barcelona Zoo, and Picasso Museum Barcelona (Table 1). Following previous studies (Barbour, et al. 2017; Masip et al., 2018), the Websta Instagram Analytics platform was used to gather information from Instagram. This platform allows getting access to the pictures shared in Instagram by date of publication. A systematic, random sample of 1,537 travel selfies were gathered (95% confidence level; 2.5% margin of error), between January to April 2017. At the moment to collect data, no discrimination parameters by age, gender or origin of selfie-takers were applied.

| Tourist attractions                  | Number of visitors in 2019* | Hashtags                                                                 | Number of posts on Instagram |
|--------------------------------------|-----------------------------|--------------------------------------------------------------------------|-----------------------------|
| Sagrada Familia                      | 4,717,796                   | #basilicasagradafamilia; #sagradafamiliaebarcelona                      | 12,102                      |
| Park Güell                           | 3,154,349                   | #parkgueill; #parkgueillbarcelona; #parcgüell; #parcguell                | 461,971                     |
| FC Museum Barcelona                  | 1,661,156                   | #museufcbarcelona; #museudelbarça; #barcamuseum; #museufcb               | 745                         |
| Barcelona Aquarium                   | 1,609,373                   | #acuariobarcelona; #aquariumbarcelona                                    | 4,999                       |
| The Born Cultural Centre             | 1,161,755                   | #elborncc; #elbornccm                                                    | 2,885                       |
| Spanish Town                         | 1,239,388                   | #puebloespañol; #pobleespanyol; #pobleespanyoldebarcelona               | 32,634                      |
| La Pedrera                           | 1,080,519                   | #lapedrera                                                               | 127,718                     |
| Casa Batlló                          | 1,065,222                   | #casabatllito; #casabatllò                                               | 241,561                     |
| Barcelona Zoo                        | 722,029                     | #zoobarcelona; #zoodebarcelona                                           | 15,004                      |
| Picasso Museum                       | 1,072,887                   | #museopicassobarcelona; #museupicassobarcelona                           | 540                         |
| Total no. of tourists                | 9,472,562                   | Total no. of posts                                                      | 900,159                     |

Table 1. Ranking of the top 10 most visited places in Barcelona, with hashtags analysed.
Source: * Observatori del Turisme a Barcelona (2020).

3.3) DATA COLLECTION

A content analysis was carried out to define characteristics of travel selfies posted on Instagram. This research method, one of the most used in the social sciences to study photographs and images (Albers & James, 1988), is an observational method based on a systematic and objective analysis of communication symbols in very different contexts.
(Kolbe & Burnett, 1991). Following Kassarjian (1977), both authors were involved in the codification process in order to guarantee objectivity and reliability, and strict rules were established. When discrepancies were found, the matter was discussed until an agreement was reached.

Three different variables were used to analyse the background in travel selfies: scenario; human presence; and zoom (Table 2), based on previous research. Firstly, scenarios were classified in five categories following previous research in this area (Garrod, 2009; Donaire, et al., 2014; Stepchenkova, et al., 2015): natural heritage; cultural and architectural heritage; urban landscapes; traditions; and leisure activities. Secondly, the degree of human presence in the selfie was also explored, as in other similar studies (Donaire, et al., 2014; Stepchenkova, et al., 2015). The aim was to know whether selfies are taken with random people, a crowd, or without any people in the background. Thirdly, the zoom or camera focus of travel selfies was also considered. People have different ways to focus certain elements and scenarios according to what they want to highlight in the picture. Based on Donaire et al., (2014), four categories were used to identify how these scenarios were captured: 1) whether selfie-taker prefers to take a fragment of a building or natural landscape; or 2) prefers to focus on the element itself (e.g. the historical building); 3) whether the element is photographed in its context (e.g. the historical building and the surroundings); or 4) a decontextualised space is depicted (e.g. panoramic view).

In order to identify the profile and behaviour of selfie-takers, three more variables were established (Table 2). Previous research on this topic (Dinhopl & Gretzel, 2016; Paris & Pietschni, 2015; Taylor, 2020) collected information on gender and age. In this study, observation of the physical features in self-portraits was used to gather information about gender and age of selfie-takers. The third item focuses on the type of group depicted (Sorokowski et al., 2015), whether selfies are individual or in-group.
3.4) DATA ANALYSIS

Data were explored using SPSS 21 software and tables of frequencies for each variable were done, in order to determine selfie-takers’ profiles and the most salient elements of tourist image in travel selfies. Bivariate statistical analyses were carried out in order to determine relationship between variables included in the study. In particular, associations between tourist scenarios and selfie-takers’ profiles were explored in order to determine whether selfie-takers’ profiles and destination image depicted in the background of the selfies are related. Considering the categorical nature of variables included in the analysis, $\chi^2$ test was performed, and Cramer’s V was computed in order to identify the strength of the relationship.

