Exploring the application of the uses and gratifications theory as a conceptual model for identifying the motivations for smartphone use by e-tourists

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Abstract

Purpose – The purpose of this paper is to adopt the uses and gratifications theory to tourism.

Keywords Uses and gratifications theory, Classification of uses and gratifications motivations, Conceptual model of uses and gratifications motivations, Smartphones, E-tourist

Paper type General review

1. Introduction

Smartphones combine the emergence of the wide-spread availability of the internet with the advantages of portable telephones (Ling, 2012), with their users frequently selecting "being online" as their default state and emphasizing a unified environment of communication opportunities. Moreover, media users see these phones as polymedia, a product of social and technological interaction conveniently linked with the wider communication sites frequently navigated. This combination of conveniently packaged features and attributes, which enhance the users' ability to access numerous applications, facilitates switching between platforms (Humphrey *et al.*, 2013; Madianou, 2014), the online spaces which media consumers or audiences communicate or interact with content (Kim, 2016).

The end of 2020 saw a total of 6.1 billion smartphone users worldwide (Statista, 2021). In response to this growth, tourist destinations and suppliers around the world have increased their use of mobile technology, specifically developing platforms for smartphones (Dias and Afonso, 2020; Wong *et al.*, 2020). According to recent research, tourists primarily use this technology as they search for information concerning their destinations, both while they are planning a trip as well as while they are travelling (Wang *et al.*, 2016; Wang and Fesenmaier, 2013), with smartphones being particularly convenient and effective for this purpose (Lamsfus *et al.*, 2015). However, there is limited research on why tourists use them. The few studies that have focused on the motivation for their use have found that a growing number of travelers use smartphones because they allow for direct communication with destinations to obtain information regarding travel (No and Kim, 2014; Dickinson *et al.*, 2014). As a result, tourists have now become a part of what Buhalis and Jun (2011) refer to as e-tourism, a form of tourism that maximizes the efficiency and effectiveness of tourism organizations through the use of technology, revolutionizing business processes and the value chain down to the stakeholder (Buhalis and Jun, 2011). In this sense, the smartphone has become a new medium of communication (Wang *et al.*, 2016), one that has the potential to have a significant impact on both the tourist and the tourism industry. As a result, a thorough understanding of this information and communication technology (ICT) in the tourism context has become essential (Lamsfus *et al.*, 2015; Wang *et al.*, 2016).

The travel and tourism industry has relied on ICT to communicate with both tourists and potential travelers, with research in this area focusing on travelers' use of this technology (Yu *et al.*, 2017; Tussyadiah *et al.*, 2018). Much of this research has examined tourists' use of smartphones; however, few studies have been guided by theory (Kim and Law, 2015; Wang *et al.*, 2016). Although most past studies have centered on developing theoretical foundations in ICT and social media in the context of tourism, it was not based on theoretical frameworks with their corresponding appropriate constructs. These constructs and models are needed because they help us to systematically investigate the nature of the research body in a scientific manner (Moon and An, 2022a, 2022b).

Some tourism scholars have pointed to the need for more smartphone and tourism research focused on measuring constructs and the tourism experience based on a theoretical framework (Kim and Law, 2015; Wang *et al.*, 2016; Yu *et al.*, 2017; Moon and An, 2022a, 2022b). To address this need, the study reported here suggests a specific classification (constructs) and conceptual model to enhance our understanding of the uses and gratification (U&G) motivations for tourists' use of smartphones. A conceptual model and classification are key elements for measuring a specific concept because both must be well developed to ensure the resulting measurement scale can accurately examine a construct. Thus, the purpose of this research is to develop a classification as well as a conceptual model of U&G motivations in the travel and tourism domain. The conceptual model and classification suggested in this study will be applied in future research focused on measuring the concept of and developing the scales for U&G motivations.

More specifically, the study reported here applied the U&G theory in its investigation of the motivation for using a smartphone. To do so, it adopted the concept of e-tourism developed by Buhalis and Jun (2011), defining an e-tourist as one who uses ICT to fulfill the need for information, convenience, social interaction and entertainment. These four constructs form the U&G theory, a prominent framework for explaining media use in the journalism and communication areas (Green, 2014; Logan, 2017; Moon, 2020).

2. Social media and mobile technology and their influence on tourism
2.1 Social media and the touristic experience
Social media and the travel experience have similar traits and characteristics, as both are socio-culturally shaped and formed and both create meaning via communicating with other

travelers (Park *et al.*, 2016). As a result, people generally document their various travel experiences (e.g. recording, searching, creating, participating and sharing, etc.) throughout every phase of their travel experience, leading to unique travel-related decisions and experiences (Kah and Lee, 2014; Choe *et al.*, 2017).

