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Exploring Consumer Motivations, Engagement and Customer Value in Online Brand Communities

A Perspective from Tourism, Travel and Hospitality Services

JYVÄSKYLÄ UNIVERSITY
SCHOOL OF BUSINESS AND ECONOMICS

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ABSTRACT

Digital technologies have dramatically changed consumers' buying behaviours. Overtime, different social media platforms have emerged with varying features that target specific groups. In the tourism domain, these social media platforms and travel sites provide communities where reviews can be shared among members. Against this backdrop, there is little doubt that these communities exert significant influence over consumers' buying behaviour regarding tourism services. However, recent reports have highlighted that the growing trend of online deviant behaviour is negatively affecting consumers' interest in these communities, with the concomitant effect of some firms shutting down their online communities.

This dissertation provides a synthesis of the literature on this topic and specifically examines consumer motivations, engagement and customer value and how they affect continuous participation. Five research articles (two literature reviews and three quantitative studies) were used to examine different angles of the topic.

The findings indicated that different antecedents influence consumers' interests in online travel communities (OTCs). Additionally, by integrating the social presence theory with customer value, this research found that offline activities are critical to creating mechanisms in OTCs. Specifically, while hedonic value and social value were positively related to offline activities, support was not found for functional value. This implies that offline communication fundamentally contributes to social ties, cohesiveness and pleasure in OTCs. However, firms should be cautious about relaying commercial messages during offline events. This study also found that customers who perceive functional value, hedonic value and social value in OTCs will engage in positive word of mouth to recommend the platform to peers and friends. Moreover, those who visit the platform frequently will recommend it to others for locating useful travel information; however, those who spend a longer time on it will not recommend it for its entertainment features. Finally, platform credibility could be enhanced by allowing both favourable and unfavourable content. However, live editors are needed to screen out content that is misleading, exaggerated and/or offensive to others.

Keywords: online travel community, customer value, source credibility, customer engagement, continuous participation

TIIVISTELMÄ

Digitaaliset teknologiat ovat merkittävästi muuttaneet kuluttajien ostokäyttäytymistä. Viime aikoina erilaiset sosiaalisen median palvelualustat ovat kehittyneet uusilla ominaisuuksilla, joilla tavoitetaan valikoidut kohderyhmät. Turismin kontekstissa nämä sosiaaliset mediat ja matkailusivustot ovat luoneet verkkoyhteisöjä, joissa arvosteluja voidaan jakaa yhteisön jäsenten kesken. Tätä taustaa vasten ei ole epäilystäkään siitä, että nämä yhteisöt vaikuttavat merkittävästi kuluttajien matkailupalveluiden ostokäyttäytymiseen. Viimeaikaisissa tutkimuksissa on kuitenkin korostettu, että verkossa korostuva negatiivinen verkkokäyttäytyminen (esim. arvosteluissa) vaikuttaa kielteisesti kuluttajien kiinnostukseen näitä yhteisöjä kohtaan, minkä vuoksi osa yrityksistä on sulkenut verkkoyhteisöpalvelunsa.

Tämä väitöskirja antaa synteesin aiheeseen liittyvästä kirjallisuudesta ja tarkastelee erityisesti kuluttajien motivaatioita, sitoutumista ja asiakasarvoa sekä miten ne vaikuttavat jatkuvaan osallistumiseen. Aiheen eri näkökulmien tutkimiseksi kirjoitettiin viisi tutkimusartikkelia (kaksi kirjallisuuskatsausta ja kolme kvantitatiivista tutkimusta).

Väitöskirjan tulokset osoittivat, että erilaiset tekijät vaikuttavat kuluttajien kiinnostuneisuuteen matkailun verkkoyhteisöitä kohtaan. Tutkimus myös osoitti, että, yhdistämällä sosiaalisen läsnäoloteorian asiakasarvon teoriaan verkkoympäristön ulkopuoliset aktiviteetit ovat kriittisiä matkailun verkkoyhteisöissä.

Tarkemmin sanottuna, vaikka hedoninen arvo ja sosiaalinen arvo selittivät positiivisesti offline-aktiviteetteja, toiminnalliselle arvolle ei löytynyt tukea. Tämä tarkoittaa, että offline-viestintä vahvistaa pohjimmiltaan sosiaalisia siteitä, yhtenäisyyttä ja nautintoa matkailun verkkoyhteisöissä. Yritysten tulisi kuitenkin olla varovaisia kaupallisten viestien välittämisessä offline-tapahtumien aikana.

Tutkimuksessa havaittiin myös, että asiakkaat, jotka kokevat saavansa toiminnallista arvoa, hedonista arvoa ja sosiaalista arvoa matkailun verkkoyhteisöstä suosittelevat yhteisöpalvelua myös muille. Ne, jotka vierailevat sivustolla usein, suosittelevat palvelua sitä hyödyllisen matkailutiedon löytämiseksi. Kuitenkin käyttäjät, jotka viettävät palvelussa enemmän aikaa, eivät suosittele yhteisöpalvelua sen viihdeominaisuuksien vuoksi. Lopuksi, verkkoyhteisön luotettavuutta voitaisiin parantaa sallimalla sekä positiiviset että negatiiviset julkaisut. Tästä huolimatta verkkoyhteisöille tarvitaan toimittajia, jotka käyvät julkaistavan sisällön läpi sen osalta onko julkaisu harhaanjohtava, liioiteltu tai hyökkäävä muita kohtaan.

Avainsanat: matkailun verkkoyhteisö, asiakkaan kokema arvo, lähteen uskottavuus, asiakkaan sitoutuminen, jatkuva osallistuminen

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The future is very bright!

Jyväskylä 17.04.2020
Dandison Ukpabi

FIGURES

TABLES

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LIST OF PUBLICATIONS

This doctoral dissertation is based on the original publications and manuscript which are listed below and referred to in the text.

1. Ukpabi, D. C., & Karjaluoto, H. (2017). Consumers' acceptance of information and communications technology in tourism: A review. *Telematics and Informatics*, *34*(5), 618-644.

2. Ukpabi, D. C., & Karjaluoto, H. (2018). What drives travelers' adoption of user-generated content? A literature review. *Tourism management perspectives*, *28*, 251-273.

3. Ukpabi, D., Karjaluoto, H., Olaleye, S., & Mogaji, E. (2019). Influence of offline activities and customer value creation on online travel community continuance usage intention. In *Information and Communication Technologies in Tourism 2019* (pp. 450-460). Springer, Cham.

4. Ukpabi, D., Karjaluoto, H., Olaleye, S., & Mogaji, E. (2020). Customer Value Framework and Recommendation Intention: The Moderating Role of Customer Characteristics in an Online Travel Community. In *Information and Communication Technologies in Tourism 2020* (pp. 450-460). Springer, Cham.

5. Ukpabi, D., Mkumbo, P., Karjaluoto, H., Sheikh, A. (Ready to be submitted to journal). The role of source credibility in customer motive and customer engagement in online travel community platforms.

AUTHOR'S CONTRIBUTION

The author's contributions to the publications are contained in the table below:

TABLE 1 Author's contributions

Manuscript	Research design and data collection	Literature review	Data analysis, results and writing
Article 1 'Consumers' acceptance of information and communications technology in tourism: A review'	The author was responsible for both the research design and the data collection.	The author was also responsible for the literature review.	The data analysis, results and writing were the responsibilities of the author. However, the co-author provided general comments and edits to improve the quality of the manuscript.
Article 2 'What drives travellers' adoption of user-generated content? A literature review'	The author was responsible for both the research design and the data collection.	The author was also responsible for writing the literature section.	The author was equally responsible for the data analysis, results and writing. As with Paper 1, the co-author provided general comments on and edits to the manuscript.
Article 3 'Influence of offline activities and customer value creation on online travel community continuance usage intention'	The author was responsible for both the research design and the data collection.	The author shared responsibilities with the co-authors for the literature review and writing.	The author also shared responsibility for the data analysis, results and discussion.
Article 4 'Customer value framework and recommendation intention: The moderating role of customer characteristics in an online travel community'	The author was responsible for both the research design and the data collection.	The author shared responsibilities for the literature review with the co-authors.	The author shared responsibility with the co-authors for the data analysis, results and discussion.
Article 5 'The role of source credibility on customer motive and customer engagement in Online Travel Community platforms'	The author was responsible for the research design and shared responsibility with the co-authors for the data collection.	The author was responsible for writing the literature review.	The author shared responsibility with the co-authors for the data analysis, results and discussion.

1 INTRODUCTION

Communication, which is a critical part of everyday life, takes place between people in the same household, neighbourhood, group and even those not in the same geographical location. While communication has long been either verbal or conducted through signing or via secondary tools, such as letter writing, as technology has evolved, communication has advanced such that time and distance are no longer barriers. Interestingly, a new vista in communication was witnessed with the emergence of the Internet such that, with the press of a button, a user can pass on information to millions of users worldwide. The capabilities of the first Internet era, otherwise known as Web 1.0, only allowed for one-way communication (Kollmann, Lomberg, & Peschl, 2016). Because webpages initially had only static content and no interactive platforms, the information on them was dominated by company brochures and catalogues; users could only communicate with those companies by using a phone number or address.

However, the emergence of the social web revolutionised information sharing and retrieval (Christian Fuchs et al., 2010). O'Reilly (2008) submitted that Web 2.0 implies the continuous improvement of a system as a result of use through the network effect. Some studies have held that this later advancement gave way to the emergence of social media (Constantinides & Fountain, 2008; Cooke & Buckley, 2018). While many definitions of social media abound (see Fuchs, 2017), the most relevant to this study (by Albarran, 2013, p. 2) considers it 'the technologies or applications that people use in developing and maintaining their social networking sites (SNSs). This involves the posting of multimedia information (e.g. text, images, audio, video), location-based services (e.g. Foursquare) and gaming (e.g. Farmville, Mafia Wars)'. Interestingly, some scholars have argued that social media is not new, but its presentation and usage patterns in the recent past seem to be the driving force behind its ubiquity in contemporary times (C. Fuchs, 2017; Scholz, 2008). Specifically, Fuchs (2017) has stated that early blogs and sharing sites lacked the interactive format that present social media platforms enjoy.

Different social media platforms have gradually emerged with varying features and specific target groups. While there is no scholarly consensus on the

groupings of these platforms, what is indeed clear in the scholarly community is that different platforms are introduced for different purposes, and while some are more contextually relevant, some have general appeal across different contexts and user groups (Y. Zhang, Moe, & Schweidel, 2017). Thus, social media use is pervasive. Per a recent study that was conducted in the US, users access these platforms several times a day (see Figure 1) (Pew Research Center, 2019). The ubiquity of mobile devices has significantly contributed to this behaviour (Yap & Tan, 2017).
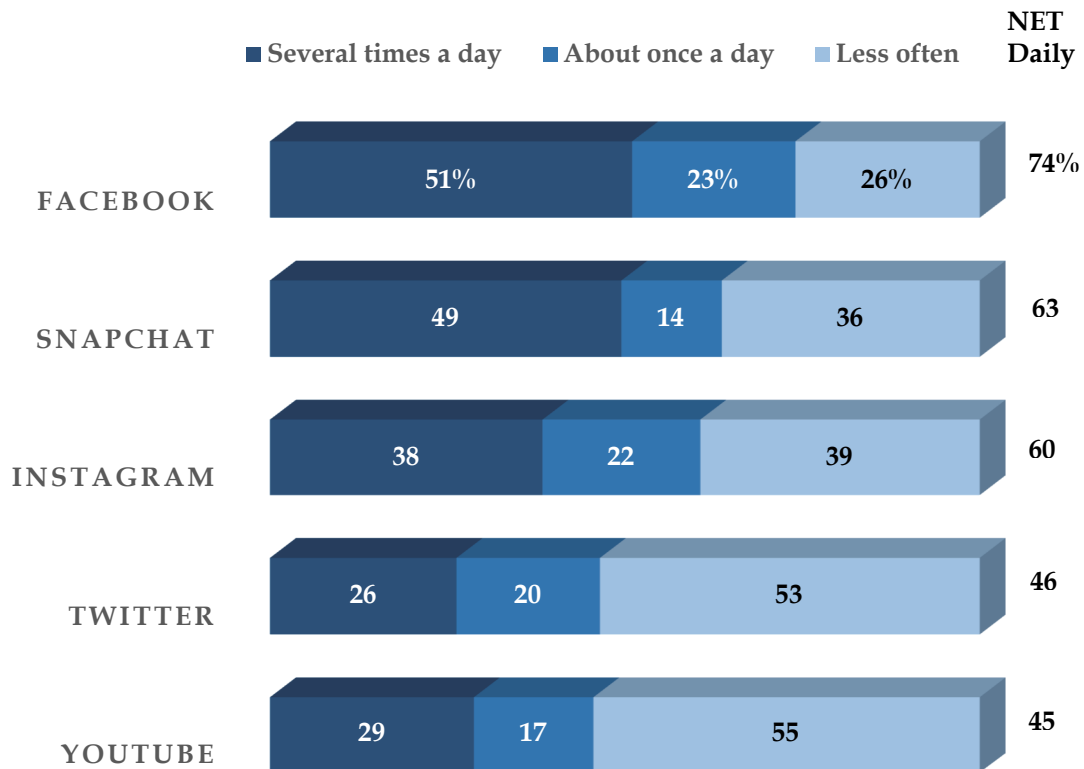
FIGURE 1 Users' daily visits to social media channels (Pew Research Center, 2019)

The theory of homophily explains that individuals are likely to associate with those whom they share certain attributes, such as gender, educational qualifications, religion, geographical location and values (Okazaki, Andreu, & Campo, 2017). Thus, users set up communities on social media to deepen these shared identities online. While some communities deepen social ties, others are formed to serve as enclaves for brand enthusiasts. Therefore, an online brand community (OBC) is defined as a 'grouping of individuals sharing a mutual interest in a brand, using electronic mediation to overcome real-life space and time limitations' (Dessart, Veloutsou, & Morgan-Thomas, 2015, p. 32). Firms' growing interest in hosting OBCs has several motivations: 1) Firms find it a veritable channel to send and receive feedback on their brands; 2) it provides a connection between current and potential customers; 3) it enhances long-term

relationships between the firm and their customers; and 4) it enhances customer brand loyalty and commitment (Chan, Zheng, Cheung, Lee, & Lee, 2014).

