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Chapter

Gen Y: Emotions and Functions of Smartphone Use for Tourist Purposes

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Abstract

Smartphones have revolutionized the tourism industry due to their ability to create and improve the tourist experience, mostly among young users, especially those belonging to the Generation Y (Gen Y). Millennials, as the Generation Y is often referred to, stand out for their ability to travel more frequently and for longer periods, as well as for their often-addictive use of smartphones. Despite nomophobia is not a recent phenomenon, there are few research works on information and communication technologies and tourism that address the effects of smartphone use on the tourist experience. The objective of this exploratory study is to describe the feelings Gen Y experiences as a result of use smartphones during their travels, their tourism functionality, and the relationship between the two. The study is based on the application of an online survey to a representative sample. The results confirm the problems associated with smartphone use, especially among young people (16–19) and the existence of a correlation between smartphone use for tourist purposes and a positive travel experience. It has confirmed that they experience negative feelings and emotions. The study presents crucial information that destination marketing organizations can use to successfully integrate smartphones into their digital marketing and communication strategies.

Keywords: generation Y, smartphone, nomophobia, tourism, tourist experience

1. Introduction

The Generation Y (Gen Y) is a segment of great interest to the business sector in general [1–3] and to the tourism sector, in particular, due to its leading role in the last decade as consumers, prosumers and adprosumers [2–5] and its importance to achieve the goals of destinations [5, 6]. As Richards [7] points out, Gen Y (as this generation is often referred to) is a market segment of great value to tourist destinations due to the economic potential and availability of its members to travel more frequently and for longer periods. The professional and academic fields have shown great interest in this generation, which is reflected in the recent publication of a remarkable number of research works, both general in scope [2, 3, 8–13] and specific to the tourism sector [5, 14–18] The latter sector is particularly interested in this generation's use of information and communication technologies (ICTs) for tourism purposes [19–24].

Within the diversity of ICTs, the boom and massive adoption of smartphones among Gen Y [20, 25–28] as well as the proven relevance of these mobile devices for the tourism sector highlight the need for more studies on this regard to contribute to the development of a still incipient and scarce line of research [18, 29–31]. Just like with any other ICTs, the integration of smartphones into the digital marketing and communication strategies of the tourism business should take into account the particularities of the different stakeholders of the destinations [5, 17, 18, 32–36] to ensure their use actually generates positive emotions and sensations [31, 37–39] that contribute to a different, original, and satisfying tourist experience [40–42].

2. Smartphones at the service of the tourist experience

Current trends have shown the need for tourist destinations to evolve into smart tourism destinations [43–46]. In this sense, the cost associated with the development of smart infrastructures (powerful transport networks, free Wi-Fi, etc.) should not be an obstacle for destinations with fewer resources [47, 48] because, as Huertas et al. [43] point out, there are other more affordable actions that serve the same purpose, such as proper integration and management of social networks and mobile apps.

Effectively, within the wide range of ICTs, smartphones have revolutionized the way tourists interact with the physical and digital worlds, and have become essential and highly valued tools [36, 49, 50] thanks to their capacity to shape and enhance the tourist experience [36, 42, 51, 52], which in turn can favor the promotion and dissemination of the destination by tourists themselves through word of mouth (WOM) and electronic word of mouth (eWOM) [53–59].

The use of smartphones for tourist purposes is nothing more than a reflection of the day-to-day of citizens, who use smartphones for everything (relationships, entertainment, etc.) [28]. As it happens with the use of other ICTs in the field of tourism, this technological dependence has psychological impacts that translate into negative and positive feelings [38, 60–63] that in turn shape the perception of the tourist experience [52, 64–67].

Based on the previous arguments, destination marketing organizations (DMOs) should consider the negative effects of smartphone use, particularly in relation to young users [68–71], who are often victims of related addictions and disorders such as nomophobia, i.e., the irrational fear of not being able to use the smartphone [72–74]. In this regard, it is worth noting the impact that the type of activities performed with smartphones and the context on which it is performed have on the greater or lesser degree of anxiety or stress caused by not being able to use the smartphone [71]. In this sense, in times of loneliness and boredom, for example, not being able to interact with other people, mainly through social networks, or to search for information or use entertainment apps, can trigger an acute case of nomophobia [68, 70, 71, 74]. These effects underline the importance that people, particularly the youngest sector of the population, attach to the main values of the web 2.0 model that have given smartphones their protagonist role: multidirectional communication and universal access to information [1, 10, 24, 25, 40].