Some researchers argue that the travel experience comprises the three interconnected phases of pre-trip, on-site trip and post-trip phases (Gretzel *et al.*, 2011). For example, Munar and Jacobsen (2014) maintain that tourists' activities before their travels involve not only travel planning but also a desire for future trips as the traveler gathers information and communicates via social media. In this context, social media functions as a critical agent, reviewing personal travel stories and offering warnings, advice/tips and recommendations that affect travel decision-makings and even destination impressions before the trip phase. Travel experiences shared on social media are used by prospective tourists who seek objective and trustworthy information to help plan their travels (Kang and Schuett, 2013). According to EMarketer (2019), 58% of US tourism scholars used ratings for their travel information; 49% of them read online reviews and referred to recommendations: 18% viewed pictures, photos and social networking sites (SNSs); 12% used travel blogs; and 5% watched videos.

Tourism scholars argue that social media (e.g. SNSs and online travel forums) can impact travelers' perceptions and experiences of destinations, activities and other travelers (Kang and Gretzel, 2012). Kim and Fesenmaier (2017) also maintain that social media has the potential to transform the travel experience throughout the entire trip. Furthermore, Kah and Lee (2014) point out that social media allows tourists to interpret and re-interpret their travel experiences by strengthening the meaning of the travel. A comprehensive examination of travel and tourism research reveals that social media integrated with the growing use of mobile devices reconstructs how tourists enjoy their trips and ultimately, reshape and rebuild the entire travel experience (Xiang *et al.*, 2015; Choe *et al.*, 2017).

Tourists use social media to seek out information before they travel to reduce the risk of poor decisions, generally obtaining this information on various destinations using electronic word-of-mouth communication on social media (Bae *et al.*, 2017; Wong *et al.*, 2020). They regard electronic word-of-mouth as a trustworthy source of information. Thus, the credibility of shared experience on social media has substantially affected future destination choice and tourist satisfaction (Wong *et al.*, 2020). As social media allow tourists to share their experiences and activities spontaneously, tourism scholars think of this type of media as a critical agent that aids in co-creating the tourism experience (Munar and Jacobsen, 2014; Kim and Fesenmaier, 2017). A crucial function of social media involves tourists sharing their experience and knowledge through online communities and SNSs and then savoring their own experiences (Mkono and Tribe, 2017). Therefore, the expression of tourists' emotions on social media aids in reproducing mediated feedback on and reactions to their past travel experiences (Kim and Fesenmaier, 2017).

2.2 Mobile technology and its impact on travel and tourism
A crucial influence on touristic experiences in the twenty-first century is the impact of mobile technology on the tourism domain. Mobile ICT has become an important tool for many travelers, significantly affecting their experiences and activities and thereby changing the tourism landscape (Gretzel *et al.*, 2011). This situation has been further impacted by the recent advancements in mobile technology that have led to increasing numbers of users (Wang *et al.*, 2012; Im and Hancer, 2014). Previous research has suggested that mobile technology impacts the decision-making capabilities of tourists both before the trip and at their destination by allowing users easy access to information about their destinations (Zhu and Morosan, 2014;

Morosan, 2015). They can plan the sites they wish to see, obtain information from fellow travelers and make on-site changes, all while sharing their experiences with their families and friends back home in real time (Im and Hancer, 2014).

According to Palos-Sanchez *et al.* (2021), travelers can change their behavior depending on contextual factors, and mobile technology can aid them in modifying their decision-making depending on the situation. Tourism decision-making generally consists of a hierarchical structure representing a number of decision elements. In this structure, destination-level decisions are regarded as the foundation of the hierarchy, whereas others such as attractions and lodging are subordinate or minor ones (Lamsfus *et al.*, 2015). Research has found that tourists both traveling alone or in groups delay the decisions at the subordinate level (e.g. accommodations, restaurants and festivals) from the pre-trip stage to the trip stage because of the availability of mobile technologies (Vallespin *et al.*, 2017). Moreover, the use of mobile devices allows tourists to gain improved awareness and knowledge of their geographical and socio-cultural environments (Morosan, 2015), again suggesting that travelers on the move are more likely to be engaged in subordinate or secondary decisions.