Online travel communities (OTCs) are also significantly impacting tourism services and consumption patterns (see Figure 2). Thus, travel sites, such as TripAdvisor, Booking.com and Expedia.com, have continued to record increasing membership subscriptions. For example, in 2018, TripAdvisor had ~730 million reviews and 490 average monthly unique visitors as well as provided 8 million+ accommodations, airlines and experiences (TripAdvisor, 2018). Others, such as Booking.com and Lonely Planet, have also recorded similar growth. At the individual level, research has highlighted that the fulfilment of consumers' psychological, social and utilitarian motives accentuates their increasing participation in these platforms (Kang, Tang, & Fiore, 2014). Psychologically, OTCs offer members fun, entertainment and pleasurable feelings (Donaire, Camprubí, & Galí, 2014; Luo & Huang, 2016). Additionally, because tourism is experience-based and emotional, discussion with others in OTCs can serve as an escape from members' social and economic tensions (Kwang Ho Lee & Hyun, 2015).

Socially, research has shown that participating in OTCs broadens members' networks of friends and, in some cases, may lead to offline connections, with some even resulting in romantic relationships (Donaire et al., 2014; Lee & Hyun, 2015; Ukpabi, Onyenucheya, & Karjaluoto, 2017). Some participants are also driven by altruistic purposes (i.e. sharing travel information is motivated by a desire to be helpful to others) (Lee & Hyun, 2018; Ting, Ting, & Hsiao, 2015). Finally, from the utilitarian perspective, most members participate to obtain travel advice in terms of the best hotels and destinations, excellent prices and good services (Donaire et al., 2014; Lee & Hyun, 2015). For companies, hosting OTCs has had profound benefits, such as improvements in destination brand awareness, trust and image (Bruhn, Schoenmueller, & Schäfer, 2012; Kang et al., 2014). Evidence has also shown that destinations and hotels that host OTCs as a relationship marketing strategy have higher chances of fostering patronage and customer loyalty (Jung, Ineson, & Green, 2013).

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┌─────────────────────┐
│   Online Travel     │
│ Community (OTC)     │
└─────────────────────┘
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Online Travel Community (OTC)

Firm-Hosted → → **Independent**

Motivations

Psychological Factors
- Involvement
- Entertainment
- Pleasure
- Fun
- Relaxation
- Escapism
- Flow experience

Social Factors
- Networking
- Building ties
- Relationship
  - Interest-based
  - Romantic
- Altruism

Utilitarian Factors
- Travel advice
- Good destination
- Best price
- Service quality search

Community Context

Airline/hotel accommodation, events, festivals, destinations, etc.

Interaction platforms
- Forums
- Emails
- Newsgroups
- Blogs
- Chat forums
- Websites
- Destination/product review sites

Dark side

Venting negative emotions, identity theft, counter brand, alter brand, conflicts (emotional, personality, geographic)

Consumer level
- Sympathy
- Offline relationship
- Commitment
- Bond
- Trust
- Collaboration

Firm-level
- Destination brand acceptance
- Revisit
- Destination brand equity/awareness
- Customer loyalty
- Discounts
- Special price breaks

Consequences

FIGURE 2 The current state of research in OTCs (Adapted and modified from Ukpabi et al., 2017, p. 609)

1.2 Research Motivation

The web has brought emancipatory powers to both individuals and communities. While the global population is 7.6 billion, Internet users have risen to 4.2 billion—or more than 50% of the world's population (InternetWorldStats, 2019). On March 12, 2019, the world celebrated 30 years of the World Wide Web.

To commemorate this anniversary, its inventor, Sir Timothy John Berners-Lee, stated the following (World Wide Web Foundation, 2019):

> The web has become a public square, a library, a doctor's office, a shop, a school, a design studio, an office, a cinema, a bank, and so much more. Of course, with every new feature, every new website, the divide between those who are online and those who are not increases, making it all the more imperative to make the web available for everyone. And while the web has created opportunity, given marginalized groups a voice, and made our daily lives easier, it has also created opportunity for scammers, given a voice to those who spread hatred, and made all kinds of crime easier to commit.

With different uses and applications of the World Wide Web, social media has become a critical component of this innovation. From a consumer's perspective, psychological, social and utilitarian reasons accentuate the growing attention to social media, which has become an inseparable part of daily life. With access through personal computers and mobile devices, such as smartphones and tablets, social media has liberalised communication between one person and another. In some social media platforms, users can create groups or communities of 3 to 200 or more people with whom they can communicate. From a firm's perspective, social media has become a critical marketing platform because it is one of the cheapest means for achieving brand visibility (Kim, Lee, Shin, & Yang, 2017). Thus, through word of mouth (WOM), content that is shared by marketers can be visible to hundreds and millions of users within a short timeframe. Additionally, firms can utilise the power of OBCs to propagate their brands. Research within this stream is still in its infancy (Gruner, Homburg, & Lukas, 2014); however, available sources have stated that firms can advance their brands in OBCs through advertising on their websites and by hosting the communities themselves (Chi, 2011).

In recent years, the sustained growth of the tourism sector has significantly impacted the global economy. Industry reports show that tourism contributes in diverse ways to different economies. For instance, the United Nations World Tourism Organization (UNWTO) highlighted that ~1.3 billion tourists travelled the world in 2017, generating an equivalent income of 1.6 trillion US Dollars (UNWTO, 2019). Similarly, Eurostat (2019) reported that the number of people who were employed in the tourism sector in 2016 within the European Union (EU) was more than 13 million, with the majority in the accommodation sub-sector and at travel agencies. In Finland, reports from the Ministry of Economic Affairs and Employment (MEAE, 2018) and the Finnish Hospitality Association (Mara, 2018) indicate that ~140,000 people are currently employed in tourism, travel and hospitality services, generating above €5.2 billion yearly in taxation and accounting for 3.8% of Finland's GDP. These figures reflect that the tourism industry is one of the most lucrative and fastest growing industries in the world.

Digital technologies have dramatically changed consumers' buying behaviours in tourism and travel services. Thus, e-tourism, which is defined as the application of information technology in tourism, travel and hospitality services (Law, Leung, & Buhalis, 2009), has become a dominant research stream

within the tourism body of knowledge. Research within this stream explicates that, through websites (Amaro & Duarte, 2015; Kucukusta, Law, Besbes, & Legohérel, 2015), social media (Book, Tanford, Montgomery, & Love, 2018; X. (Roy) Zhao, Wang, Guo, & Law, 2015) and mobile information systems (IS) (Chang, Chou, Yeh, & Tseng, 2016), tourists now have unfettered access to information that can enhance their travel planning (Ukpabi & Karjaluoto, 2017). While websites and mobile applications are important, at least in enhancing travel searches and booking, social media platforms play a critical role in shaping consumers' perceptions of a tourism brand because most consumers read reviews of tourism and travel services prior to booking a trip (Jalilvand, Samiei, Dini, & Manzari, 2012).

Interestingly, many travel sites, such as TripAdvisor and Booking.com, provide communities where reviews can be shared among members. Additionally, with the ubiquity of mobile devices, which foster consumers' uninterrupted presence online, access to these online communities has become easier. Whether considering the perspective of domestic tourism, where everyone is classified as a tourist (at least in the booking and patronage of local tourism services) (Singh & Krakover, 2015), or on an international scale, there is a growing need for social media platforms that are populated by tourists. In addition to popular travel sites, as mentioned above, consumers have expanded travel communities to platforms that have not traditionally been considered travel sites, including Facebook Messenger, WhatsApp, YouTube and other platforms, such as Amazon Mechanical Turk, Couch Surfing, Ciao, etc. (González-Rodríguez, Martínez-Torres, & Toral, 2016; Lee & Hyun, 2015).

Against this backdrop, there is little doubt that these communities exert significant influence over consumers' buying behaviour towards tourism services (Kunz & Seshadri, 2015). To this end, in addition to the value of OTCs to consumers, the increase in firm-hosted communities espouses OTCs as strategic to the attraction, conversion and retention of consumers of tourism services. However, there are many unresolved issues in the literature. For instance, tourism is one of the leading sectors in terms of information and communications technology (ICT) acceptance and use due to the information intensive nature of the industry (Chung, Han, & Koo, 2015). Although various studies have examined general ICT use by consumers and tourism firms (Buhalis & Law, 2008; Chang et al., 2016; Kucukusta et al., 2015), it is still unclear what particularly constitutes ICT use in tourism services and the state of research outputs in those domains (Table 2).

Similarly, while there is uniformity in the literature that OTCs constitute a critical platform that aggregates consumers' feelings and views about a tourism brand (Lee & Hyun, 2015; Neidhardt, Rümmele, & Werthner, 2017), critical insights from consumer behavioural dynamics in OTCs are lacking (Sotiriadis, 2017). Additionally, opinions are divided about what constitutes acceptable travel advice from within OTCs. One strand of the literature argues that source credibility (Ayeh, 2015; Herrero, San Martín, & Hernández, 2015; Sotiriadis & van Zyl, 2013), content (Filieri, Alguezaui, & McLeay, 2015; Lin, 2007) and recipient

attributes (Chong & Ngai, 2013; Huang, Chou, & Lin, 2010; Öz, 2015) determine the acceptability of travel information. Thus, a study that provides a solid synthesis of the variables that contribute to useful travel advice will be of immense value to the literature.

As a component of social media, another critical research gap is the paucity of studies on declining participation in OTCs. Extant studies were predominantly adoption-related (i.e. they focused on intention and the benefits that are derivable by consumers' participation) (Casaló, Flavián, & Guinalíu, 2010a, 2010b, 2011, 2013). While information on the practitioner (Millington, 2015) and scholarly (Islam, Rahman, & Hollebeek, 2017) domains highlighted the increasing closures of OBCs and OTCs, individuals and companies increased their hosting of offline events as a way to engender customer engagement (CE) (Hede & Kellett, 2012). It seems that no studies have examined how these offline events contribute to customer value and how engendering CE influences continuous participation.

Table 2. Research gaps

Research gap (RG)	Methodology	Article
RG1: It is unclear from extant studies what particularly constitutes ICT use in tourism services and the state of research outputs in those domains.	Literature review comprising 71 published peer reviewed articles	Article 1
RG2: Scholarly opinions are divided about what constitutes acceptable travel information	Literature review comprising 54 published peer reviewed articles	Article 2
RG3: Lack of studies on declining participation in OTCs and how offline events contribute to customer value in the OTCs	Quantitative study comprising 251 OTC participants obtained from Amazon Mechanical Turk	Articles 3 and 4
RG4: Paucity of studies that have examined how engendering customer engagement and source credibility influence continuous participation	Quantitative study comprising 450 OTC participants from Qualtrics.com	Article 5

1.3   Research Questions

To address the above research gaps, this dissertation proposes four research questions and answers them with five articles, comprising two literature review articles and three empirical papers. Webster and Watson (2002) argued that literature reviews are a critical necessity in spotting scholarly gaps, determining theory development and providing a unified understanding of a research stream. Within the tourism domain, this dissertation discovers that some calls

that were made by extant literature review studies were not answered, even though more studies were being published. Thus, this dissertation adopts the funnel approach in the literature review articles (Berthon, Nairn, & Money, 2003; Lee & Scott, 2015). The funnel approach 'enables researchers and students to explore, classify and analyse the composition of and the dynamics of change within a body of scholarly literature' (Berthon et al., 2003, p. 55). Properly positioning this study required the understanding of the broader picture of ICT tools in tourism. With this broader understanding, studies could be grouped based on their relational and conceptual connections. Accordingly, the present dissertation seeks to contribute to existing knowledge on OTCs by identifying the factors that influence consumers' participation in OTCs, understanding the value of offline activities and espousing critical factors that engender CE for continuous participation. As such, the following research questions are addressed:

1. **What are the components of ICT platforms in tourism services, and what is the state of the research in these platforms?**

2. **What factors influence the acceptability of travel information?**

3. **What are the roles of offline activities on customer value in the OTCs, and how do consumer characteristics and participation modes influence their use of OTCs?**

4. **What roles does source credibility play in customer motives and in customer engagement and continuous participation in OTCs?**

Answering research question one requires a thorough examination and synthesis of extant studies that address ICT in tourism services. Consequently, this dissertation undertook a systematic and comprehensive literature review to understand the state of scholarly output in ICT use in tourism. Specifically, the literature review was firstly undertaken because ICT adoption and use in consumer services is an ever-dynamic phenomenon, and different studies approach these ICT tools in diverse ways; thus, a literature review was required to provide a state-of-the art understanding of this domain (Webster & Watson, 2002). Notably, due to the varieties of these tools, there was no clear understanding of what constituted them and the extent of the research in each domain. Accordingly, Article 1 responded to Buhalis and Law's (2008) call for the grouping of these tools. Secondly, previous literature reviews within the domain had specifically called for studies that would address the geographical spread of research in ICT use in tourism (Law et al., 2009), which could provide an understanding of how different countries fare in the application of these tools. Finally, among the 12 extant literature review studies that have looked at the dimensions of ICT use in tourism, there was an apparent gap regarding how

different theories, models and frameworks were applied. Thus, in answer to Law, Buhalis, and Cobanoglu's (2014) call, the current study examined the theoretical foundations, models and frameworks that underpinned these studies.

After successfully completing Article 1, this dissertation curiously found that, while many studies had examined the use of websites by firms and individuals in tourism, few had explored consumer-based factors influencing the use of social media in travel planning. A critical attraction of membership in OTCs is the helpfulness of the travel information that is available in these communities (Lee, Law, & Murphy, 2011). With the funnel approach, it was discovered that the attributes of helpful travel information were treated differently in different studies. Thus, it became necessary to conduct another literature review to clarify these differences. To this end, Article 2 provided a synthesis of the attributes of travel information.