Hence the need is to identify the main uses given to smartphones for tourist purposes according to different generations and the consequent ICTs use habits [36], which is one of the objectives of this study. This information is necessary to successfully integrate smartphones into the digital marketing and communication strategies of tourist destinations. Given the numerous advantages of the communication and experiential potential of these devices [44, 45, 75–79], DMOs cannot ignore the fact that their use can also generate negative emotions and feelings,

primarily among their younger stakeholders, including Gen Y [38, 60–63], and that these feelings will in turn affect their perception of the destination and the opinions they share about it. Just like positive feelings and emotions resulting from smartphone use shape the perceptions and experiences tourists share through WOM and eWOM, which favor the promotion and dissemination of the tourist destination [53–59] the negative ones can have the opposite effect.

Therefore, and given the relevance of Gen Y for tourism [80–82] and the impact of smartphone use on the tourist experience [31, 36, 44, 45, 51, 52, 75–79], this study aims to describe the feelings and emotions that the use of the smartphone and its tourism-related functionalities generates during travel on members of this generation and the correlation between these variables.

3. Research methodology

Since this study focuses on a subject matter on which there is little research, it will adopt an exploratory design [83], based on the conduction of an online survey questionnaire applied to a sample of Gen Y respondents, who in turn shared the questionnaire with their contacts. It is therefore a representative sample of the Gen Y, selected through the snowball sampling technique.

3.1 Sample

The sample consists of individuals who meet the following criteria: belong to the Gen Y, own a smartphone, and used it on their last tourist trip. The first section of the survey questionnaire consists of items that verify these criteria to be able to exclude non-suitable respondents and select the final sample.

The questionnaire design, in addition to relying on previous studies and research [31, 84, 85], was validated by two well-known academic and researchers in the tourism sector and by a prestigious company specialized in digital marketing. This ensured the academic and professional validation of the instrument. Following this first review and subsequent correction, the questionnaire was pilot tested on a convenience sample of 50 people who met the same requirements set for the final sample. Based on these results, further adjustments were made to the instrument. The final version of the survey questionnaire was distributed online during May and June 2020. A total of 201 questionnaires were answered and returned, but 10 of them were discarded because the respondents did not meet the sample selection criteria. A total of 191 valid questionnaires were analyzed to achieve the research objectives.

3.2 Measurements constructs

The survey is structured in three sections. The first one, as mentioned, aims to confirm whether respondents meet the sample selection criteria. It consists of three questions about respondents' age, smartphone ownership and smartphone use in latest trip. In addition, four more questions relating to gender, education level and country of residence were included for a better sociodemographic description of the final sample.

The next two sets consist of two and three closed-ended questions, respectively, that aim to gather quantitative data.

The first of these sets explores emotions and feelings based on the Positive and Negative Affect Schedule (PANAS) scale items [85] Respondents were asked to use a 3-point Likert scale to assess the positive or negative feelings they associated to their

smartphone use during the latest trip. Following the scale developed by Watson et al. [85], the list of positive feelings and emotions included in the questionnaire are: interested, distressed, excited, upset, strong, guilty, scared, hostile, enthusiastic and proud. On the other hand, the set of negative feelings and emotions included: irritable, alert, ashamed, inspired, nervous, determined, attentive, jittery, active and afraid. In the scale, which served to indicate to what extent the respondent had felt those feelings and emotions, 1 means "almost never"; 2, "sometimes"; and 3, "almost always". In this set, options 1 and 3 are nuanced because it is possible that specific circumstances unrelated to the tourist experience (receiving good news, losing internet connection, etc.) may translate into feelings and emotions that do not describe faithfully the respondent's state of mind regarding smartphone use during their trip.