Another impact of mobile technology on the travel and tourism domain according to Wong *et al.* (2020) is that it can highlight potential travel experiences, implying that tourism sites and activities are becoming virtually oriented and interconnected. They suggest that mobile technology provides on-the-go tourist with the affordance of being able to physically and virtually travel, allowing them to reconfigure their perceptions and awareness of time and space (Wong *et al.*, 2020). Moreover, tourists can be present in multiple virtual augmented realities or involved in two different locations at the same time because of mobile-based networks (Lin and Chen, 2017).

In addition, because of the mobile technology environment, tourists have immediate access and connection, providing them with increased chances for on-site transactions, in part because of their interactions with fellow travelers (Chang *et al.*, 2016). As a result, travelers can be involved in fluid and dynamic decision-making in the travel and tourism context (Lamsfus *et al.*, 2015; Vallespin *et al.*, 2017). Specifically, the on-the-go stage in the IT tourism context should be regarded as an open or a comprehensive system, as the tourists carry over various features and perspectives from the pre-trip phase and their daily lives because of mobility. For instance, travelers can carry their mobile identity from their daily lives to the mobile tourism setting (e.g. logging into Priceline.com). Therefore, travel and tourism intrinsically demonstrate the interconnectedness of different stages (time and space) of travel (Lamsfus *et al.*, 2015; Kirova and Vo Thanh, 2019; Wong *et al.*, 2020).

Furthermore, according to Lamsfus *et al.* (2015), travel decision-making during the enroute phase tends to be more flexible because of mobile technology because tourists can access new sources of information which they did not expect. Decision-making flexibility means travelers can alter their travel plans depending on unexpected circumstances (Chen *et al.*, 2018). As a result, decision-making while travelling has become more dynamic, as it embraces the interdependence of various decision processes, with the contexts of later decisions being dependent on the outcomes of previous ones (Tan and Chen, 2021). Therefore, the use of mobile devices can alter the decision circumstances involving on-site decisions, specifically through the availability of search engines and social media (Chang *et al.*, 2016). Unplanned behavior occurs when travel plans alter unexpectedly, and as Tan and Lu (2019) pointed out, the use of mobile technology could lead to immediate and direct changes in trip plans.

Moreover, decision-making timing (e.g. instantaneous vs long-term) serves as a critical predictor demonstrating travel intention and consumption patterns (Palos-Sanchez *et al.*, 2021).

Tourists use disparate time frames for making decisions concerning various kinds of services and products because of the multi-structured aspects of decision-making. Generally, it takes weeks or months for a tourist to decide the destination to visit. Unlike the pre-trip planning phase, the enroute phase is more likely to involve spontaneous and instantaneous decisions. Mobile technology can be regarded as an effective and handy tool in this decision-making process (Wong *et al.*, 2020; Lin and Chen, 2017).

2.3 Smartphone and its impact on travel and tourism

Smartphones can supply tourists with various innovative applications as well as voice communications to gratify personal information services (Palos-Sanchez *et al.*, 2021). Internet access via smartphones enables people to extend their mobile capabilities to SNSs and share information on-site (Chang *et al.*, 2016). Tourists tend to use smartphone SNSs that have access to travel websites for events, restaurants, transportation, festivals and accommodations (Palos-Sanchez *et al.*, 2021).

Smartphones have the potential to aid tourists by providing them with the opportunity to access online information anytime and anywhere (Kim and Law, 2015). According to Liu and Law (2013), smartphones enhance the quality of customer service and assist tourists in searching for information and making reservations even while enroute to a destination. Today smartphones enable tourists to book hotels and manage the services they desire in addition to making travel decisions during the trip more feasible and flexible (Tussyadiah and Wang, 2016). Thus, smartphones have had an impact on tourism experiences, and their increasing use has significantly affected travel behavior and decision-making processes (Yu *et al.*, 2017; Wong *et al.*, 2020).

The influence of smartphones is increasing exponentially in relation to tourism behavior and travel decision-making (Kim and Law, 2015; Dias and Afonso, 2020). As these phones have become more sophisticated, so have the information services that they offer; because they now offer more than basic travel information, their mediation of the behavioral and psychological aspects of the touristic experience has been enhanced (Tussyadiah, 2016). While time and location have been impacted by mobile technology, smartphones have further introduced instantaneous opportunities and resources, as tourists can pull a smartphone out of their purses or pockets and immediately obtain information on museums, restaurants or attractions. These opportunities are highly personalized and aid tourists in planning and/or changing travel plans (Dickinson *et al.*, 2014; Kirova and Vo Thanh, 2019). Moreover, because of smartphones, tourists can maintain contact with family, friends and travelers by sharing their thoughts, reflections and interpretations of their experiences as they travel (Wang *et al.*, 2016; Tan and Chen, 2021). Indeed, the use of smartphones allows people to create more meaningful travel experiences (Kirova and Vo Thanh, 2019).