Research question three addresses a crucial performance indicator of OTCs: Attention is beginning to shift to the hosting of offline activities as a way of boosting OTC membership (Hede & Kellett, 2012). Offline activities comprise phone calls, picnics, brand awareness campaigns and special events, which are used to connect with brand enthusiasts. Using the social presence theory and the concept of customer value creation, Article 3 proposed a conceptual framework that tests the effect of offline activities on customer value and how they influence continuance and the recommendation intention of OTC members. Similarly, Article 4 further expanded the findings of Article 3 by providing analyses of customer segments and their behavioural dynamics in the OTCs.

Researchers and practitioners are increasingly showing interest in CE, which fosters customer satisfaction, positive WOM and loyalty (Brodie, Ilic, Juric, & Hollebeek, 2013; Dessart, Veloutsou, & Morgan-Thomas, 2016) and its measurement provided in the tourism domain (Harrigan, Evers, Miles, & Daly, 2017; So, King, & Sparks, 2014). However, knowledge is scarce that have examined the influence of source credibility on CE. Thus, Article 5 answered the fourth research question by building a conceptual framework that examines the influence of source credibility on customer motives and CE with continuous participation as the behavioural intention.

In conclusion, it is notable that, while this dissertation intended to examine consumers' use of ICT tools in tourism, it was a thrilling experience to anchor the discussion within the immersive domain of social media (i.e. the topics that formed the articles were not thought out from the beginning but emerged as an iterative process based on the progress made on the literature search and synthesis). Importantly, the two literature review studies were fundamental to the success of the other studies in that they not only opened up research gaps but also highlighted areas that were desperately in need of attention based on contemporary practitioners' challenges.

1.4 Dominant Concepts

1.4.1 Online brand communities

Muniz and O'Guinn (2001, p. 412) defined a brand community as 'a specialized, non-geographically bound community, based on a structured set of social relationships among admirers of a brand'. From the participants' perspective, brand communities have powerful cultures, and individuals participate for different purposes and expectations (Muñiz Jr. & Schau, 2005), with the Internet transforming the community experience (Sicilia & Palazón, 2008). The Internet has given consumers more options for both how and when to participate and what to expect from the community. For instance, Madupu and Cooley (2010) identified five motives for participation: information, self-discovery, social integration, social enhancement and entertainment. They argued that, by participating in OBCs, members receive and share information among themselves. This pool of information (Cheung, Liu, & Lee, 2015) and its sustainability (Belanche, Casaló, Flavián, & Guinalíu, 2019; Casaló, Flavián, & Guinalíu, 2007; Lin, 2007) are attractive to others.

The self-discovery motive implies 'interacting with other members to obtain social resources and attain future goals' (Madupu & Cooley, 2010, p. 7). Social interactions enhance an individual's discovery of self-values (Seo, Kim, & Yang, 2016) and help in attaining one's goals (Hamari, Hassan, & Dias, 2018).

By contrast, the social integration motive refers to 'members' need for interacting with other members of the OBC for social support, friendship and intimacy' (Madupu & Cooley, 2010, p. 8). By communicating with one another, individuals' knowledge of others is enhanced, and intimacy subsequently grows. Additionally, the group provides different kinds of support that can aid an individual during critical periods, such as times of loneliness (Chopik, 2016), stress (Camara, Bacigalupe, & Padilla, 2017), unemployment (Buettner, 2016) and bereavement (Hartig & Viola, 2016).

Similarly, the social enhancement motive, per Dholakia, Bagozzi, and Pearo (2004, p. 244), 'is the value that a participant derives from gaining acceptance and approval of other members and the enhancement of one's social status within the community on account of one's contributions to it'. Several studies have highlighted a psychological motive for status, recognition and respect that members get from participating in the community (Chan et al., 2014; Kang, Lee, Lee, & Choi, 2007; Zaglia, 2013). Identifying this psychological lever is about determining how firms recognise individuals' contributions to their OBCs. For instance, TripAdvisor uses an incentive hierarchy method to identify levels and grades of individuals that contribute reviews to its platform (Liu, Schuckert, & Law, 2015, 2018). Contributors' rankings are indicated by the levels of the badges that they are awarded.

Finally, the entertainment motive is another critical determinant of participation in online communities. Contextually, entertainment implies those

activities in the community from which members derive fun, pleasure and enjoyment (Madupu & Cooley, 2010). Some studies have highlighted that these activities lead to a flow experience (Carvalho & Fernandes, 2018; Kaur, Dhir, & Rajala, 2016), stickiness and continuous participation (Bao & Huang, 2018; Han, Wu, Wang, & Hong, 2018). From the firms' perspective, OBCs are a critical place for engagement (Brodie et al., 2013; Gong, 2018; Hollebeek & Macky, 2019), co-creation (Kamboj, Sarmah, Gupta, & Dwivedi, 2018; Rialti, Caliandro, Zollo, & Ciappei, 2018) and innovation (Dahlander, Frederiksen, & Rullani, 2008; Marchi, Giachetti, & De Gennaro, 2011). Prominent companies, such as Coca-Cola (Pansari & Kumar, 2017), Dell (Hossain & Islam, 2015) and Apple (J. Wu, Huang, Zhao, & Hua, 2015), have strong OBCs. These companies utilise customer views and opinions on their OBCs to remain competitive by producing products and providing services that meet the needs of their customers.

For the purpose of this dissertation, OBCs are viewed in a broader sense and include all social media platforms, online forums and emails, which serve as a channel in which firms can interact with their customers to garner a better understanding of consumers' feelings about their services and elicit responses that engender service or product improvement.

1.4.2 Online travel community

OTCs and OBCs exist in the online space and form the broader conceptualisation of online communities (N. Y. Jung, Kim, & Kim, 2014; Kamboj & Rahman, 2017a, 2017b). In Figure 3, Sicilia and Palazón (2008) highlighted that the Internet has transformed brand communities into OBCs. Thus, this dissertation expands the argument by highlighting that, while OBCs are for general brands, OTCs are concentrated around tourism-related services, such as tourism, destination, hospitality, travel, vacations, events and leisure (Gao, Bai, & Park, 2017), and they are referred to by different names, such as social media community in tourism, Web 2.0-enabled community in tourism, virtual community in tourism, online tourism community, virtual space in tourism and tourist online community (Dickinson et al., 2017; Dippelreiter et al., 2009; Sanchez-Franco & Rondan-Cataluña, 2010). This dissertation thus defines OTCs as a group of people with a structured organisational format who are motivated by promoting and advancing tourism and travel products for the mutual benefit of all via information sharing on an online platform. OTCs exist on travel booking sites (TBSs) and agency sites, such as TripAdvisor, Expedia and Booking.com (Muñoz-Leiva, Hernández-Méndez, & Sánchez-Fernández, 2012), SNSs (Lee & Hyun, 2016) and blogsites, email lists and forums (BELFs) (Kunz & Seshadri, 2015). As the core of this dissertation, OTCs will be discussed in further detail in subsequent chapters.

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                    COMMUNITY                          VIRTUAL
                                                       COMMUNITY

        ┌─────────────────────┐              ┌─────────────────────────┐
        │  Social identity    │              │ Geographically-dispersed │
        │  Group norms        │   INTERNET   │        members           │
        │  Sense of duty      │ ═══════════▶ │ Dynamic network of       │
        └─────────────────────┘              │    relationships         │
                                             └─────────────────────────┘
             ┌──────────┐                          ┌──────────┐
             │  BRAND   │                          │ VIRTUAL  │
             │COMMUNITY │                          │  BRAND   │
             └──────────┘                          │COMMUNITY │
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COMMUNITY

Social identity
Group norms
Sense of duty

INTERNET

VIRTUAL COMMUNITY

Geographically-dispersed members
Dynamic network of relationships

BRAND COMMUNITY

VIRTUAL BRAND COMMUNITY

Group of people that possess a common interest in a specific brand

Group of individuals with a common interest in a brand who communicate with each other electronically in a platform provided by the company

VIRTUAL COMMUNITY

Geographically-dispersed members
Dynamic network of relationships

ONLINE TRAVEL COMMUNITY

Group of individuals with a common interest in tourism, travel and hospitality who communicate with each other electronically in a platform provided by either independent individuals or a company

FIGURE 3 Transformations in brand communities (Adapted from Sicilia & Palazón, 2008, p. 258)

1.4.3 Customer motives

Consumer behaviour theorists underpin the critical place of motivation theory in understanding the different facets of consumer motivations (Li, Liu, Xu, Heikkilä, & Van Der Heijden, 2015; Zhang & Benyoucef, 2016). There are different types and applications of motivation theories (Rudolph, 2016); however, the underpinning principles of these theories are 'that either people

are driven by the desire to satisfy their needs . . . or their behaviour is directed at the achievement of relevant goals' (Parker & Mathews, 2001, p. 39). Among the motivation theories, the uses and gratification perspectives have enjoyed prominence as the underlying motives in consumers' acceptance and use of ICT (Alhabash & Ma, 2017; Ha, Kim, Libaque-Saenz, Chang, & Park, 2015; P. S. Wei & Lu, 2014), while psychosocial, hedonic, monetary and functional motives are considered critical drivers (Ifinedo, 2016; Ngai, Tao, & Moon, 2015).

1.4.4 Behavioural intentions

Fishbein and Ajzen (1975, p. 288) defined behavioural intention as 'a measure of the strength of one' intention to perform a specified behaviour'. Attracting and retaining consumers are critical challenges for administrators of OTCs. The past decade has witnessed a plethora of studies on consumers' intention to participate in OTCs. This was understandable considering that social media was still evolving, and a large portion of these studies explored consumers' attitudes towards these platforms via the technology acceptance model (TAM) for their theoretical underpinnings (Ukpabi & Karjaluoto, 2017, 2018). Research on IS acceptance is basically divided into adoption (Davis, Bagozzi, & Warshaw, 1989; Venkatesh, Morris, Davis, & Davis, 2003) and post-adoption or continuous use (Tam, Santos, & Oliveira, 2018; T. Zhou, 2013). Researchers have examined consumers' intention at the introduction of an IS because consumers form their attitude towards that piece of information technology by being exposed to it through either contact with its users or commercials. However, studies on continuous use have mostly examined users' intention to continue using the IS based on their experiences with it. In social media and OTC research, these behavioural dispositions are generally termed participation (for adoption intention) and continuous participation (for continuous intention).

1.5 Study Outline

This dissertation is divided into two major sections. The first section contains the introduction, theoretical background, methodology and discussion, which are subdivided into five chapters, while the second section provides the articles that form the dissertation (see Figure 4).

The first section begins with Chapter 1 (introduction), which explains the background of the study and highlights the current state of research in the domain. It also espouses the research motivation and gap and identifies the research objectives. It further raises research questions and outlines the process of the dissertation and its scope. This sub-section concludes with the definition of the dominant concepts that form the dissertation.

Chapter 2 delves into the literature review, beginning with an overview and the conceptualisation of OTCs. This section also provides a typology of OTCs and follows with the theoretical underpinnings of the dissertation. Furthermore,

Chapter 2 examines the role of OTC customers' pre-, during and post-trip experiences. It examines the role of OTCs on the patronage of tourism products as well as critical factors underpinning continuous participation and concludes with impediments to continuous participation.

Chapter 3 provides the methodological orientations of the research. This section starts with the juxtaposition of the different philosophical orientations, such interpretivism vs positivism; ontology vs epistemology; inductive vs deductive; and qualitative vs quantitative. It further identifies the philosophical and methodological orientations on which the dissertation is anchored. This section continues with discussions on sample and data collection and how the data were analysed.

Chapter 4 summarises the articles that form this dissertation and highlights their findings.