4. RESULTS

4.1) THE MOST PHOTOGRAPHED ELEMENTS

An analysis of backgrounds in the travel selfies’ revealed that the most photographed attractions posted on Instagram, Park Güell (51.32%), followed by Casa Batlló (26.87%), and La Pedrera (14.18%) (Table 3). All these three nodes were designed by Antoni Gaudí,
the well-known Catalan architect. By category (Table 4), cultural and architectural heritage (52.37%) is the most photographed category, followed by scenarios related to the natural heritage (17.05%), and urban landscapes (13.86%). Traditions (11.32%) and leisure activities (5.40%), played a secondary role.

| Tourist attraction                          | % of selfies |
|--------------------------------------------|--------------|
| Park Güell                                 | 51.32%       |
| Casa Batlló                                 | 26.87%       |
| La Pedrera                                  | 14.18%       |
| Spanish Town                               | 3.63%        |
| Barcelona Zoo                              | 1.63%        |
| Temple of the Sagrada Familia              | 1.37%        |
| Barcelona Aquarium                         | 0.56%        |
| The Born Cultural Centre                   | 0.33%        |
| Picasso Museum Barcelona                   | 0.07%        |
| FC Museum Barcelona                        | 0.07%        |
| Total                                      | 100%         |

Table 3. Percentage of photographed tourist attractions.

| Categories                      | %          |
|---------------------------------|------------|
| Scenarios                       |            |
| Cultural and architectural heritage | 52.37%    |
| Natural Heritage                | 17.05%     |
| Urban landscapes and surroundings | 13.86%    |
| Traditions                      | 11.32%     |
| Leisure Activities              | 5.40%      |
| Total                           | 100%       |
| Human presence                  |            |
| Selfies with no people around   | 48.21%     |
| Selfies with random people around | 33.44%   |
| Selfies with a crowd            | 18.35%     |
| Total                           | 100%       |
| Zoom                            |            |
| Fragment                        | 54.52%     |
| Decontextualized spaces         | 27.26%     |
| Element in context              | 10.41%     |
| Element                         | 7.81%      |
| Total                           | 100%       |

Table 4. Background categories and subcategories.

A comparison was drawn between the most photographed tourist nodes in travel selfies shared on Instagram, and the scenarios captured in the pictures (Table 5). A positive
relationship was found between both variables (Cramer's \( V = 0.309; p < 0.000 \)), showing that the scenario they want to depict in the picture depend on the tourist attraction chosen by selfie-takers (e.g. cultural and architectural heritage, traditions, etc.).

\[ \chi^2 = 938.839; \text{Cramer's} \ V = 0.396; \ p < 0.000. \]

Table 5. Tourist attractions by scenarios in travel selfies.

| TOURIST ATTRACTIONS     | Cultural and architectural heritage | Natural heritage | Urban landscape and surroundings | Traditions | Leisure activities | Total |
|------------------------|-------------------------------------|------------------|----------------------------------|------------|-------------------|-------|
| Park Güell             | 45.4%                               | 29.5%            | 21.7%                            | 0.3%       | 3.2%              | 100.0%|
| Casa Batlló            | 53.8%                               | 0.2%             | 1.5%                             | 40.9%      | 3.6%              | 100.0%|
| La Pedrera             | 83.9%                               | 0.0%             | 9.7%                             | 0.0%       | 6.5%              | 100.0%|
| Pueblo Español         | 30.4%                               | 7.1%             | 17.9%                            | 5.4%       | 39.3%             | 100.0%|
| Barcelona Zoo          | 0.00%                               | 76.0%            | 12.0%                            | 0.00%      | 12.0%             | 100.0%|
| Total                  | 51.9%                               | 17.1%            | 14.1%                            | 11.6%      | 5.3%              | 100.0%|

4.2) THE PRESENCE OF PEOPLE IN TRAVEL SELFIES

Regarding human presence in travel selfies (Table 4), results show that these photographs are mostly taken without people (48.21%). On the other hand, 33.44% are taken regardless of the presence of random people in the background, and only 18.35% of travel selfies are taken with a crowd in the background.