Smartphones have also transformed tourist behavior by offering personalized mobile services and customized information with location-based services (Tan and Chen, 2021). For example, when a consumer buys a trip package, real-time weather forecasts and transportation information are provided by the time the tourist leaves home (Tan and Lu, 2021). As this analysis suggests, because of smartphones, travelers can make immediate decisions based on the most current information available (Wong *et al.*, 2020). In addition to needing information for effective decision-making, as Lamsfus *et al.* (2015) pointed out, tourists also want to remain in touch with their online communities while they are traveling. As such, smartphones help travelers stay connected to social networks. The context of smartphone use involves the fulfillment of information and communication as well as travel behavior and decision-making (Tan and Chen, 2021). As a result, smartphones function as an effective and robust channel for interacting with other travelers (Tussyadiah and Wang, 2016). Tourism destination

organizations face new challenges because the increasing use of smartphones can be a principal force shaping traveler behavior (Kang *et al.*, 2020; Yu *et al.*, 2017). Therefore, tourism scholars point to the need for destination organizations to combine marketing tactics or skills and use new types of business models to leverage the advantages of the mobile environment (Kim and Law, 2015; Palos-Sanchez *et al.*, 2021). Smartphones are considered a portable media platform for the online travel community, which can lead to spontaneous interactions among travelers and affect travel experiences (Tussyadiah, 2016; Chen *et al.*, 2018).

Because of their impact, smartphones have increasingly become the focus of research in the tourism domain. However, tourism scholars have pointed out that the research concerning smartphone use in this field lacks conceptual and systematic investigation, meaning more is needed before we fully understand the impact of the smartphone on the tourism domain (Lee *et al.*, 2014; Kang *et al.*, 2020). To address this need, this research applied the U&G theory to explore tourist motivations for using a smartphone (Moon and An, 2022a, 2022b).

3. Uses and gratifications theory

The U&G theory has been found to be versatile and viable in the journalism and mass communication domains, and thus, it can potentially be extended to the travel and tourism area. This section reviews the U&G theory, discussing why it is appropriate for application to smartphone use in the study of travel and tourism. We first address its historical development, basic assumptions and fundamental concepts and then its four constructs of information, convenience, social interaction and entertainment based on communication and advertising research. Because it is recognized as viable for representing human behavioral dimensions related to mediated communication, this theory has the potential to provide a theoretical framework for the travel and tourism domain (Ruggiero, 2000; Ko *et al.*, 2005; Moon, 2020; Moon and An, 2022a, 2022b). Even though few studies have applied it, this theory may provide an insightful lens into tourist behavior.

3.1 Historical development

In the 1940s, Herzog (1944) introduced the U&G theory in her investigation of the motives for listening to the radio, finding the four motivations or uses, of self-rating, competitive, sporting and educational, leading to the three gratifications of emotional release, wishful thinking and advice. Extending this theory to print media, Berelson (1949) suggested that newspapers provided readers with the three motivations of a sense of security, shared topics of conversation and structure in their daily routines. Further research conducted by Blumber and McQuail (1969) investigated audience motives for watching televised political programs during the 1964 election in England, with the results classifying the audiences' motives into four groups: diversion, personal relationships, personal identity and surveillance.

Extending this research to multiple media, Katz *et al.* (1974) explored the gratifications for radio, film, television, newspapers and books using 35 need statements, their results suggesting that television offered a wider range of gratifications than newspapers and film. This finding is logical because during the 1970s and 1980s, television had a broad audience, while radio and print were regarded as supplementary media. More recently, this theory has been applied in the investigation of various media uses (Stacks and Salwen, 2009), including new media and information technology domains such as video games, the internet and cell phones (Foregger, 2008). It has become increasingly important for establishing a foundation for research in this domain because of the expanding use of new media and information technology in mediated communication (Foregger, 2008). A fuller history of the application of this theory can be found in various review articles (Luo, 2002; Ko *et al.*, 2005; Foregger, 2008; Mahmoud, 2010; Logan, 2014; Green, 2014; Ha *et al.*, 2015; Logan, 2017; Moon and An, 2022a, 2022b).