Respondents' smartphone use for tourism purposes is examined in the last section using the scale developed by Tussyadiah and Zach [84], which focuses on a series of activities that are valued using a scale that ranges from "never" to "always." The questionnaire includes the following three activities: navigation, information search and learn about destination, similarly to Lalicic and Weismayer [31] but using a 3-point Likert scale.

4. Use of smartphones for tourist purposes: Feelings and emotions and functionalities

The age of the group of respondents (n = 191) ranges from 16 to 38, which fits the age range of Gen Y according to Strauss and Howe [86]. In terms of sex, 37% are male and 63% are female. All of them live in Spain, except for two respondents, from the USA and China, respectively. Regarding their education level, most of them are in high school (*55.5%*), a quarter are undergraduates (*26.18%*), and an important share are at middle school (*10.99%*). The rest are distributed between primary education (*0.52%*), middle vocational education (*2.09%*), higher vocational education (*4.19%*) and postgraduate education (*0.52%*). This group of respondents were considered valid because they confirmed they owned a smartphone and had used it in their latest tourist trip.

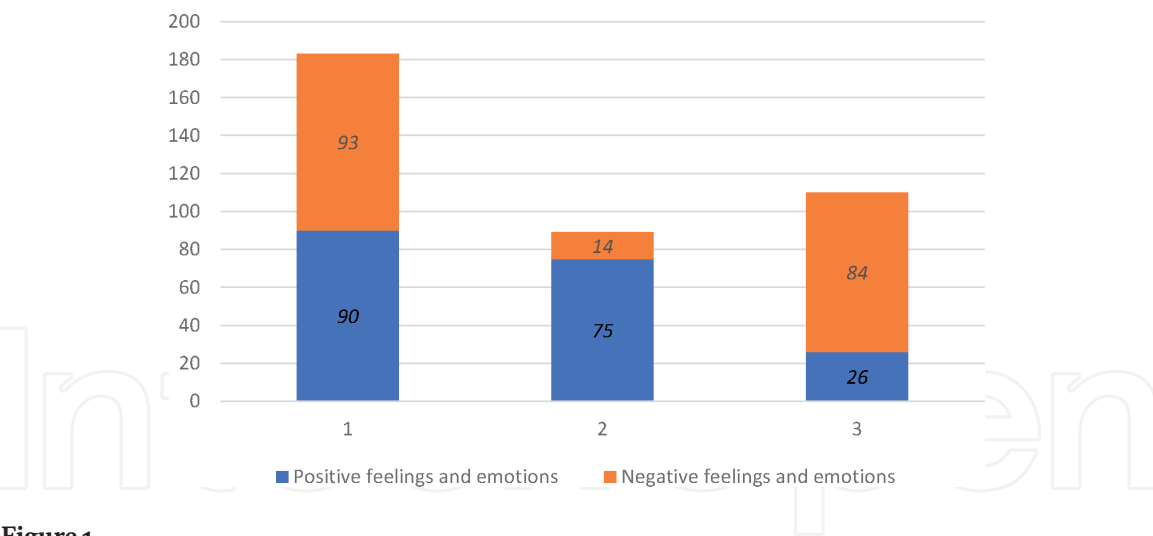### 4.1 Feelings and emotions associated with smartphone use during travel

Figure 1 presents the results regarding the feelings and emotions experienced by respondents when using their smartphone during travel.

As shown in **Figure 1**, surveyed Gen Y members (*m*) experience with greater frequency negative emotions and feelings (*84 m*). Only 26 people in the sample claimed that smartphone use during travel almost always caused positive emotions and feelings. Also striking is the high number of participants who stated they almost never experience neither positive nor negative emotions (*90 m* and *93 m*, respectively). Likewise, regarding the intermediate position (score 2), the bulk is placed in positive feelings and emotions (*75 m*).

Given the age amplitude of Gen Y, it is relevant to delve into the results on the feelings and emotions associated with smartphone use during travel, by focusing on the following three age segments: 16–19, 20–29 and 30–38 (**Figure 2**).