Finally, Chapter 5 provides the discussion of the findings and the theoretical and practical implications, identifies the limitations of the study and concludes with remaining gaps that will require further research.
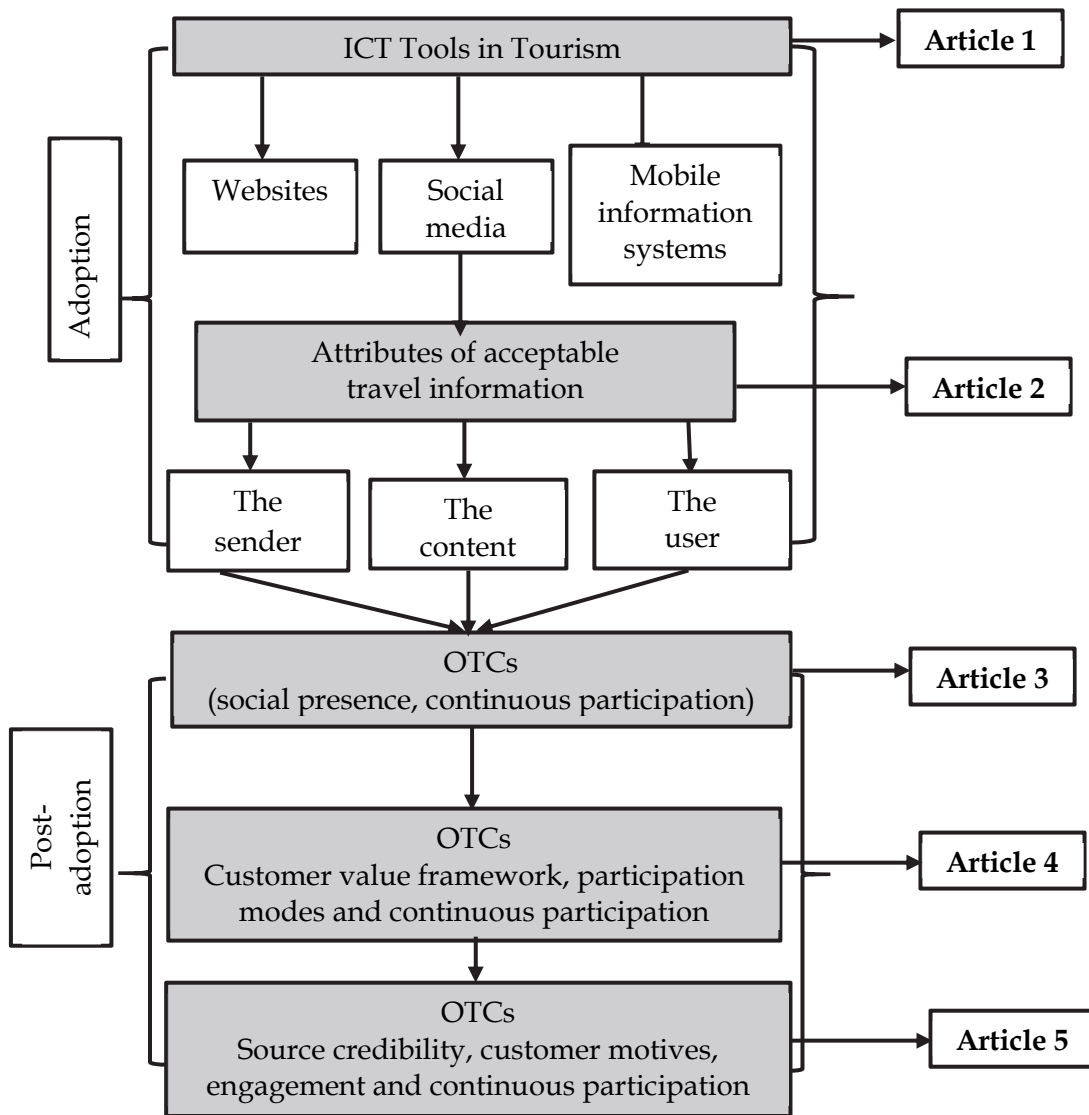
FIGURE 4 The interconnection of the articles in this dissertation

2 LITERATURE REVIEW

This chapter provides the conceptualisation of OTCs and the theoretical foundations of the dissertation. It also presents selected studies on OTCs to highlight how different platforms have been used in extant OTC studies. Furthermore, thematic categorisation of OTCs is provided based on a bibliometric analysis of extant studies. This chapter also discusses how different OTC platforms influence the different stages of the consumer decision-making process. Finally, this section provides the conceptual framework that guides this dissertation.

2.1 Conceptualisation of Online Travel Communities

ICT has fundamentally transformed the tourism industry (Ukpabi & Karjaluoto, 2017). In the past, tourists obtained travel information only through traditional media outlets, such as newspapers, radio, television or flyers from suppliers (Zhou & Wang, 2014). The emergence of ICT has liberalised the availability of travel information and has helped consumers make better travel choices via digital comparisons of different offers from various suppliers (Sparks & Browning, 2011). Travel websites also provide contact information if additional details are needed (Jeon, Jang, & Barrett, 2017). However, a critical limitation of travel websites on the Web 1.0 platform was that the information was mono-directional (i.e. there was no real-time interaction between consumers and suppliers on websites) (Choudhury, 2014). Interestingly, the emergence of the social web, particularly social media, has fundamentally revolutionised online information sharing and retrieval (Muñoz-Leiva et al., 2012). Social media offers a democratised platform that provides access to product-related information from the dual lens of marketers and independent reviewers (Sotiriadis, 2017). Marketers' product-related information is positively valenced to promote their products, but consumers can offer independent and unbiased assessments of their consumption experiences (Sparks & Browning, 2011). This has led to the

growth and popularity of travel review sites. Brand communities, in which brand enthusiasts promote and advance a brand (Dippelreiter et al., 2009), have existed for some time. The effect of such communities can valorise a brand and attract new group members (Cova & White, 2010). Social media has eliminated the challenges that often mitigated identification with fellow brand adherents, which has created opportunities to coalesce around a brand without the limitations of time and/or distance (Ukpabi & Karjaluoto, 2018). As a result, virtual brand communities have witnessed phenomenal growth over the past decade (Elliot, Li, & Choi, 2013; Qu & Lee, 2011).

Consumers in tourism and hospitality services continuously explore the best travel options to suit their travel interests (Wang & Fesenmaier, 2004; Zhao et al., 2015). Social media platforms thus provide the consumer with a community in which those with similar travel interests share their experiences, offer travel advice and sometimes extend online community comradery to the offline context (Chung & Buhalis, 2008; Zhao, Stylianou, & Zheng, 2013). However, a thorough search of the literature has exposed a conceptual lack of clarity regarding the understanding of OTCs. For example, some studies have used the term OTC interchangeably with the use of social media for travel-related purposes (Munar & Jacobsen, 2014), user-generated content (Ayeh, Au, & Law, 2013b) and online travel sites (Lee et al., 2011).

Per the Oxford English Dictionary (2017), a community is 'a group of people living in the same place or having a particular characteristic in common'. McMillan and Chavis (1986, p. 9) contended that a community has four cardinal elements—membership, influence, integration and the fulfilment of needs and shared emotional connection—and they argued that membership implies a 'feeling of belonging or of sharing a sense of personal relatedness'. The authors defined influence as a 'sense of mattering, of making a difference to a group, and of the group mattering to its members', while integration and the fulfilment of needs include understanding that one's needs as a member of the community will be met by the resources of the community' (McMillan & Chavis, 1986). Finally, they described a shared emotional connection as 'the commitment and belief that members have shared and will share history, common places, time together, and similar experiences'. They further posited that a community can either exist in a geographic neighbourhood or be dispersed; however, shared characteristics bind community members (McMillan & Chavis, 1986).

Therefore, this dissertation argues that merely sharing travel experiences, offering travel advice and reviewing a few social media and/or travel sites does not qualify one to belong to an OTC. This is because some consumers who read online reviews of travel and hospitality products do not share a sense of attachment to the review platform because they lack a registered account with the site; they merely use the site to make the best travel decisions. Therefore, this study defines an OTC as a group of people in a structured organizational format who are motivated to promote and advance tourism and travel products for the mutual benefit of all via information sharing on an online platform. Although online travel sites, such as TripAdvisor, Fodor, Qunar, VirtualTourist and Lonely

Planet, are well-known, they alone do not constitute OTCs. However, OTCs cannot exist without such platforms. With this understanding, this study argues further that OTCs exist on other social media and messaging applications that are not traditionally considered travel sites, such as Facebook (Kang et al., 2014; Wang, 2016), Couch Surfing (Kunz & Seshadri, 2015), Amazon Mechanical Turk (Lee & Hyun, 2015), Ciao (González-Rodríguez et al., 2016) Flickr, LinkedIn, WhatsApp and Myspace. Therefore, a typology of OTCs has become necessary.

2.2   Theoretical Foundations

This dissertation thrives on existing theoretical conceptualisations. Inspiration was drawn from existing theories, models and frameworks. However, while some of the core theoretical underpinnings have been examined sparingly in extant research, others have yet to be applied in the context of OTCs (see Table 3). The theoretical foundations of this dissertation are discussed below.

2.2.1 Social presence theory

The value of OTCs to firms and individuals can be optimised by exploring the role of social presence. Short, William, and Christie (1976, p. 65) defined social presence as the 'degree of salience of the other person in the interaction and the consequent salience of the interpersonal relationships . . .' The social presence theory holds that the quality of the communication media is critical in determining how individuals interact and in understanding both verbal and non-verbal cues. Communication partners mostly prefer a communication medium that conveys intimate features and a degree of closeness between them (Gunawardena, 1995). Key concepts in explaining social presence theory include intimacy and immediacy (Short et al., 1976). Intimacy includes indicators of close proximity between communicators, such as distance, dress, eye contact, smiling and topic of conversation, while immediacy comprises the psychological barriers between the communicator and his/her object of communication (Gunawardena, 1995; Lowenthal & Snelson, 2017; Osei-Frimpong & McLean, 2018). Social presence theory has been prominent in traditional communication research (Biocca, Harms, & Burgoon, 2003; Jahng & Littau, 2016; Yoo & Alavi, 2001) and education (H. J. So & Brush, 2008; Wise, Chang, Duffy, & Del Valle, 2004). The Internet has opened a vast frontier for researchers on which to apply it in online learning environments (Wang & Antonenko, 2017; Weidlich & Bastiaens, 2017) and social media (Pongpaew, Speece, & Tiangsoongnern, 2017). Experts have suggested that computer-mediated communication lowers social presence due to the absence of physical cues (Ho & Mcleod, 2008; Ogara, Koh, & Prybutok, 2014). Within the context of OTCs, the need for intimacy and immediacy is critical because they fulfil the social and psychological needs of members (Lee & Hyun, 2015). Thus, this dissertation argues that introducing offline activities will greatly enhance consumers' social, hedonic and utilitarian value in the community.

2.2.2 Customer value theory

Customer value is critical to consumers because the positive or negative experiences that consumers derive from a consumption context depend on the value derived from it (Yonggui Wang, Lo, Chi, & Yang, 2004). Although several definitions of customer value abound in the literature (Holbrook, 2005; Woodall, 2003), one of the most popular conceives it as 'the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given' (Zeithaml, 1988, p. 14). The concept of value is a central theme in firm-customer relationships, and understanding its dynamics is critical for a firm's survival. Research has distinguished two meanings of customer value (Smith & Colgate, 2007; Woodall, 2003): customer perceived/received value and customer lifetime value. Inasmuch as customer lifetime value is important for the survival of a firm, the concentration of this dissertation is on customer perceived value. Research has also documented different typologies of customer value in different research contexts. For instance, Chen and Wang (2016) proposed enjoyment value, economic value and relational value in an online check-in system and found that these three value propositions positively influenced system satisfaction. Similarly, Tseng, Cheng, Li, and Teng (2017) proposed functional value, social value and self-expressive value while testing customer loyalty to an instant messaging mobile application and found that those three value typologies were positively related to customer loyalty.

Within the social media body of research, various studies have examined customer value from different perspectives. For instance, Lee, Kim, Chung, Ahn, and Lee (2016) explored the role of customer value in group buying on the platform of social commerce. Similarly, in examining the role of the three components of customer value (customer lifetime value, customer influencer value and customer knowledge value), Hamilton, Kaltcheva, and Rohm (2016) argued that creating an immersive experience on social media must be accompanied by features that aid direct purchasing to create benefits for the firm. In an OTC context, customers are motivated by different benefits that they hope to derive from consumption. Identifying and fulfilling these expected benefits are critical for ensuring continuous participation.

This dissertation's adoption of customer value as one of the theoretical foundations is embedded in the assumption that online platforms provide consumers with multiple options to fulfil their social, informational, psychological and hedonic motivations (Kang et al., 2014). Thus, the fulfilment of these motivations enhances consumers' value, deepens their engagement and influences stickiness to the platform (Zhang, Guo, Hu, & Liu, 2017).

2.2.3 Uses and gratifications theory

Over the past decade, researchers have increasingly utilised the uses and gratifications theory (UGT) to examine a consumer's different uses and gratification from social media (Korhan & Ersoy, 2016; J. Phua, Jin, & Kim, 2017; Shao, 2009). Originally, Katz, Blumler, and Gurevitch (1974) propounded the theory to explain how people use media to gratify their needs; the motivations of individual media behaviour; and the consequences that follow from needs, motivations and behaviour. The UGT is considered a psychological communication perspective that examines both why and how the audience is interested in certain media to fulfil their emotional and utilitarian needs and the gratifications that they derive from its usage and access (Chiu & Huang, 2015; Luo, Chea, & Chen, 2011). The theory stresses the relationship between the motives for using the media, the media features, gratification and repetitive behaviour (Chiu & Huang, 2015). The framework has been applied to various media, such as newspapers (Jere & Davis, 2011), radio (Rosales, 2013) and television (Brown, Lauricella, Douai, & Zaidi, 2012). This dissertation's application of the UGT is underpinned by consumers' different motivations to participate in OTCs. Thus, the need to fulfil these motivations drives their engagement on OTC platforms. While there are different conceptualisations in testing the UGT in various contexts (Gallego, Bueno, & Noyes, 2016; Li et al., 2015; Malik, Dhir, & Nieminen, 2016), this dissertation considers the typologies of Ben-Shaul and Reichel (2018) and Kang et al. (2014), including psycho-social value, functional value, hedonic value and monetary value, relevant to the OTC context.

2.2.4 Customer engagement

Another theoretical foundation of this dissertation is CE, which is defined as the repeated interactions that the consumer has with the brand, which influence the emotional, psychological and behavioural responses to that brand (Brodie, Hollebeek, Jurić, & Ilić, 2011; Brodie et al., 2013). Algesheimer, Dholakia, and Herrmann (2005, p. 21) defined brand community engagement as 'positive influences of identifying with the brand community through the consumer's intrinsic motivation to interact or co-operate with community members'. Specifically, the concept has become even more relevant in OTCs, where a high level of interactivity fulfils members' unique interests (Belanche et al., 2019); thus, engagement with the community is a consequence of the fulfilment of their social, emotional and informational needs (Dessart et al., 2015; Hollebeek, Juric, & Tang, 2017). This implies that motivational drivers accentuate CE (Brodie et al., 2011; Dessart et al., 2016). Current knowledge has established that CE is a psychological process that drives customer value and loyalty (Bowden, 2009; Brodie et al., 2011). Research has also reported other drivers, including involvement (Brodie et al., 2013) and personality factors (Islam et al., 2017). Thus, this dissertation defines CE as consumers' motivational drivers to share and co-create experiences of tourism and hospitality services on online platforms.