3.2 Basic assumptions
While other mass communication theories see audiences as passive receivers of information, the U&G theory views them as active media users (Moon, 2016), meaning the former emphasizes "what media do to people," while the latter focuses on "what people do with media" (Katz, 1959, p. 47). This theory is based on three assumptions:

(1) Users are active participants in the media environment; in the travel context, tourists actively use their smartphones to fulfill their intrinsic needs, referred as four motivations (social interaction, entertainment, convenience and information), creating expectations and realizing gratification while they are traveling.

(2) Their use is goal-directed, purposive and motivated; that is, traditional media users can watch TV and listen to the radio unconsciously and without thinking. But, in the context of the U&G theory and tourism, media users (tourists) are purposive and motivated to use their smartphones for information, convenience, social interaction and entertainment.

(3) They highly interact with communication media. In other words, the interactivity inherent in mobile technology (smartphones) blurs the boundary between sender and receiver, a situation especially true and important in tourism today (Kim and Law, 2015; Logan, 2017; Moon, 2020; Moon and An, 2022a, 2022b).

According to this theory, users will intentionally select the media most able to meet their needs (Severin and Tankard, 1997; McQuail, 2010), meaning it focuses on the individual media consumer and their choices and uses. In addition, it asserts that the same media can be used by different audiences but for entirely different needs (Severin and Tankard, 1997). More importantly, according to this theory, media consumers recognize their own needs and, thus, select the media most able to satisfy them. In other words, users are active consumers, taking the initiative to select the media that best suits them (Katz *et al.*, 1974). Applied to the travel and tourism domain, tourists recognize the four motivations and choose smartphones to gratify them. For example, if we are visiting the Magic Kingdom in Disney World in Orlando, FL, then we have the option of two different entrance types: the fast pass or the regular pass. If we use the smartphone app on the location track and choose the fast pass, then we do not have to wait in line for a long period of time; we can immediately get into the attraction using our smartphones. Using a regular pass, however, means that we may wait for an hour or two to gain entrance to only one attraction. Smartphones can benefit tourists, in this case the motivation being convenience (Moon, 2020).

More specifically, this theory identifies the psychological needs explaining why people select a particular media to satisfy their specific needs (Rubin, 1994; Lin, 1999; Menon and Meghana, 2021). In other words, in the travel and tourism context, the primary goal of this theory is to identify four motivations explaining smartphone use by tourists while traveling and how and why they actively seek smartphones to satisfy their four motivations. This choice is based on media features, individual or social and psychological traits and perceived needs, that is, the reasons why people use media to share experiences and realize gratification. As this analysis of the theory suggests, people choose a media platform for specific reasons, that is, they have a need that they believe it will satisfy, one they anticipate will be gratified (Green, 2014; Logan, 2017; Stacks and Salwen, 2009).

The U&G theory has seen wide application in research investigating the more traditional media. As a result, it appears logical that it can also be applied to the more contemporary internet and social media technology and platforms including smartphones (Browning and Sanderson, 2012). In the new computer-mediated communication environment, especially in

smartphone research in the field of travel and tourism, tourists select smartphones on their own and use them. Unlike traditional media such as television and radio, smartphones are viewed with high selectivity in the travel and tourism context. While people can listen to the radio or watch television (traditional media) unconsciously, they select their own smartphones and use them intentionally and actively, creating expectations and obtaining satisfaction (gratification) (Moon, 2020).

The application of this theory to new computer-mediated communication is possible because it is based on an active audience (Foregger, 2008; Logan, 2014). According to Ruggiero (2000), as mobile technology is interactive in nature, the boundary between sender and receiver has been blurred, especially in the case of the smartphone, as the two interact with each other. This interactivity substantially reinforces the core U&G concept of active users, as it has been defined as "the degree to which participants in the communication process have control over and can exchange roles in their mutual discourse" (Williams *et al.*, 1988, p. 10; Moon, 2016).

In the context of travel and tourism, interactivity involves the use of online media platforms to share travel experiences, including comments, feedback and/or information, with other travelers (Ko *et al.*, 2005; Xiang *et al.*, 2015; Dickinson *et al.*, 2014), thereby both enhancing and increasing communication activity (Kim and Law, 2015; Ruggiero, 2000). Further, travel information and feedback have the added advantage that they can be provided and accessed immediately (Tussyadiah, 2016). Based on the concept of interactivity, the media experience via smartphone will enhance the tourist experience, resulting in satisfaction (Moon, 2016).