Negative emotions and feelings predominate in the 16–19 age group, since 93.83% of respondents in it selected the highest score for this type of feelings and emotions. Positive feelings and emotions are concentrated in the 20–29 age group. The intermediate score, "sometimes" (2), has been selected mostly for positive feelings by the youngest and oldest segments (*66.67%* and *50%*, respectively) of

Figure 1.
Feelings and emotions associated with smartphone use during travel (total).
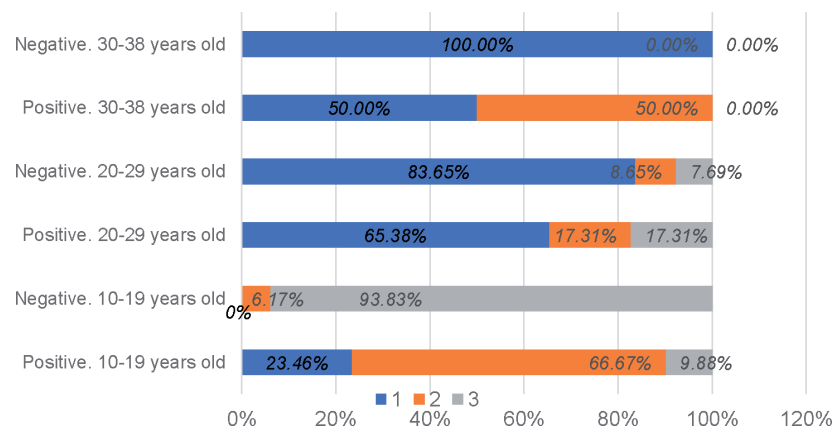
Figure 2.
*Feelings and emotions associated with smartphone use during travel (age groups).*

the sample. Meanwhile, the lowest score, "almost never" (1), predominates in the two oldest age segments (20–29 and 30–38), for both positive and negative feelings, but to a greater extent for the latter. *83.65%* of respondents aged 20 to 29 claim they almost ever feel negative emotions derived from smartphone use. This percentage increases to 100% for the 30–38 age group.

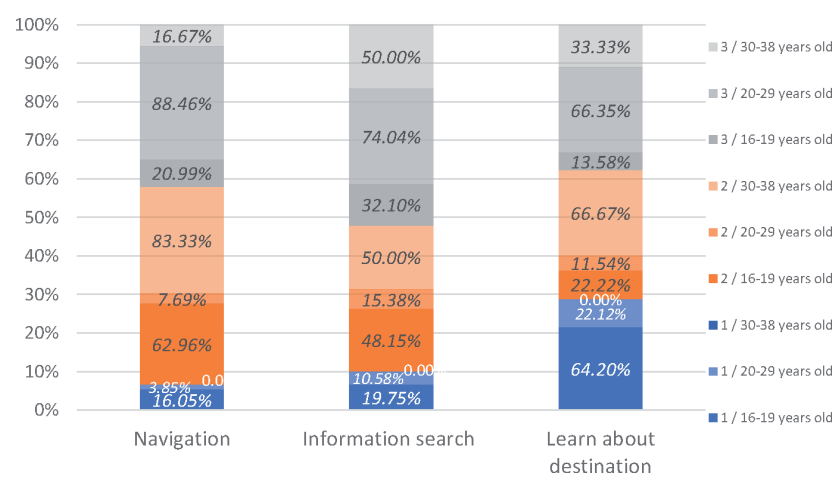## 4.2 Tourism-related functionalities of smartphones

Having identified the feelings and emotions associated with smartphone use during travel, the next step was to describe the frequency or intensity with which this use is oriented to tourism-related activities: navigation, information search and learn about destination. The overall results are presented in **Figure 3**.

Most respondents claim to use the three aforementioned functionalities with the highest frequency (**Figure 3**). In all cases, the highest score (*3*) leads the ranking. However, in the case of "learn about destination," the number of respondents who ranked it with 1 (*75 m*) is very close to that of those who ranked it 3 (*82 m*). This is the least commonly used functionality, followed by information search and navigation, which is the most-commonly used one. A more detailed analysis of these results according to the three age groups is presented in **Figure 4**.