Table 3. Selected studies on OTC, including the key theories and platforms examined

Study	Aim/objective	OTC platform	Key theory/ model/ framework	Variables		Key findings
				Dependent variable(s)	Independent variables	
Muñoz-Leiva et al., 2012	To understand consumers' behavioural intentions to use a blog via TripAdvisor and the Facebook community page of a hotel	Blog, TripAdvisor and Facebook	TAM	Intention	Trust, usefulness, attitude, ease of use	Members who use the hotel's Facebook and TripAdvisor communities find them useful; they trust these community forums based on the availability of experiences that are shared by other members. However, trust and usefulness of blogs were not significant because members felt that the available information could be manipulated by hotel management.
Ting et al., 2015	To investigate factors that influence the sharing of travel experiences through blogs	Blog	TAM	Attitude, intention	Reputation, altruism, trust, communication sharing	Travel bloggers consider writing part of their job, and sharing travel experiences through blogging is a way to enhance their performance. Altruism – the desire to help others – is a key influencer of blogging travel experiences.
Kang et al., 2014	To examine the impact of functional, socio-psychological, hedonic and monetary benefits on members'	Facebook	Benefits, brand trust	Active participation, brand commitment	Functional, socio-psychological, hedonic and monetary benefits; brand trust	Members were found to spend more time on fan pages that contain entertaining features.

Source	Aim	Platform	Theory	DV	Constructs	Findings
	community participation with the Facebook travel community					Facebook fan pages were not found to be a primary outlet for promoting sale offers and product information.
						Active participation leads to reliability of brand information, which enhances both brand bond and commitment.
Wang, 2016	Based on motivational theory, this study investigated how both extrinsic and intrinsic factors influence customers' intention to utilise the Facebook travel community	Facebook	MT	Intention	Extrinsic (social influence, external rewards, cyber community utility); intrinsic (presenting oneself, perceived enjoyment); altruism	The influence of friends, close relatives, superiors and even colleagues motivates participation in the Facebook travel community. The expectation of receiving incentives and rewards also motivates participation in the community. Most users participate to meet and connect with others.
(Kunz & Seshadri, 2015)	To investigate how relationships in online community forums lead to offline interactions and enduring relationships	Couch surfing	Reputation	Trust, sympathy, willingness for an offline relationship	Community reputation, online communication, perceived similarity	Because OTCs lack face-to-face contact, individual reputations depend on both the volume and the quality of information on members' profiles. Online relationship building requires well-crafted social communication etiquette. Social gaffes online are not easily forgiven; therefore, communicators must express themselves with care. Turning online connections into offline relationships requires trust and sympathy. This is especially important

	Objective	Source	Theory	Dependent variables	Constructs/Variables	Findings
						because trust can be quantified, while sympathy is highly subjective.
Lee & Hyun, 2015	To investigate how social and emotional loneliness determine consumers' intention to belong to OTCs and follow travel advice	Amazon Mechanical Turk	Emotional expressivity	User satisfaction, intention	Social loneliness, family loneliness, romantic loneliness; identification with peer group, peer communication, user satisfaction	Lonely OTC participants highly value interactive activities that connect them to others in offline activities. Those who use OTCs for emotional and socialisation purposes are likely to follow travel advice from others.
Lee & Hyun, 2016	To identify the relationship between value creating beliefs, trusting beliefs and the moderating effect of risk aversion on solution acceptance and stickiness in an OTC	Amazon Mechanical Turk	Trust	Solution acceptance, stickiness	Social networking, community engagement, impression management; brand use; trusting beliefs Moderator: risk aversion	Trust in OTCs is developed when members who empathise and identify with others' interests share information. Unrealistic and exaggerated content that seems to brag about either travel experiences or acquisitions is highly disliked.
(Casaló et al., 2010b)	To investigate the factors that influence intention to participate in firm-hosted OTCs	Lastminute.com and other forums	TPB, TAM and SIT	Intention	Attitude, subjective norm, perceived behavioural control, perceived usefulness, perceived ease of use, identification	A firm-hosted OTC enhances members' behavioural intention to recommend the host firm to others, which could improve the firm's market share and profitability. Firm-hosted OTCs could serve as advertising platforms.
(Ku, 2014)	To investigate the influence of website design quality and design quality and	Backpackers, Eurotravel and TripAdvisor	TAM, SIT	Trust, intention	Website design quality, website service quality	OTCs have participants who play active roles in contributing to knowledge sharing.

Citation	Objective	Platform	Method	Dependent variable	Variables	Findings
	website service quality on OTC participation				Moderators: tacit knowledge, commitment	Their levels of knowledge make them reputable, and they are referenced. Because travel products are complex and hedonic, members value tacit knowledge sharing that enhances their travel decisions. Members do not consider learning how to use tools that are related to website design important; rather, they are more interested in knowledge tools that can aid their travel decisions on the website.
(Jeon et al., 2017)	To examine the mediating role between utilitarian value and online trust in the relationship between website interactivity and repurchase intention in OTCs	Amazon Mechanical Turk	SORM	Repurchase intention	Website interactivity, utilitarian value, perceived trust	A positive perception of an interactive website will build trust and active participation. OTC website reliability enhances the members' perception that their utilitarian benefits will exceed the perceived cost. Quick responses to members' concerns will build trust and recommendation intensions.
(Arsal, Backman, & Baldwin, 2008)	To examine the influence that OTC members have on travel decisions as well as the types of travel decisions that they influence	Torn Tree (Lonely Planet)	WOM	Travel decision	Accommodation, food and beverage, safety and health	OTC members' travel planning behaviours were significantly influenced by frequently visiting an online community. Destination residents were more influential on the choice of accommodation for members than was experienced travellers' advice.

(González-Rodríguez et al., 2016)	To explore the image of destinations post-visit through an analysis of community reviews	Ciao	Destination image	Revisit intention	Online reviews' impact on destination image	The perceived helpfulness of a review is based on both the quality and the expertise of the review.
						Sharing a post-visit experience about a destination has a strong influence on potential visitors.
						Through sentiment analysis, it is possible to obtain either a positive or a negative orientation of shared views.

Key: TAM – Technology acceptance model; MT – motivational theory; TPB – theory of planned behaviour; SIT – social identity theory; SORM – stimulus organism response model; WOM – word of mouth

2.2.5 Source credibility theory

Source credibility as a theory owes its origin to the elaboration likelihood model (ELM) (Hur, Kim, Karatepe, & Lee, 2017). Otherwise called the dual-route model, the ELM was proposed by Petty and Cacioppo (1984). Elaboration in the context of the ELM refers to the extent to which individuals ponder the arguments (merits and demerits) of a message (Zha, Yang, Yan, Liu, & Huang, 2018). The ELM holds that persuasion and attitude change occur via two routes: the central route and the peripheral route (Petty & Cacioppo, 1986). The central route to persuasion has to do with argument quality (i.e. the strength of the ideas and content in a message), while the peripheral route consists of source credibility (i.e. additional cues that the receiver uses to judge the message) (Hur et al., 2017; Petty & Cacioppo, 1986; Zha et al., 2018). While these two concepts have been used in traditional communication and social media research (Hussain, Ahmed, Jafar, Rabnawaz, & Jianzhou, 2017; E. H. Jung, Walsh-Childers, & Kim, 2016), the scope of this dissertation is limited to source credibility. Source credibility is defined as 'the extent to which [an] information source is perceived to be believable, competent, and trustworthy by information recipients' (Bhattacherjee & Sanford, 2006, p. 811).

Thus, the source credibility framework 'proposes that consumers are more likely to be persuaded by a message when they believe the source is highly credible' (Frasca & Edwards, 2017, p. 127). There are many conceptualisations of source credibility, including objectivity, competence, dynamism, authoritativeness, affect and character (Frasca & Edwards, 2017). However, the most prominent are expertise and trustworthiness (Ayeh, Au, & Law, 2013a; Hur et al., 2017). Expertise refers to the knowledge and experience that the source possesses, which confers authenticity to the message (Hussain et al., 2017), while trustworthiness refers to 'the degree of confidence in the source's intent to communicate the assertions they consider most valid [true]' (Ayeh et al., 2013a, p. 3). Source credibility occupies a central place in this dissertation because it influences the consumers' motives, CE and behavioural intention.

2.3 The Role of Online Tourism Communities in the Consumer Decision-making Process

When hosting OTCs, firms reap positive effects, such as increased brand awareness, functional brand image, brand use and visit intention (Casaló et al., 2010b). Jung et al. (2013) posited that OTCs present hotels and tourism firms with incredible opportunities to deepen their CE via relationship marketing. On such platforms, firms are able to obtain direct responses regarding their services, which afford them the opportunity to make amends where necessary. Similarly, satisfied members (through WOM) can act as destination evangelists. Such

messages are deemed more honest than those from marketers (Sparks & Browning, 2011).

Consumer buying behaviour constitutes the preferences, attitudes, intentions and dispositions of consumers in the purchase of a product or service. Consumers' responses to the purchase context depend on both internal and external factors. Traditionally, consumer buying behaviour was modelled into five decision-making processes: 1) problem recognition; 2) information search; 3) evaluation of alternatives; 4) purchasing decision and; 5) post-purchase behaviour (Constantinides, 2004). However, this linear approach has received significant criticism in consumer online purchase behaviour (Hall & Towers, 2017). This dissertation adopts Karimi, Papamichail, and Holland (2015), who advocated for a more flexible, iterative and dynamic process to reflect consumers' non-linearity of purchase decisions (see Figure 5). In this context, specific channels play fundamental roles in each step of the process. While the process could be longer in some purchase contexts and OTC channels, consumers may skip some steps or may not even follow the traditional steps in other channels.
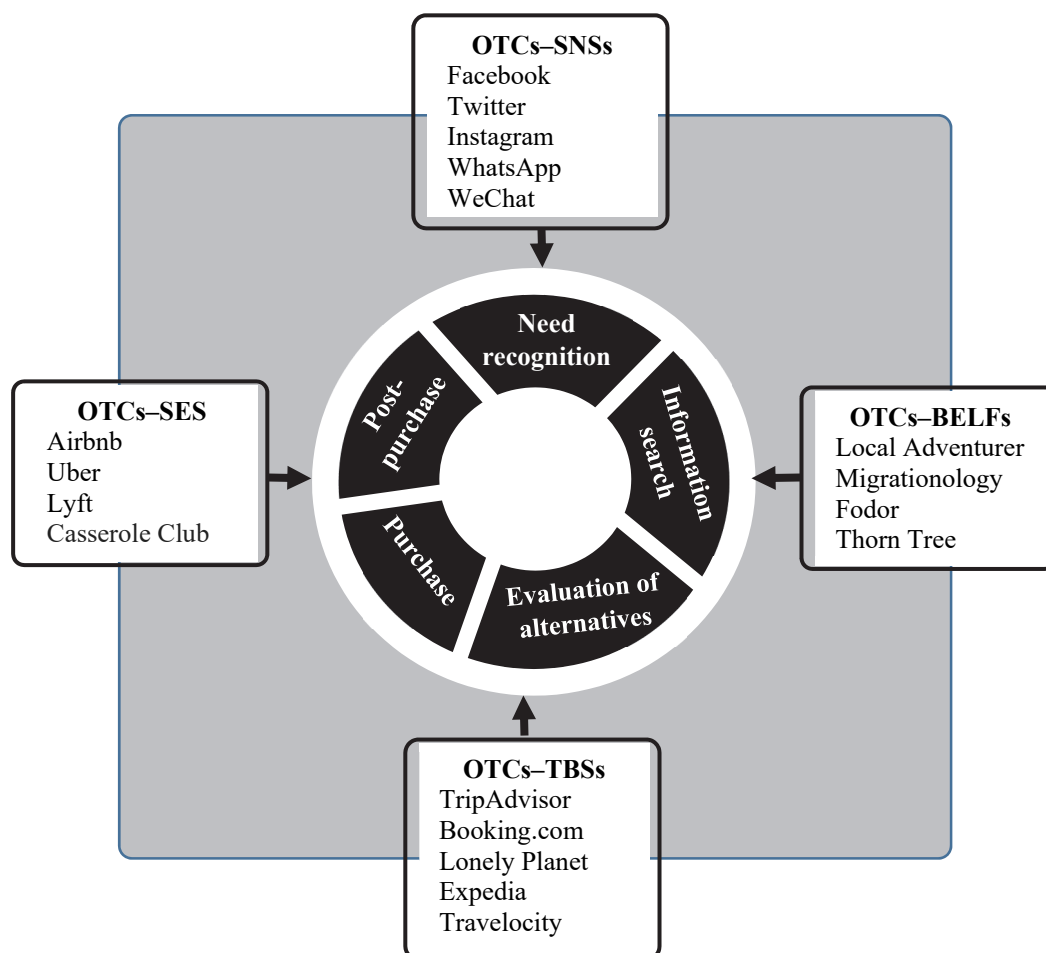
FIGURE 5 The role of OTCs in the consumer decision-making process

Need/want recognition is the first step in the decision-making process. Needs are firstly triggered either internally or externally. The former include hunger, thirst, shelter, etc., while the latter include marketing cues and circumstantial exigencies (Yadav, de Valck, Hennig-Thurau, Hoffman, & Spann, 2013). Fundamentally, content (photos, videos or blogs) that is available on OTC platforms can trigger a need, just as sharing a post-visit experience about a destination can also trigger others to visit a destination (González-Rodríguez et al., 2016). With the variety of tools available to marketers, OTC platforms present ample opportunities to activate consumers' hedonic impulses about a tourism product. OTC–SNSs and TBSs are good at triggering needs. For instance, videos that are shared on WhatsApp, Facebook or YouTube can trigger a consumer's desire to visit a destination or patronise a tourism product.

Another critical stage in the decision-making process is the information search. While all the platforms contain viable information to aid consumers' decision-making, platforms that can accommodate varieties of products from different companies are critical for showcasing these differences to consumers. For instance, TripAdvisor and Booking.com allow consumers to browse different products from multiple sources. This not only aids the information search process but also eliminates subsequent processes as the consumer can easily reach a decision, purchase and exhibit post-purchase behaviour by sharing his/her experiences in the community without accessing another channel.