3.3 Fundamental concepts

The five fundamental concepts of the U&G theory are 1) Active audience, 2) Social and psychological origins, 3) Strong motives for media use, 4) Expectancy (Potential gratifications) and 5) Gratifications (Stacks and Salwen, 2009; Mahmoud, 2010). First, "one of the fundamental assumptions of the Uses and Gratifications Theory has been that an active audience member makes conscious decisions about the consumption of media content" (Rayburn, 1996, p. 156); therefore, the process of perception involves one of the most critical traits and characteristics of active audiences. According to Carey and Kreiling (1974), perception is an active, not a passive, process; thus, as an active managing and organizing process, it functions as one of the core concepts of the U&G theory. Audiences' perceptions of media behavior and expectations are considered, as these users select various types of media and how a specific message can be interpreted in a given situation (Swanson, 1979).

Second, audiences do not use the media as isolated individuals, but rather they use the media as members of groups and then participate in social situations (Johnstone, 1974). According to McQuail (1998), the social or the psychological milieu encourages media use as a way to satisfy audience needs such as information seeking and social education. Third, strong motives for media use relate to audience activity, as it serves as an essential element of the U&G theory (Rubin, 2002). "Motives are general dispositions that influence people's actions taken to fulfill need or want" (Papacharissi and Rubin, 2000, p. 179). For example, the reasons for watching television include (1) to pass time, (2) to forget, as a means of diversion, (3) to learn about things, (4) to learn about myself, (5) for arousal, (6) for relaxation, (7) for companionship and (8) as a habit (Papacharissi and Rubin, 2000).

Fourth, the concept of expectancy suggests that media users behave based on a perceived likelihood that an action will have a specific outcome, and they evaluate and rank the consequences (McQuail and Windahl, 1997). Finally, communication scholars have focused on exploring the gratifications of media users (Swank, 1979), specifically two types:

gratifications sought and gratifications obtained. Greenberg (1974) pointed out that gratifications sought and obtained are not distinguishable, with Palmgreen *et al.* (1980) finding a strong relationship between the two. Other communication scholars such as Blumler (1979), Rubin (2002) and Park and Lee (2014) have suggested that the concept of gratifications is vague and difficult to apply to research based on individual responses. According to some scholars, people choose their media platforms with a specific intention in mind, anticipating it will be satisfied; this satisfaction is what is referred to as gratification (Green, 2014; Logan, 2017; Stacks and Salwen, 2009). These researchers suggested that gratifications could be used interchangeably for satisfactions. Previous research on the U&G theory has used its own measurement scales of gratifications (satisfactions) depending on the nature of the research and the individual researcher (Foregger, 2008; Green, 2014; Ha *et al.*, 2015; Ko *et al.*, 2005; Logan, 2014; Logan, 2017; Luo, 2002; Mahmoud, 2010).

Smartphones combine various types of media (voice calls, games, email, videos, texting, video calls and self-help apps), and applying this theory to their use may help us understand the needs they meet in various contexts (Logan, 2017), one of which is in the travel and tourism domain. While past research has found multiple constructs defining the reasons for media use, this study uses the dimensions of information, convenience, social interaction and entertainment based on previous communication and advertising research, as they are most applicable to the smartphone in the travel and tourism domain (Foregger, 2008; Green, 2014; Ha *et al.*, 2015; Ko *et al.*, 2005; Logan, 2014, 2017; Luo, 2002; Mahmoud, 2010; Moon, 2020; Moon and An, 2022a, 2022b).

3.4 Four constructs: Four motivations for using smartphones by tourists

3.4.1 Information. The information construct refers to the use of media, in particular the internet and mobile technology, to find resourceful information (Chen and Wells, 1999; Luo, 2002). As Hausman and Siekpe (2009) found, the attitude of media users toward mobile technology is enhanced when it is informative. In addition, mobile communications serve as crucial channels for obtaining information that users need (Ha *et al.*, 2015). Information delivery at any level through mobile communication functions as a critical factor in the tourism and travel context (Wong *et al.*, 2020).

Smartphone apps have the advantage that they can provide information from various sources quickly and easily (Dickinson *et al.*, 2014; Lamsfus *et al.*, 2015); as a result, tourists have access to personalized information in real-time (Dolan *et al.*, 2016). The smartphone serves as a helpful interactive tool for finding information concerning attractions, transportation and accommodations. During a trip, travel planning can be flexible and less stressful with a smartphone (Tussyadiah, 2016). For example, finding a restaurant during a trip becomes easy, as travelers can use a mobile phone to check a location, a menu including daily specials and the price (Xiang *et al.*, 2015; Wong *et al.*, 2020). In addition, they can keep track of when their friends will arrive to meet them.