The lowest score and, consequently, the least commonly used of all three functionalities predominates in the youngest age segment (16–19 years old). None of the respondents in 30–38 age group claimed to have never used any of the
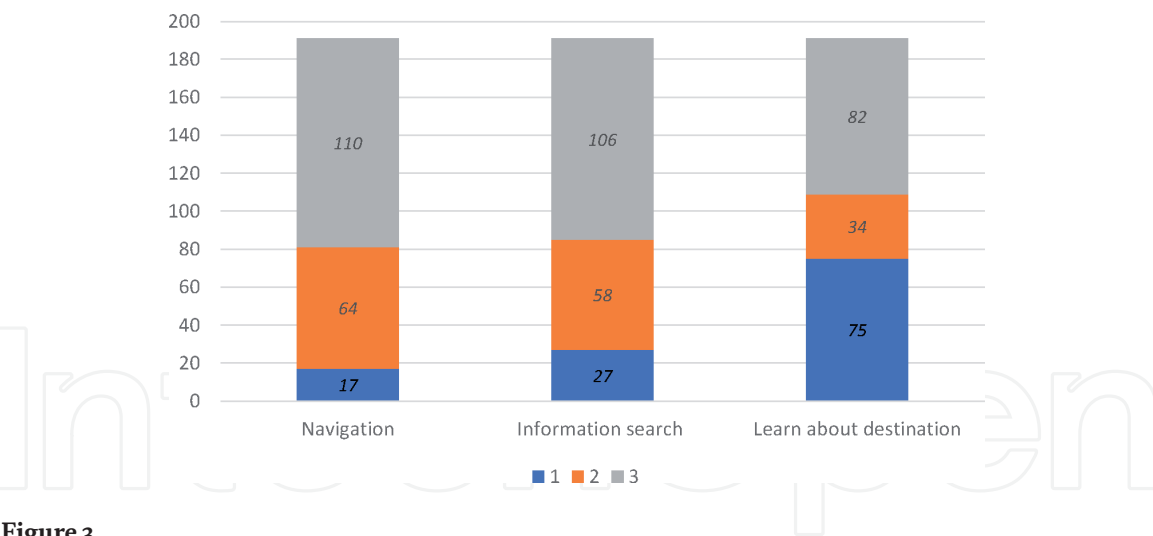
Figure 3.
Use of tourism-related smartphone functionalities.

Figure 4.
Use of tourism-related smartphone functionalities by age group.

three functionalities. At the next frequency level ("sometimes"), the number of respondents aged 16 to 19 increases considerably, although this category is led by respondents in the 30–38 age group, compared to the three functionalities analyzed. Finally, respondents in the intermediate age group, 20 to 29, use these functionalities more than the younger segments.

Figure 5 show the results on the emotions and feelings associated with each of the three tourism functionalities of smartphones.

First, **Figure 5** shows the frequency of use of the navigation function and the feelings respondents associate to it. Negative feelings stand out among those who use it the least (Navigation 1), since *76.47%* of them selected the highest score (almost always) for this type of feelings. Accordingly, *52.94%* of them selected the lowest score (almost never) for positive feelings. This is also the highest percentage among positive feelings. Those who use this functionality "sometimes" (score 2) also claim to experience negative feelings: *76.69%* experience this type of feelings almost always. Importantly, in the negative category, the "almost never" option (*1*) predominates over "sometimes" (*2*). Finally, those who use this functionality the most lead the ranking of positive feelings and emotions (*17.27%*), although a similar percentage (*18.18%*) exhibits the opposite trend. It is important to note that most respondents claim they do not associate either positive or negative feelings (*55.45%* and *72.73%*, respectively) with the use of the navigation functionality of the smartphone during travel.

Results regarding the use of the "information search" functionality, which refers to finding information about services, transport, for instance, are shown in **Figure 6**.

As in the case of the navigation functionality, negative feelings standout among those who use the Information search functionality the least (*1*), with 51,85%. Accordingly, and in line with the reported trend, 51,85% of respondents who claimed to almost never use this functionality gave positive feelings the lowest score 1 (almost never). In this section, this is the highest percentage regarding the usage levels of this functionality. Within the group of respondents who claim to use this functionality "sometimes" (Information 2), once again there is a predominance of negative feelings (*72.41%*), while in the field of positives feelings the predominant scores are 2 (*50%*) y 1 (*39.66%*). Finally, confirming a great similarity to the navigation functionality, the majority of those respondents who use the information search functionality the most (*3*) claim they do not associate positive nor negative feelings (*50%* and *64.15%*, respectively) with the use of this function during travel (**Figure 6**).