When evaluating alternatives, consumers compare products and services from different sources. The comparison criteria often include price, quality and other consumers' opinions. As argued earlier, this stage is not relevant in some platforms. However, platforms like the OTC–SNS, OTC–SES and OTC–BELF allow consumers to read reviews from others and blogs on particular products. Muñoz-Leiva et al. (2012) posited that members who use hotels' Facebook pages and TripAdvisor communities find them useful; they trust these community forums based on the availability of experiences that are shared by other members.

The purchase stage is the culmination of a consumer's efforts toward reaching the best decision. The principal OTC platform at this stage is the OTC–TBS. In examining customer purchase involvement and OTC website design, Sanchez-Franco and Rondan-Cataluña (2010) proposed that, although OTC website aesthetics and ease of use increase member satisfaction, these effects are influenced by purchase involvement, the level of which further impacts members' perceptions of the usefulness of OTC websites. Additionally, according to a study by Lee, Denizci Guillet, and Law (2013), consumers prefer OTCs–TBSs to traditional hotels because of better management in terms of pricing, positive consumer comments and frequent updates in room description.

Hosany and Prayag (2013) studied tourists' post-purchase emotional types and posited that tourists fall into five post-purchase emotional groups: delighted, unemotional, negatives, mixed and passionate. Delighted consumers display a high level of joy and surprise, while those who are unemotional display below average levels of joy, love, surprise and unpleasantness. Negatives are vocal about their displeasure, while those in the mixed group express both positive and

negative emotions. Finally, those in the passionate group express the highest levels of love and have elevated levels of joy. Researchers within the domain of consumer behaviour posit that consumers usually lessen post-purchase dissonance through self-assurance, marketers' assistance (advertisements and sales force assurances) and fellow consumers, including those whom they encounter in online communities (Bose & Sarker, 2012). Book et al. (2018) argued that dissatisfied customers' negative reviews on OTCs could have a spiraling effect of dissonance on others. Alternatively, positive reviews are also critical in reducing dissonance.

2.4   Impediments to Continuous Participation

Cova and White (2010, p. 264) argued that firm-related negative effects occur in the form of counter-brand communities—'a phenomenon of aggregation against a company that manages the brand and which leads to the creation of competing brands by members of the community'—and alter-brand communities—'a phenomenon of aggregation around not-for-profit projects that nevertheless creates a brand that can compete with the brands of certain companies'. Members of these outlying communities were previously adherents of the brand, but they have drifted away due to their dissatisfaction with the firm; they propose activities and schedules that run parallel to the brand with the intent to harm its reputation. Because competing with an outlier group may further harm the brand, managers should acknowledge their existence and reach out to their administrators to pacify their grievances.

It has also been stated that some firm-hosted OTCs permit or even pay for the upload of false and defamatory comments to mislead consumers regarding the true image of some tourism firms and to denigrate the image of others (Wallop, 2010). Specifically, British regulatory authorities compelled TripAdvisor to rewrite its trust claims after it was found that nearly 27,000 reviews were defamatory (Ayeh et al., 2013a). Individual member-related negative effects include extreme verbal inhibition, aggression, denigration, bullying, privacy issues, lurking and defamatory content. As suggested by Ruiz-Mafe et al. (2016), the negative emotions that these behaviours elicit constitute psychological, social and privacy risks; therefore, OTC managers should consider incorporating technologies to diminish the possibility of deviant behaviour. One such approach is to develop a policy that strictly forbids such acts and then share it with the community's members. Similarly, an OTC's activities, including a response to offensive comments, should be managed by those who have a blend of skills, including people management and emotional intelligence. This is important for handling Internet trolls without offending members.

Interestingly, the management of OTCs is more complex than it appears. For instance, it is unclear how administrators handle the issue of dormant members. The survival of OTCs is significantly hinged on a critical mass of active members. When members' interests begin to sag, this not only affects existing

members but may send negative signals to those who are intending to join the group. This scenario portends serious danger to the existence of such a community. It is particularly challenging because firms must comply with laws that govern the protection of members' privacy information in places where such laws exist. For instance, the EU's laws require SNS administrators to set a maximum time period for accounts to be inactive before materials are deleted (Delta & Matsuura, 2002). Notably, it has not been determined, particularly in the academic literature, the extent to which compliance with such laws affects online communities in the EU. To appropriately navigate this scenario, managers can continuously revive interest by offering special discounts and rebates on products as well as special incentives to those who introduce new members to the group.

Additionally, the literature is unclear regarding how managers, especially those of independently-managed OTCs, handle members' privacy concerns. There have been allegations that some social networks allow access to members' data, which can be used by other organisations for either marketing, political or security reasons. For example, in 2015, reports emerged that Facebook allowed the United States National Security Agency, through its 'PRISM covert surveillance program', access to Facebook accounts as a security check and for monitoring those within its radar (Lillington, 2015). Recently, a more scandalous report emerged, stating that more than 87 million Facebook users' data were sold to and accessed by Cambridge Analytica to help target election advertising during the 2016 US presidential election (Statt, 2018). These and similar incidents leave OTC managers and members in a quandary over what happens to their private information. In the midst of these scandalous reports, Facebook has promised changes to protect users' data (Ingraham, 2018). National governments should also put different policies into place to safeguard users' private information online. This will shore up confidence in the platform and further encourage people to participate. The effect of this is that firms will have more robust platforms on which to engage, which will deepen their customers' experiences.

2.5   Conceptual Framework

Based on the theoretical analysis that was advanced above, this dissertation proposes a conceptual framework (Figure 6), highlighting that customers' motives drive their participation in OTCs (either firm-hosted or independent). Consumers' participation occurs within the engagement zone (i.e. where they take part in activities), and activities within this zone produce emotional responses that further deepen their commitment to the platform (Brodie et al., 2011; van Doorn et al., 2010). The positive assessment of value from the engagement activities underpins further participation and positive WOM. However, source credibility drives their participation motives and engagement

and further highlights the extent of value that the consumer derives from the platform.
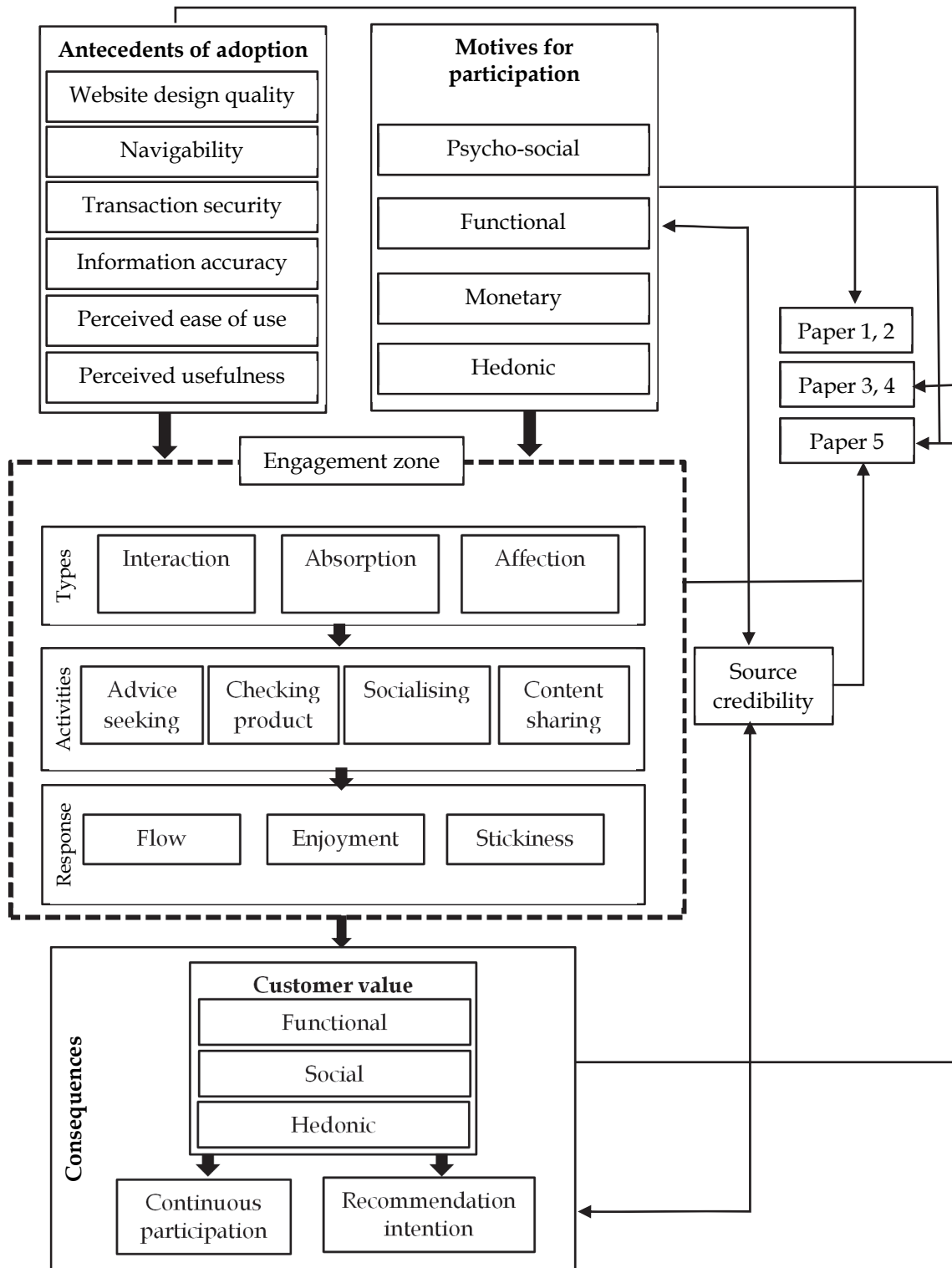
FIGURE 6 Conceptual framework of the dissertation

3 METHODOLOGY

A research methodology constitutes the beliefs and the philosophical underpinnings that guide a given research (Bryman, 2006) and provides the researcher with the proper approaches to find answers to a given research question (Kumar, 2019). This chapter discusses critical aspects of this study, including the philosophical foundations, methodologies and strategies employed.

3.1 Philosophical Assumptions

The issues of a research philosophy and its categorisations have long been hotly debated among social science scholars (Mkansi & Acheampong, 2012). Paradigm inflexibility advocates have criticized the blending of different methodological approaches in one study due to their philosophical incompatibility and different world views (Bryman, 2006; Sale, Lohfeld, & Brazil, 2002; Saunders, 2011). However, those who belong to the moderate school argue that combining different research approaches enhances one's understanding of the research and leads to balanced conclusions (Clark, Huddleston-Casas, Churchill, Green, & Garrett, 2008). Interestingly, a critical examination of the philosophical propositions revealed that most are overlapping, and the differences that exist between them are often rather thin (Mkansi & Acheampong, 2012). While there are many categorisations of research philosophies, this dissertation adopts the broad conceptualisation of the hard and soft approaches (Fitzgerald & Howcroft, 1998). Fitzgerald and Howcroft (1998) posited that the hard approach belongs to the positivist category, while the soft approach relates to the interpretivist category. They provide different philosophical levels through which these dichotomies are grouped. It is important to state that providing the definitions, background and the ideological propositions of these research philosophies is beyond the scope of this dissertation. Accordingly, Fitzgerald and Howcroft's

(1998) classifications have been summarised in Table 4 to emphasise which philosophies have theoretical relevance to this study.

Table 4 Summary of research philosophies (adapted from Fitzgerald & Howcroft, 1998)

Soft	Hard
Research paradigm	
Ontological Level	
Relativism Belief that multiple realities exist as a subjective construction of the mind	**Realism** Belief that the external world consists of pre-existent hard, tangible structures outside an individual's knowledge
Epistemological Level	
Interpretivism The belief that research findings emerge as a result of the interaction between the researcher and the research situation	**Positivism** The belief that the researcher is detached from the research situation
Methodological Level	
Qualitative Concerned with thick description; less structured; more responsive to needs and the nature of the research situation	**Quantitative** Concerned with conclusive evidence through the use of mathematical and statistical techniques to identify facts and causal relationships
Exploratory Concerned with identifying themes that exist in a given research topic	**Confirmatory** Concerned with verifying existing theory through hypothesis testing
Induction Concerned with the use of particular cases to make generalisations	**Deduction** Concerned with general results to come to specific conclusions in a given situation
Field Emphasises the need to use natural situations rather than measuring variables in a controlled situation	**Laboratory** The precise measurement of control variables

Admittedly, diving into the concept of the research paradigm is synonymous with diving into shark-infested waters. While there is controversy

(Johnson & Onwuegbuzie, 2004), its understanding constitutes a critical element of a successful doctoral inquiry (Tadajewski, 2004). Burrell and Morgan (1979, p. 23) posited that paradigms constitute 'the commonality of perspective, which binds the work of a group of theorists together in such a way that they can be usefully regarded as approaching social theory within the bounds of the same problem', and they advance four broad paradigmatic categorisations: functionalist/positivist, interpretive, critical/radical humanist and radical structuralist. Of these categorisations, much of the debate has concerned the positivistic and interpretivist philosophies (Johnson & Onwuegbuzie, 2004; Tadajewski, 2004).

Positivism aligns technically with the hard research orientation. Its tenet holds that social observations should be treated in a similar manner to that of the physical sciences (Johnson & Onwuegbuzie, 2004). This school of thought believes that the researcher (as an entity) should be objectively separated from the social observation to arrive at an objectified conclusion. By contrast, the interpretivistic school of thought argues that humans are not objects that are subjected to similar laboratory conditions; as such, 'the knower and the known cannot be separated because the subjective knower is the only source of reality' (Johnson & Onwuegbuzie, 2004, p. 14). This school argues that social sciences research makes more meaningful conclusions when the researcher is involved in the process that led to those conclusions. However, a mixed methods (mid-level) approach has emerged, which neither supports the puristic views of the positivistic school nor condones the latitudinarian conformity of interpretivistic researchers. Johnson and Onwuegbuzie (2004) further suggest that post-positivism describes the modern positivistic school.