3.4.2 Convenience. Convenience is composed of effort, time and space (Collier and Sherrell, 2010). As applied to smartphones, it refers to their capability to enable users to find information *easily and quickly* without the constraint of time or location (Yu *et al.*, 2013; Ha *et al.*, 2015; Moon and An, 2022a, 2022b). As the travel and tourism industry is nomadic in nature, mobile technology supplies tourists with increased *flexibility* and functions as an important information channel (Tussyadiah and Wang, 2016). A smartphone provides tourists with the flexibility to change their plans fairly quickly, its capability offering them local knowledge, information not commonly found in tourist guides or on travel websites that can enhance the travel experience (Dickinson *et al.*, 2014). This increased flexibility has created a new tourism and travel paradigm, one based on evolving and immediate

information rather than the traditional model focused on advance planning (Yu *et al.*, 2017; Moon, 2020).

Smartphones facilitate rapid access to information via mobile convenience (Ha *et al.*, 2015), providing tourists access to a wealth of tourism information regardless of their location (Dolan *et al.*, 2016). For example, smartphones provide travel information and instant feedback on accommodations for tourists so that they can *immediately* change travel plans (Dickinson *et al.*, 2014). In addition, they enhance interactivity, building relationships between tourists and travel authorities (Dias and Afonso, 2020). Smartphones enable tourist to rearrange scheduling and offer them increased flexibility (Dickinson *et al.*, 2014; Tussyadiah and Wang, 2016). Because smartphones are small and mobile, they enhance the tourist experience, allowing travelers the convenience of being able to *quickly and easily* check for updated information no matter where they are or the time of day.

3.4.3 Social interaction. Social interaction focuses on people's comfort level and feelings of connectedness during interpersonal communication. According to previous research, mobile technologies have increased user options for interactive platforms. Much of today's communication interactions involve sharing information with others (Ha *et al.*, 2015). These interactions are enhanced because mobile phones and the internet have transformed the ease and timing of social interactions and communication (Dias and Afonso, 2020; Moon and An, 2022a, 2022b).

Most tourists regard a smartphone as an effective communication tool because it aids them in linking with others via text messages, phone calls, emails and social media. For instance, even when away, tourists can address issues in their workplaces (Wang and Fesenmaier, 2013). This ongoing receipt of information provides tourists with strong ties and a sense of connection to their jobs (Plume and Slade, 2018). In addition, family members can worry when others are on a trip and cannot be reached. Writing about travel experiences on Facebook or Twitter helps reassure them of their loved one's safety as well as keeps them informed, making them part of the travel experience (Tussyadiah, 2016; Dias and Afonso, 2020).

While people are traveling, they can feel socially excluded. As a result, they are motivated to get in touch with friends and relatives (Green, 2014). Even though people travel to get away from everyday concerns, they still want to belong to a community or a group of colleagues so that they can feel comfortable and reassured. Although tourists are physically separated, they want to be socially and emotionally connected with their current relationships (Choi *et al.*, 2016). Tourists can experience this sense of social inclusion via frequent smartphone communication, which can create a symbolic proximity for tourists (Plume and Slade, 2018). In addition to this feeling of inclusion, smartphones also provide tourists with a sense of security (Green, 2014).

3.4.4 Entertainment. Past research has defined the entertainment construct in relation to the enjoyment media provides to users (Luo, 2002), the extent to which it allows them to be entertained, relax and escape from their problems (McQuail, 2010). According to Chen *et al.* (2018), users choose media to help them relieve stress, meaning people use it as a distraction either by intentionally selecting a platform that is soothing or one that is stimulating. Similarly, individuals also turn to media to relieve boredom (Green, 2014), to be entertained as an escape from their daily lives. Previous research has found that users are more frequently motivated to use the media that provides the highest entertainment value (Kirova and Vo Thanh, 2019).

Specific to this study, smartphones can enhance the intrinsic enjoyment and escapism for travelers (Ha *et al.*, 2015). For example, visitors to Disney can use the online community in the smartphone app to meet and chat with others, sharing travel experiences with them and memories from their childhood. In this situation, the online community goes beyond a

simple online discussion board by enriching their experience of this destination (Tussyadiah, 2016). Tourists also use smartphones for such entertainment activities as playing games, reading digital books and listening to music especially when no particular activities are scheduled (e.g. time waiting for the next program). Sometimes, when travelers feel bored during a trip, they can watch a movie using smartphone, for example, as they wait for their next flight (e.g. during transit) (Yu *et al.*, 2017; Moon, 2020). Moreover, travelers use smartphones to record their memories by taking photos and videos and sharing them with friends, both those at home and with them at the destination, via social media such as Twitter and Facebook (Choi *et al.*, 2016; Moon and An, 2022a, 2022b). As this analysis suggests, the use of smartphones has changed the touristic experiences, making trips enjoyable and memorable (Yu *et al.*, 2017).