Moreover, when comparing the tourism scenarios involved in travel selfies with human presence, results show that four out of five categories of scenarios are commonly photographed without people (Cultural and Architectural Heritage: 45.7%, Natural Heritage: 62.6%, Urban Landscapes: 54.5%, and Leisure Activities: 49.4%). This is except for the scenario featuring traditional and festive elements of Barcelona, in this case selfies are taken despite the crowd (42%). This could be because people are considered part of the charm of the festivities and cultural traditions. From the results of the measures of association between these two variables (Cramer’s \( V = 0.281; p < 0.000 \)), it can be affirmed that the presence of people who appear in the photo is conditioned by tourist attractions photographed in travel selfies.
4.3) ZOOM OF BACKGROUND IN TRAVEL SELFIES

The use of a zoom in selfies was also considered a relevant feature for determining the main elements the selfie-taker chooses to highlight in the background of the picture (Table 4). Findings reveal that more than half of pictures depict a fragment of the tourist site photographed (54.52%). These pictures usually focus on a particular element of the site visited, for example in the case of the cathedral, the bell tower is depicted; or in the case of the Casa Batlló, one of the balconies. Results also show a significant statistical association between using a zoom and certain scenarios (Table 6) (Cramer’s V=0.461; p<0.000), and using a zoom with tourist attractions as well (Table 7) (Cramer’s V=0.257; p<0.000). For example, when pictures depict a cultural and architectural heritage scenario (70.8%) or traditions (89.7%), selfie-takers tend to photograph a fragment of it. In contrast, pictures that depict urban landscapes (88.7%) or natural heritage (56.1%) tend to show decontextualized spaces. Focusing on specific tourist attractions, selfie-takers tend to depict particular fragments of Casa Batlló (75.1%) or La Pedrera (64.4%); while in open spaces such as the Park Güell, there is a greater tendency to photograph decontextualized spaces (43.5%).

| ZOOM                  | Cultural and architectural heritage | Natural Heritage | Urban landscapes and surroundings | Traditions | Leisure Activities | Total     |
|-----------------------|------------------------------------|------------------|----------------------------------|------------|-------------------|-----------|
| Fragment              | 70.8%                              | 32.4%            | 8.0%                             | 89.7%      | 12.0%             | 54.5%     |
| Element               | 12.7%                              | 1.9%             | 0.0%                             | 5.2%       | 4.8%              | 7.8%      |
| Element in context    | 14.3%                              | 9.5%             | 3.3%                             | 4.6%       | 6.0%              | 10.4%     |
| Decontextualized spaces | 2.2%                               | 56.1%            | 88.7%                            | 0.6%       | 77.1%             | 27.3%     |
| Total                 | 100.0%                             | 100.0%           | 100.0%                           | 100.0%     | 100.0%            | 100.0%    |

χ²=979.875; Cramer’s V=0.461; p<0.000

Table 6. Zoom of background in travel selfies by scenarios.
4.4) PROFILE OF THE SELFIE-TAKERS

A further aspect considered in this analysis is the profile of selfie-takers (Table 8). Regarding the age of selfie-takers, results show that this type of photographers are mostly adults (51.14%), this is followed by young people (46.32%), and seniors (2.54%). Regarding gender, 58.23% are women and 41.77% are men.

Findings also reveal a predominance of group selfies (62.7%) in the most visited places in Barcelona, and only 37.28% prefer to take and post individual selfies in Instagram. These results show that within a tourism context, traditional selfies of oneself (one person) are no longer a tendency, and selfies featuring more than two people are becoming more common in travel selfies.

Table 8. Profile of selfie-takers.
4.5) RELATIONSHIP BETWEEN THE TOURIST SCENARIO AND THE PROFILE OF THE SELFIE-TAKERS

A second purpose of this study was to determine whether specific characteristics of selfie-takers influence the destination image portrayed on social networks and vice-versa. In this section, profile variables are analysed to determine its relationship with variables related to the tourism context depicted in pictures (Table 9).

Firstly, regarding the gender of selfie-takers, no statistical differences were found considering variables used to analyse background of travel selfies. Secondly, focusing on the age of selfie-takers (Table 9), adults usually prefer to take selfies related to the cultural and architectural heritage of Barcelona, as well as natural heritage, traditions, and leisure activities. On the other hand, young people, to a large extent, prefer photographing scenarios where the urban landscape of the city stands out. Significant statistical association was recorded (Cramer's V=0.130; p<0.001) and, therefore, it is possible to affirm that the tourist scenario chosen by selfie-takers is conditioned by their age to an extent. Additionally, regarding tourist nodes and the age of selfie-takers (Table 9), it can be asserted that a higher percentage of young people (57.7%) and adults (49.2%) take selfies in Park Güell than seniors. However, seniors prefer to take selfies at Casa Batlló (44.7%) and La Pedrera (51.1%), more than young people or adults (Cramer's V=0.124; p<0.003).