Woven within these philosophical views are the concepts of ontology and epistemology. Ontology is a philosophical assumption that considers what constitutes reality (Scotland, 2012) (i.e. What is knowledge? What sorts of realities exist in the social world? Do these realities exist as independent entities? Can they be influenced, or are they absolute, irrespective of whether humans believe in them?). The two main ontological standpoints include realism and relativism. Realism holds that objects are externally existent, irrespective of people's views or whether they understand them (Cohen, Manion, & Morrison, 2007). Conversely, relativism holds that reality is socially constructed and primarily depends on individuals, contexts and/or circumstances (Scotland, 2012).

On another level, epistemology is related to how knowledge can be understood (Scotland, 2012) (i.e. the methods through which knowledge is acquired). The two main types of epistemology are positivism and interpretivism/subjectivism. Positivism holds that the physical and the social world are governed by laws, which allow elements of reality to be segregated into causes and effects (Hirschman, 1986). Notably, if the researcher is independent of the phenomenon, it can produce generalisable results across both time and the context. Among the many criticisms of the positivism school of thought, Kincaid (1998) submitted that, because scientific evidence involves theoretical assumptions, separating the theory from the observation causes the

observational evidence to lack epistemic status. To this end, interpretivism holds that the researcher cannot be detached from the process because the social reality is intentionally constructed, and there is nothing like absolute truth (Hjørland, 2005).

3.2 Critical Realism as a Research Philosophy

Critical realism resolves the tensions that are generated by the positivistic and interpretivistic pillars (Smith, 2006). Critical realism aligns with the position of the positivist by recognising the natural world but also holds the views of the interpretivist by proposing that the natural world is shaped by events and activities of the social world (Wikgren, 2005). In practice, critical realists are concerned with causality and the identification of the causes of a social phenomenon, unlike traditional positivists and classical interpretivists, who see no need for science (Smith, 2006; Wikgren, 2005). The critical realism movement was founded on the argument of(Bhaskar, 1978), who proposed that reality constitutes three domains: empirical, actual and real. Bhaskar (1978) argued that experiences happen in the empirical domain; events occur in the actual domain; and causal mechanisms follow in the real domain. Thus, human knowledge is limited. At the methodological level, critical realists use hypotheses to test relationships, which are either accepted or supported. Ontologically, Smith (2006) argued that critical realism is the best-suited philosophical assumption in information sciences research.

Accordingly, among the philosophical assumptions adduced above, this dissertation aligns with the critical realism school of thought. Considering that this dissertation is a hybrid of ISs, marketing and tourism, its core tenet is that there exist mechanisms that influence consumers' motivations, engagement value and continuous participation in OTCs. However, these mechanisms are shaped and expressed by both the natural (ISs) and the social processes (interactions in these communities). Additionally, as argued by Bhaskar (1978), a hypothesis is adopted to either support or reject the underlining propositions that have been put forward to uncover these mechanisms.

Regarding the research method, the quantitative approaches hold that social sciences inquiry should be treated like the natural sciences, wherein laws are generalisable and outcomes are reliable and valid (Johnson & Onwuegbuzie, 2004). Conversely, the qualitative method holds that it is difficult to differentiate causes and effects; as such, social actors are intertwined with realities, and the underlining mechanisms of causes and effects can only be discovered through interactions (Johnson & Onwuegbuzie, 2004). From a critical realist point of view, both quantitative and qualitative methods are acceptable insofar as there is justification for their use (Mcevoy & Richards, 2006). This is based on the principle that methods should be dictated by the nature of the social inquiry. Thus, a critical realist is much more concerned with how these methods are used in a given research problem.

3.3 The Research Process

The rapidly diffusing and pervasive use of ICT tools has given consumers many options for accessing different services. Therefore, they can share their experiences, offer advice and recommend choice brands to others (Shaikh & Karjaluoto, 2015a). Through extensive reading, this dissertation found that, while OBCs are popular within the marketing domain, there are few studies on OTCs. As pointed out by Belanche, Casaló, Flavián, and Guinalíu (2019, p. 398), OTCs differ from OBCs in a variety of ways. For example, while OBCs involve a more formal and structured relationship with admirers of a brand, OTCs are informal because the 'users' interest in the consumption activity is what gives sense to the community'(Belanche et al., 2019). In addition, consumers' growing interest and participation in OTCs is due to their ability to engage in informal and personal communication with one another. Finally, these informal communications and the advice given among consumers about brands are deemed more objective than are marketing messages from firms.

To ensure a strong understanding of the research topic (i.e. consumers' use of ICT in tourism, travel and hospitality services), a literature review was conducted. There are four fundamental reasons for conducting a literature review:

1.) To asses and become acquainted with the current state of the research domain. As argued by Torraco (2016), literature reviews are necessary for harmonising different studies in a dynamically growing research domain. Because this dissertation cuts across ISs, consumer behaviour and tourism, which have witnessed unprecedented interest in recent times, undertaking a literature review was a worthy journey for the current study.

2.) To become acquainted with the key theories, models and frameworks that are dominant in the research domain.

3.) To identify scholarly authorities and institutions that have shaped the subject area. This was considered quite critical because, as the subsequent publications that form this dissertation reveal, identifying these scholars provides a pool of and easy reference to related studies.

4.) To identify gaps in the literature. Literature reviews are fundamentally useful for understanding the state of a given research domain, discovering research gaps and proposing areas for further exploration (Shaikh & Karjaluoto, 2015b; Webster & Watson, 2002).

In the first literature review article, key terms, such as 'online tourism adoption', 'tourism website adoption', 'e-tourism', 'e-tourism adoption', 'social media tourism adoption', 'online destination image', 'Web 2.0 adoption in tourism', 'mobile tourism adoption' and 'online tourism intention and use', were used to identify relevant literature. The search was firstly conducted in major databases, such as Web of Science and Google Scholar. Additional searches

included ScienceDirect, SAGE, Wiley, Springer, Emerald, Taylor & Francis, JSTOR and Inderscience. A total of 71 studies were found and subsequently classified into three groups. In the analyses and grouping of the studies, it was found that there were many more studies on the use of websites as a travel information search platform than there were for social media and mobile IS combined. This effort produced the first publication for this dissertation (Article 1).

The findings were curious in that, despite the popularity of social media, the few studies available were not commensurate with real-time adoption by consumers. Additionally, there were conflicting findings (e.g. Casaló et al., 2011; Lee et al., 2011; Wang & Fesenmaier, 2004; Wu & Chang, 2005) on consumer behavioural dynamics, decision-making and the elements of acceptable travel information in an OTC context. Thus, it became necessary to conduct another literature review to harmonise the conflicting findings. The use of search terms included 'e-WOM in tourism and travel', 'social media adoption in tourism', 'Web 2.0 adoption in tourism and travel', 'user-generated content in tourism and travel', 'blogs in tourism and travel', 'social networking in tourism and travel', 'online communities in tourism and travel' and 'virtual communities in tourism and travel'. This search, which included databases in Google Scholar, Emerald, Science Direct, Wiley, JSTOR, IEEE, Springer, Inderscience and Taylor & Francis, yielded 51 articles. Importantly, the data for the literature review studies were secondary sources, and the units of analysis were the individual articles. Admittedly, the use of secondary data in marketing research is a controversial topic among scholars. Rindfleisch and Heide (1997) contended that secondary data poses measurement challenges, which arise from construct validity problems. However, the use of secondary data expands opportunities for new sources of data and can also be used to corroborate existing results (Houston, 2004). The use of secondary data in this dissertation was limited to the literature review studies, which relied on already published studies; therefore, this approach does not warrant any validity questions in the findings of this dissertation.

Interestingly, these literature review studies yielded fundamental information, which served as critical pillars for this dissertation. In addition to the dominant theories and framework, the literature reviews exposed authorities and dominant research institutions that have contributed to the research domain. Additionally, as with quality literature review studies, the exercise unearthed domains that have received popular attention for their thematic structures and dominant constructs as well as revealed critical research gaps. The two literature review studies comprise the theoretical part of this dissertation.

3.4 Thematic Categorisation of Online Tourism Communities via Bibliometric Analysis

OTCs take place on several social media platforms, including TBSs. Thus, mapping and classifying these platforms required a scientifically proven approach. In the research community, the use of bibliometric analysis, which quantitatively analyses academic literature in a chosen field, is increasing (Fahimnia, Sarkis, & Davarzani, 2015; Leung, Sun, & Bai, 2017). This type of analysis highlights the trajectory of knowledge by identifying critical themes and influential scholars, organisations and even countries that have contributed considerably to the particular field (van Eck & Waltman, 2010, 2017). There are various types of bibliometric analysis; however, the most common are citation-based analysis, co-word analysis and keyword analysis (Leung et al., 2017).

Citation-based analysis is divided into citation analysis, co-citation analysis and bibliographic coupling (Leung et al., 2017). Citation analysis examines the degree of the relationship between pairs of studies in a network (Fahimnia et al., 2015). This analysis can be performed on a specific author, study, journal, organisation or country (van Eck & Waltman, 2010). A co-citation analysis highlights how frequently two studies are cited together because they are similar and/or share common themes (Leung et al., 2017). Studies in a co-citation analysis are represented in bubbles and links or lines (van Eck & Waltman, 2010). The bubbles vary in size, with larger bubbles representing articles that have received a higher number of citations, and the thickness of the lines indicating the power of the co-citation relationship (Leung et al., 2017). The colour of the bubble shows the cluster to which the bubble belongs, and related articles are clustered together. By contrast, co-word analysis evaluates the co-occurrence of keywords that appear together (van Eck & Waltman, 2010). Because keywords constitute the fundamental pillars of a research article, co-word analysis tracks the network of related articles and presents their interconnections in a visualised network map.

Popular software packages for performing advanced bibliometric analysis include HistCite, Publish or Perish, VOSviewer and BibExcel. This dissertation chose VOSviewer because it is proficient in performing bibliometric analysis based on network data (van Eck & Waltman, 2010). This package can be used to cluster publications and highlight insights based on those clusters (van Eck & Waltman, 2017). Similar to other bibliometric software programmes, VOSviewer can also identify the relationship between studies by linking dominant themes, which can be visually represented in graphical form. Accordingly, a total of 144 studies were used for the bibliometric analysis. These studies were drawn from the two published literature review papers. Newly published studies that are relevant to the research context were also sourced and added.

A co-citation analysis of the studies was firstly conducted. Articles that had been cited at least 12 times were included. Of the 144 studies, 67 met the criteria, and the network produced 6 clusters. A network is a map of the knowledge

structure of a discipline, which aims to enhance the understanding of the pattern of their relationships, while a cluster is a group of related items in a network (Fahimnia et al., 2015). As shown in Figure 7, among others, two early studies (Wang & Fesenmaier, 2004b, 2004a) appeared in cluster 1 and received the highest number of citations in that cluster. In cluster 2, Kim, Chung, and Lee (2011) had the highest number of citations. Wu and Chang (2005) and Bruhn et al. (2012) received the most citations in clusters 3 and 4, respectively. In clusters 5 and 6, Kaplanidou and Gibson (2010) and (Casaló et al., 2010a) were the most cited, respectively.
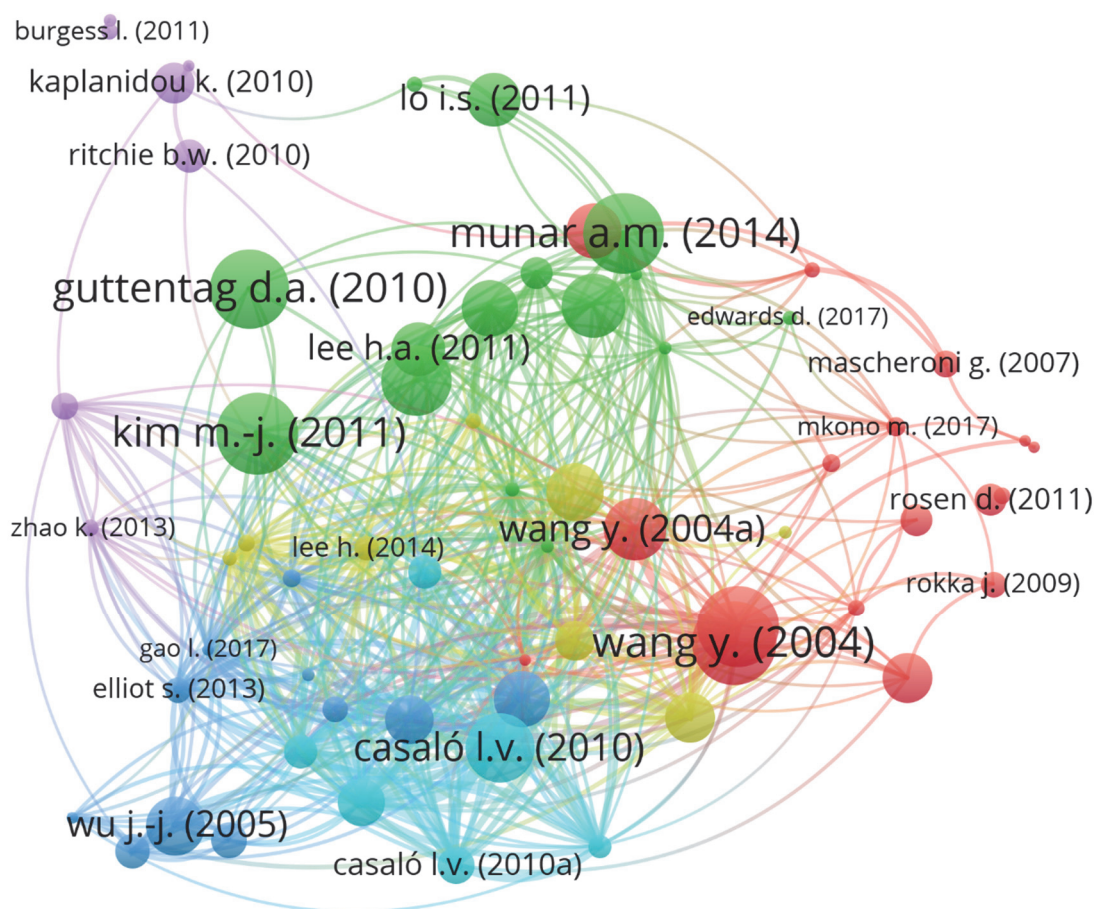
FIGURE 7 Visualised co-citation network of OTC studies

Next, a co-occurrence analysis was conducted to understand the knowledge structure and patterns of the relationships in the articles. The analysis yielded 540 author keywords. This dissertation set the criterion for including a keyword as a minimum of two occurrences. To this end, 73 keywords met the threshold. Accordingly, a visualisation of the keywords was performed, through which the four classifications of OTCs were obtained: 1) OTCs on TBSs (OTCs–TBSs); 2) OTCs on SNSs (OTCs–SNSs); 3) OTCs on BELFs (OTCs–BELFs) and 4) OTCs on sharing economy sites (see Figures 8 and 9). Generally, OTCs are established on a social media platform. This explains why social media has the biggest bubble.