4. Conclusion and discussion

This study has reviewed social media and the touristic experience, mobile technology and smartphones and their impact on travel and tourism. While there is a body of research on the use of smartphones in the context of travel and tourism, few studies focus on the motivation for using them based on a theoretical lens. Thus, this study has introduced and applied the U&G theory to the travel and tourism field. As shown in Figure 1 (Moon and An, 2022a), the study found four motivations for using smartphones by tourists, referred to as the U&G motivations, specifically social interaction, information, entertainment and convenience. And thus, this study conceptually addressed the link between the theory (U&G motivations) and smartphone research in the field of travel and tourism, providing a conceptual model for U&G motivations in smartphone research in tourism.

This study also developed a classification of U&G motivations (extant items) for this field. Ko *et al.* (2005) suggested the classification of U&G motivations, and Luo (2002), Ko *et al.* (2005) and Logan (2017) developed motivation items based on it for the communication field. However, this model and scale are not appropriate for testing the U&G motivations in the field of travel and tourism because they have been tested in and applied to the
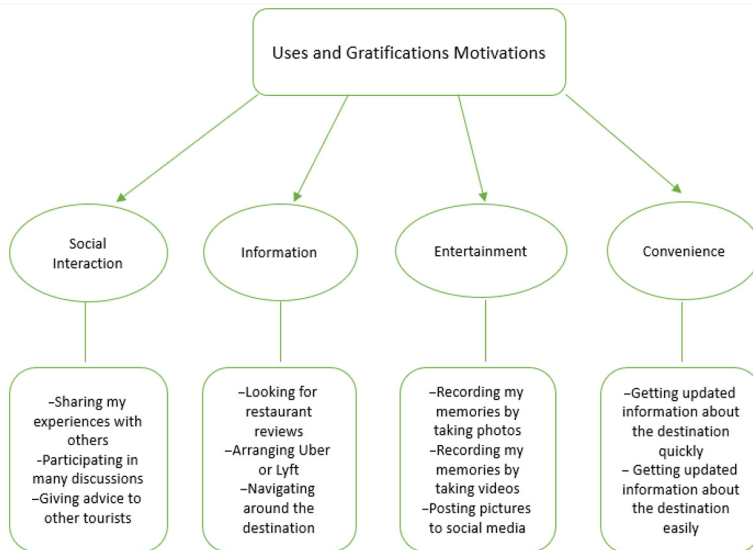
Figure 1.
A conceptual model of uses and gratifications motivations in the context of e-tourism (Moon and An, 2022a)

communication and advertising area. Therefore, this study developed a classification of U&G motivations for use of a smartphone while traveling. Based on a conceptual model and a classification of U&G motivations suggested in this study, a future study can develop a reliable and valid U&G motivation scale in the context of travel and tourism. For future empirical research, this study can also contribute to the development of a new scale for measuring the motivations for use of smartphones by tourists, their attitudes towards smartphone use and their satisfaction with it. Moreover, it can contribute to developing a conceptual framework of U&G theory and to investigating the causal relations among its four motivations (i.e. social interaction, entertainment, information and convenience) for using smartphones and how gratified (satisfied) tourists are with the use of this platform (smartphone) in the travel and tourism context. From a practical perspective, tourism practitioners and marketers can use the U&G motivations classifications to examine both the communication and economic impact of media consumers (referred to as e-tourists here) resulting from the U&G motivations. As these perspectives suggest, this study increases the growing body of research being conducted on the U&G theory in the travel and tourism domain (Moon and An, 2022a, 2022b).

The study provided a basic review of the U&G theory, including its historical development, basic assumptions, foundational concepts and four motivations. Despite its limitations, this work corroborated and substantiated the validity of this theory. The U&G theory is a versatile and viable one in the journalism and mass communication domain, and thus, it can be extended to travel and tourism. This study demonstrates that this theory can serve as a useful and effective conceptual framework for aiding tourism researchers in gaining a better understanding of tourism phenomena. It can also lead us to a fuller understanding of the application of this theory to new media and tourism, offering the possibility for investigating the issues of social media and IT in travel and tourism through the lens of this theory.

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