| BACKGROUND CATEGORIES | Young | Adults | Seniors | Total |
|-----------------------|-------|--------|---------|-------|
| **Types of scenarios** |       |        |         |       |
| Cultural and architectural heritage | 50.4% | 53.3% | 69.2% | 52.4% |
| Natural heritage      | 18.1% | 16.9% | -      | 17.0% |
| Urban landscapes and surroundings | 16.4% | 12.1% | 2.6% | 13.9% |
| Traditions            | 9.6%  | 12.3% | 23.1% | 11.3% |
| Leisure activities    | 5.5%  | 5.3%  | 5.1%  | 5.4%  |
| Total                 | 100.0% | 100.0% | 100.0% | 100.0% |
| **Tourist nodes**     |       |        |         |       |
| Park Güell            | 57.7% | 49.2% | 28.9% | 52.6% |
| Casa Batlló           | 24.1% | 29.8% | 44.7% | 27.5% |
| La Pedrera            | 12.9% | 15.6% | 21.1% | 14.5% |
| Pueblo Español        | 3.3%  | 4.2%  | 2.6%  | 3.7%  |
| Barcelona Zoo         | 2.0%  | 1.3%  | 2.6%  | 1.7%  |
The relationship between the most photographed elements by tourist attractions and types of selfies taken was also analysed (Table 10). Results showed a positive statistical association (Cramer's $V=0.146$; p-value=0.000), and that people prefer to take group selfies instead of individual selfies in tourist attractions such as Casa Batlló, the Spanish Village (Pueblo Español) and Barcelona's Zoo. Nevertheless, there is a greater interest in taking individual selfies in La Pedrera than group selfies. In the case of Park Güell there are no differences.

Table 10. Tourist attractions by types of selfies.

| TOURIST ATTRACTIONS | TYPE OF SELFIES | Total |
|---------------------|----------------|-------|
|                     | Group selfie   | Individual selfie | |
| Park Güell          | 52.7%          | 52.4%          | 52.6% |
| Casa Batlló         | 29.5%          | 24.2%          | 27.5% |
| La Pedrera          | 11.5%          | 19.5%          | 14.5% |
| Pueblo Español      | 4.3%           | 2.7%           | 3.7%  |
| Barcelona Zoo       | 2.0%           | 1.1%           | 1.7%  |
| Total               | 100.0%         | 100.0%         | 100.0%|

$\chi^2=32.140$; Cramer's $V=0.146$; p=0.000.

5. CONCLUSIONS

Taking Barcelona as case study, this research explores an understudied facet of travel selfies, including how specific characteristics of selfie-takers are related to the destination image depicted. The study has identified representative tourist attractions and the most common types of scenarios which appear in travel selfies. Moreover, the study has uncovered the most common features of a selfie-taker's profile and behaviour through analysing how the selfie-taker looks like in the self-portrait. This has already been widely studied by several authors in different contexts (Paris & Pietschni, 2015; Lim, 2016; Dinhopl & Gretzel, 2016, Taylor, 2020). Nevertheless, this study takes this further and
contributes to academic literature, by making a connection between tourist scenarios and the selfie-taker’s profile, which has not been studied previously, and providing a deeper understanding of how destination’s tourist image is formed and disseminated through selfies posted on social media.

In particular, findings reveal that there is a congruence between the most photographed elements in travel selfies and the most visited places in the city. Barcelona is well-known for its wealth of culture and architecture. This is reflected in the fact that scenarios often appearing in these selfies come from three main tourist nodes in the city: Park Güell, Casa Batlló, and La Pedrera, all designed by Gaudí. Moreover, it is concluded that selfies taken with a zoom clearly differ from those taken in general travel photography, where tourists prefer to capture the tourist attraction or building by itself, or in context (Donaire et al., 2014). Donaire & Galí (2011) found that tourists usually used a panoramic zoom in pictures of Barcelona shared in Flickr. Selfie scenarios are mostly shown through fragments, in both group and individual selfies in order to narrate a personal story, or experience. Similar to the work of Dinhopl & Gretzel (2016), which reconceptualises the tourist gaze focusing on selfies. Findings in this study corroborate that the tourism scenario photographed depends on how accessible it is, and if the background fits on the story that the person wants to share through social networks.