The status of the "learn about destination" (Learn dest.) functionality shows similarities to the previous ones, although in this case the most prominent categories are those related to not having experienced feelings or emotions. Within the
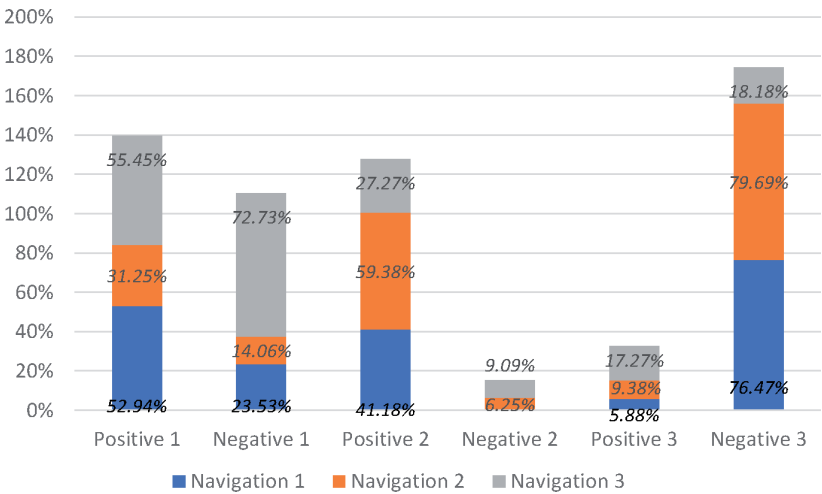
Figure 5.
Tourism-related smartphone functionalities: Feelings and emotions associated with navigation.
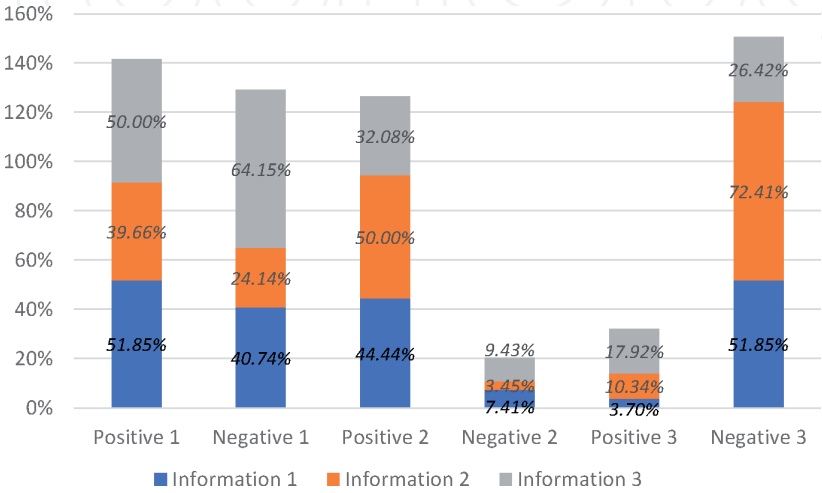
Figure 6.
Tourism-related smartphone functionalities: Feelings and emotions associated with Information Search.

group of respondents who claim to use this functionality the least, negative feelings (*72%*) predominate again. At the second level of use (Learn dest. 2) negative feelings are placed at almost the same level in positions 3 ("almost always", *50%*) and 2 ("sometimes", *55.88%*). Finally, the few respondents who claim to always using this functionality are characterized by an emotional state of indifference, which is greater, if possible, than negative feelings and emotions (*75, 61%*).