Findings also revealed a preference for taking pictures without people, especially in environments related to culture, natural heritage, urban landscape, and leisure activities. This shows the importance of capturing the essence of these nodes and tourist spaces, and therefore, their personal experience and connection with these places. These findings concur with previous studies related to travel photography (Donaire et al., 2014), in which it has even been stated that the absence of visitors in the pictures taken at a particular destination is related to "the willingness to show the elements as if they were pieces of a museum suitable for individual consumption" (Galí, 2005, 276). Stepchenkova et al. (2015) found that Korean people took more pictures with people in them than Americans did, and concluded that photographic behaviour depends on an individual’s cultural background. This issue has not been explored in this study; therefore, future research should examine whether cultural differences exist when taking selfies.
Regarding the selfie-takers profile, there is a significant tendency towards group selfies of two or more people, rather than selfies taken of oneself (one person). Recent studies concur with this finding; however, other researches outside the tourism field who study psychological aspects differ in opinion (Sorokowski et al., 2015). They maintain that the most common selfies taken are of the individual, based on a link between narcissism and selfie-posting behaviour. Moreover, it has been found that those who prefer taking selfies in a tourist context are adults between 30 to 49 years old, with slightly more selfies taken by women than men (Sorokowski et al., 2015). However, studies by authors such as Gretzel (2017) argue that selfie-takers are young people, and popularity is increasing among teenagers. On the other hand, Sorokowski et al. (2015) mention the significant difference between women and men who take selfies, highlighting that women are the main consumers of this phenomenon, but men show a stronger relationship with narcissism and posting selfies. The findings of Sorokowski et al. (2015), together with the results of this study, illustrate the complexity of drawing general conclusions regarding the selfie-taker’s profile, as it could be associated with the environment where this type of photograph is commonly taken and shared online, along with individual characteristics of the selfie-taker, which are usually influenced by social, cognitive and psychological implications (Sorokowski et al., 2015).

Furthermore, while a number of empirical studies have investigated the relationship between a tourist’s personality and the act of taking selfies at a destination (Lim, 2016), this paper contributes to academic literature by exploring associations between tourist scenarios and the selfie-taker’s profile. This is characterised by factors such as age, which slightly conditions the scenario chosen. In the same way, the types of selfies people take at a destination are also a conditioning variable regarding the most photographed elements, by tourist node. Thus, based on these findings, evidence exists that those features that comprise the profile of a selfie-taker influences the destination image portrayed in these photographs, and then shared through social media; thus, a destination’s image is constantly being reconstructed.

This paper also reveals some practical implications. With the rise of selfie culture worldwide, and the fact that we can verify relevant components and tourist elements in this type of photography, the selfie can be seen as a key tool in developing and
consolidating a tourist destination image. Marketing promoters of DMOs should start to consider and promote this practice in tourism destinations, taking advantage of the exponential development of ICTs, which have converted visual content, such as selfies, in a phenomenon that is produced and consumed by tourists and visitors.

This study also reaffirms that the success of selfies lies in the fact that they expose people for what they are, making it credible and realistic. Selfies also show the products and services that a tourist attraction offers in a more authentic way, but mainly denoting a first-hand experience of a particular place (Kedzio & Allen, 2016). At the same time, these experiences transmit the new needs and behaviours of tourists in various tourist areas (Dinhopl & Gretzel, 2016). This much be paid attention to by stakeholders if they are interested in preserving the existing market and attracting new potential markets, and if they seek to gain a competitive advantage over other tourist destinations.

The main limitation of this study is that the sample of selfies was obtained from Instagram only; however, other digital media related to Web 2.0, such as blogs, virtual communities, forums, and other social networks such as Facebook, Twitter, etc. could be used in future research. Additionally, although this research took a quantitative approach, a qualitative approach based on semiology (Larsen, 2005) could also be used.

Moreover, a more tourism marketing approach can also be taken. Performance indicators could be analysed in order to measure the effectiveness of using selfies as promotional tools for a tourist destination. Factors such as the growth of the tourism market, audience engagement, followers, likes, comments on social media, brand positioning, could be analysed, as in previous studies outside the field of tourism (Rokka & Canniford, 2016).

There is no doubt that the phenomenon of selfie-taking is becoming an everyday practice worldwide (Dinhopl & Gretzel, 2016). It is a product of the digital era that has brought fundamental changes to communication and the scope of information, and it directly and indirectly influences the behaviour and experience of tourists at a destination (Camprubí, Guia & Comas, 2013). Therefore, considering the rapid change of social networks dynamics and the relevance of this type of pictures, further research is needed to update the results presented in this study.
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