5. Discussion and conclusions

Generally speaking, it can be argued that younger generations, and in particular the Gen Y, arouse great interest in the business sectors, including tourism, due to their short, medium and long-term potential [1–7]. Likewise, ICTs and, especially smartphones, are also considered key elements for the development of this sector and necessary for the evolution of destinations into smart tourism destinations [43–46]. Under the web 2.0 model, within the variety of ICTs, smartphones stand out for the numerous advantages and potential to create or improve the tourist experience [36, 42, 51, 52], contributing to the transformation of the consumer tourist into the "adprosumer" tourist [1–4]. The high credibility of the comments and options of adprosumers makes them a key element for the dissemination and marketing activities that DMOs must procure and guarantee [53–59]. To this end, it is essential that smartphone tools are correctly integrated into the digital marketing and communication strategies of DMOs, for which it is essential to obtain detailed information about stakeholders' expectations and ICTs usage habits.

This has been precisely the main objective of this study, focused on smartphone use by the Gen Y during travel and on the emotions and feelings associated with these uses, motivated by the effects of nomophobia on the young population. This is crucial information due to the impact of smartphone use on the perception of the tourist experience and, therefore, on the positive or negative nature of the eWOM Gen Y can generate motivated by factors unrelated to the tourist experience itself.

The main conclusion behind the results presented here is customization and individualization. As mentioned, Gen Y exhibits essential differences that need to be considered in strategic approaches.

Gen Y respondents have confirmed they experience, to a greater extent, negative feelings and emotions, which is one of the characteristic features of nomophobia [68, 70, 71, 74]. This situation occurs mainly among the youngest age segment (16–19), while the older age groups claim to experience greater indifference. It can be concluded that as their years of coexistence with the web 2.0 model decrease, their emotional involvement with the use of smartphones during travel also decreases. Having concluded that Gen Y experience negative emotions that can influence their perception of the tourist experience, the following step was to analyze the extent to which they use the tourism-related functionalities of these devices.

Regarding the tourist functionalities under analysis [84], most users claimed to use them frequently, being "Learn about destination" the least used. There are also intragroup differences in this regard, because the youngest age group (16–19) uses these functions the least, suggesting an area of opportunity for DMOs, which can enhance the use of these functionalities to influence the feelings and emotions Gen Y associate with smartphone use during travel. In fact, the results allude to a behavior among the youngest segment of the Gen Y that suggests that their smartphone use for non-tourism purposes during travel sometimes generates negative emotions and feelings. This behavior is confirmed by the analysis of the results about the emotions and feelings respondents associate with each of the three tourism-related functionalities. In all cases where respondents claim they almost never use any of

the functionalities, negative feelings stand out. However, those who do use these functionalities claim they do not associate neither positive nor negative feelings with smartphone use during travel. This trend grows almost in parallel to participants' age and is amplified in the case of the "learn about destination" functionality.

It is therefore concluded that smartphone use during travel affects the youngest tourists and is not a key element for the rest age groups. There is a clear need to enhance the tourism use of the smartphones among the youngest group (16–19), to promote the creation of positive feelings and emotions. The intermediate age group (20–29) uses the tourist functionalities frequently and is characterized by a more neutral emotional behavior. Finally, the oldest age segment (30–38) requires strategies that combine the virtual and real worlds because, for them, smartphones by themselves do not generate any kind of feeling, which is the main trigger of eWOM.

The conclusions indicate the future limitations and lines of this study on Gen Y′ smartphone uses during travel and their emotional effects. First, it is necessary to delve into the relationship between feelings and emotions, the perception of the tourist experience and the generation of eWOM. It is also relevant to compare the effects derived from the tourist activities performed virtually (via smartphones) and physically (consultation of printed guides, visits to tourist offices, interaction with destinations' residents, etc.). In any case, the main conclusion, as mentioned above, lies in the complexity that characterizes stakeholders, which discourages the indiscriminate use of categorizations and taxonomies to approach digital marketing and communication strategies in the tourism sector. Generational classifications are undoubtedly of great interest and usefulness as a starting point, but they require further and deeper analyses of people's desires and expectations according to their generation. In particular, the rapid and constant change that characterizes ICTs is shortening the periods of study necessary to extract valid general guidelines and premises. In this sense, a generation spanning 22 years, from 1982 to 2004, turns out to be too broad for a general description of smartphone use during travel and its associated emotions and feelings.

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Conflict of interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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