In the network, trust and attitude are closest to OTC. Trust in the community plays a crucial role in influencing intentions to follow travel advice (Casaló et al., 2010b).
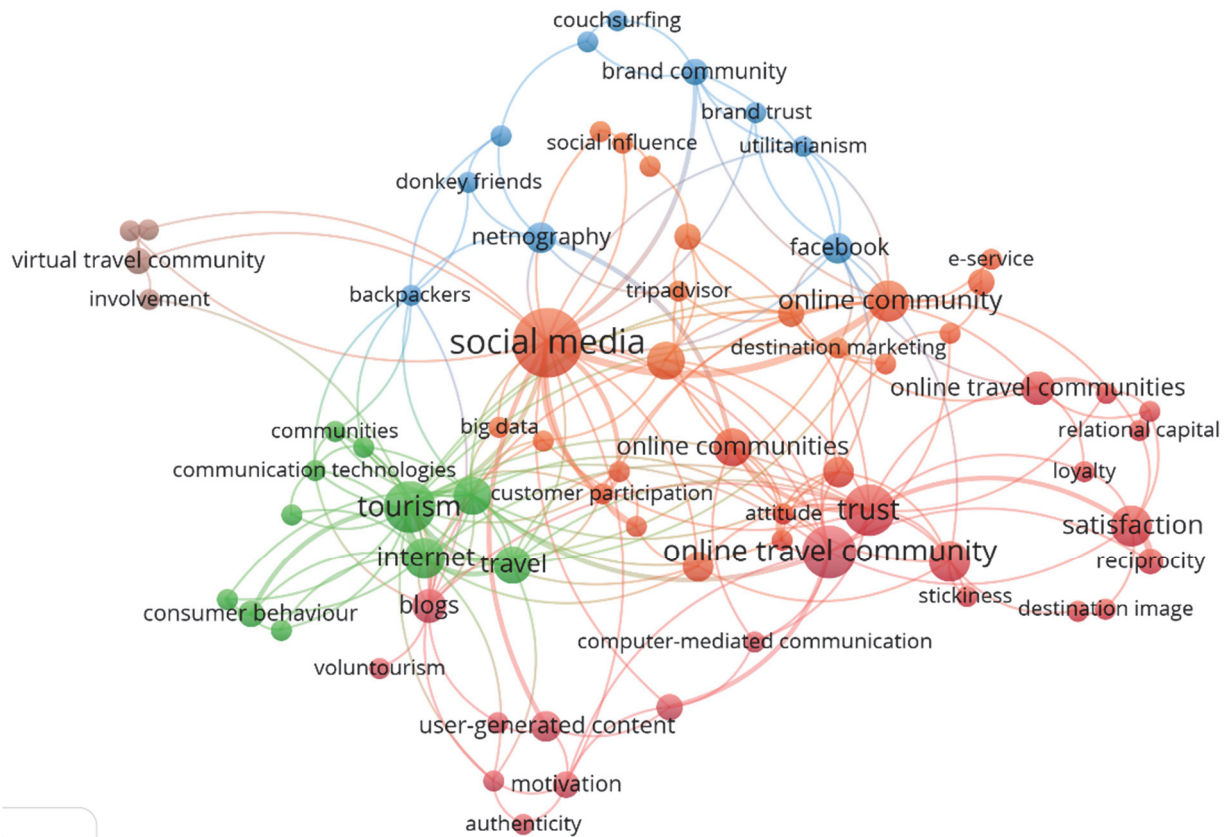
FIGURE 8 Visualised co-word network of OTC studies

3.4.1 Online travel communities on travel booking sites

TBSs include commercial websites, which enhance consumers' purchase of travel and tourism products (Muñoz-Leiva et al., 2012). These platforms enable consumers to post their experiences on brands and business transactions. A thorough search of the literature and anecdotal evidence suggested that social/product review sites operate in independent and firm-owned (Adjei, Noble, & Noble, 2010).

Independent review sites enable users to purchase and provide reviews for third-party products (Gretzel & Yoo, 2008; Sparks, So, & Bradley, 2016). Examples include Booking.com, TripAdvisor, Lonely Planet, Travelocity and Expedia. Other platforms, such as Trustpilot, TestFreaks, Which? and Trustradius, only provide a place for consumers to post reviews of their experiences with products and services. Those that list travel services on their sites on behalf of suppliers act as travel agents (Casaló et al., 2010b; Ku, 2014). Empirical evidence suggests that users trust these sites and deem them more

honest because they provide unbiased views (Cox, Burgess, Sellitto, & Buultjens, 2009; Litvin, Goldsmith, & Pan, 2008; Park, Lee, & Han, 2007).

Firm-owned review sites are created to gauge consumers' feelings about the firm and/or its brand (Adjei et al., 2010). Management responses to customers' complaints and remedial actions are critical for customers' continuous patronage (Xie, Zhang, & Zhang, 2014); therefore, these sites provide vital first-hand information to the firm about the perception of their offerings. Interestingly, some firms create these pages from existing social media sites and embed them into their web pages. Others, such as Ferrari (ferrarichat.com), create whole new pages from social web functionalities (Adjei et al., 2010). Studies have highlighted that the critical success attributes of such websites include speed and security (Lin, 2007), implying that the websites should process consumers' requests as quickly as possible and that consumers' private information should not be accessed by an unauthorised person (Ruiz-Mafe et al., 2016). Some studies have also emphasised the importance of consumer reviews on such websites (Lee, Law, & Murphy, 2011; Wang, 2016). Consumers depend on reviews because they reduce perceived risk and uncertainty; positive reviews increase consumers' trust in a tourism brand (Lee et al., 2011). Accordingly, different TBSs have adopted different strategies to encourage consumers to contribute reviews. A typical example is TripAdvisor's incentive hierarchy method (Liu et al., 2018). Review contributors are rewarded with hierarchical ranks or badges. The highest rank indicates one's expert knowledge of places visited and the quantity and quality of the reviews one has provided.
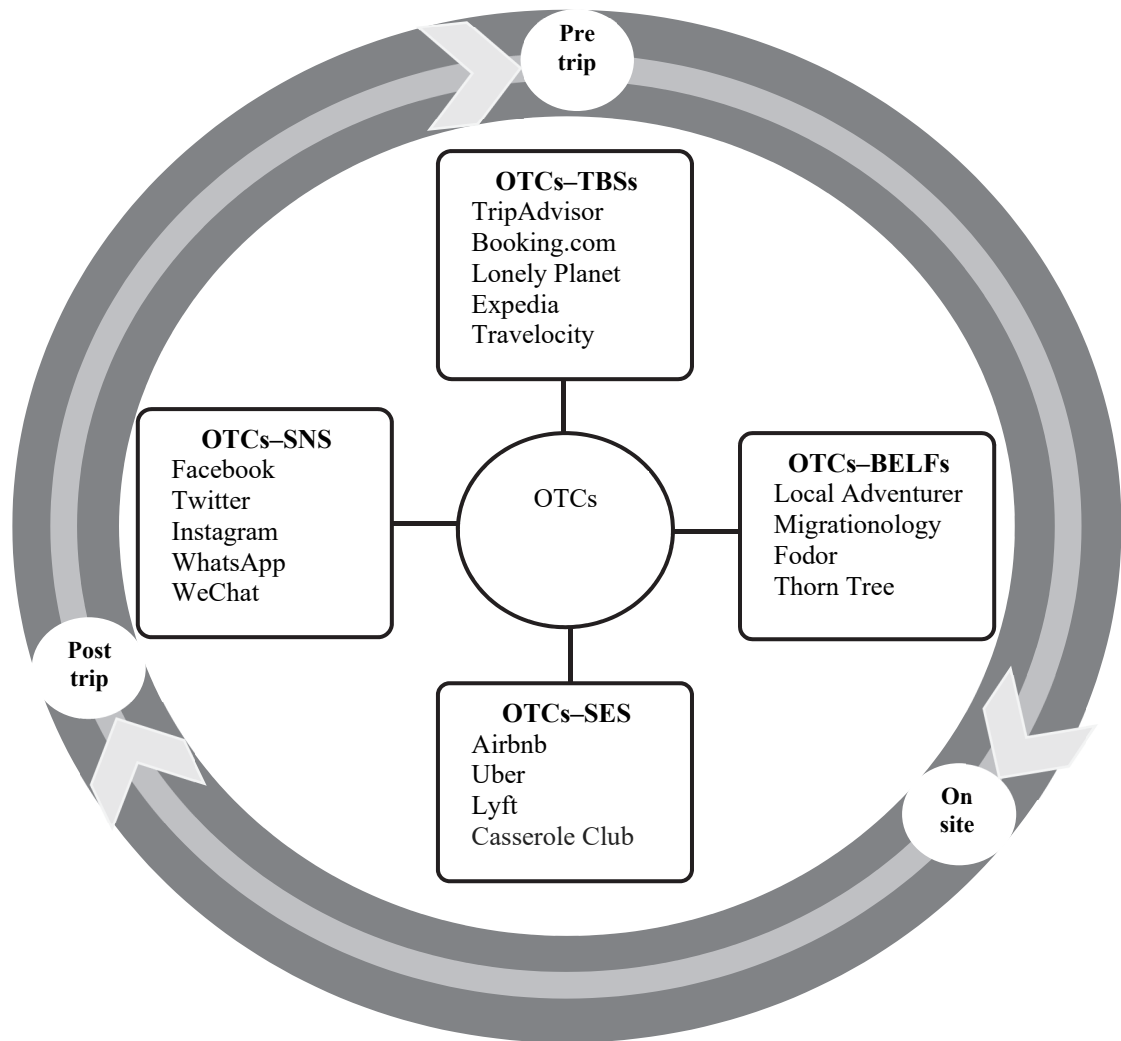
FIGURE 9 Classification framework for participation in OTCs

3.4.2 Online travel communities on social networking sites

SNSs are platforms that enable users to connect with others, create and share content and send and receive messages (Kang et al., 2014). Examples include Facebook, Twitter, Instagram and LinkedIn. Others include instant messaging applications, such as Facebook Messenger, WhatsApp, Viber, Hangout and WeChat. Using these platforms is a fast and efficient way to communicate with others (Gazit & Aharony, 2018). However, young people's exposure to WhatsApp could be addictive, which could reduce the performance of their working memory (Aharony & Zion, 2019). An interesting feature, for instance, of WhatsApp, is that users can create a community of 3 to 256 people with which they can interact and share information amongst themselves (Gazit & Aharony, 2018). Photographs and videos that are taken by tourists at destinations can

accentuate memorable experiences. Accordingly, tourists are increasingly adopting these platforms due to their ability to share their photos with relatives, friends and group members (Jovicic, 2019).

Unlike TBSs, on SNSs, firms can host their communities directly as brand pages (Wang, 2016). Thus, active participation entails commenting, liking and sharing content. With constant updates in content delivery, most SNSs (e.g. Facebook and LinkedIn) provide both image and video-sharing services. However, some sites' architectures are more robust in either image or video sharing. Thus, Instagram and Snapchat constitute the dominant image sharing platforms, while most users prefer YouTube and Vimeo for sharing videos. The choice of an SNS is underpinned by the users' motives. For instance, Facebook users are mostly driven by the need to build relationships, meet like-minded people and obtain social support; thus, it appeals to all age groups (Alhabash & Ma, 2017; Jung & Sundar, 2016). However, the need to socially enhance oneself by posting pictures and the need for entertainment activities, such as listening to music and watching videos, are key to why image and video-sharing platforms are popular among young people (De Oliveira & Huertas, 2015; Joinson, 2008; Kuss & Griffiths, 2011; Oh, Baek, & Ahn, 2017). Similarly, Manca and Ranieri (2017) posited that the need to share knowledge and keep others informed of happenings within professions is an important motivation for belonging to professional SNSs like LinkedIn.

Companies' OTC–SNSs are mainly engagement platforms (Lee & Hyun, 2016) that give consumers a voice as critical stakeholders to influence the firm's services (Bruhn et al., 2012). As a social platform, experiences are mostly tied to consumers' emotional and psychological triggers for participation, including stickiness (Lee & Hyun, 2015), enjoyment (Wang, 2016), flow (Ku, 2011) and involvement (Sanchez-Franco & Rondan-Cataluña, 2010). Similarly, interactivity and recreation are considered social motivations (Luo & Huang, 2016; Wu & Chang, 2005), while service quality, information efficiency and information quality are utilitarian drivers (Wang & Fesenmaier, 2004). A critical success factor for this category is that it enhances value co-creation (Pera, 2017). These platforms are popular because consumers co-construct value with service providers through regular interactions and dialogue, which results in mutually beneficial exchanges (Kamboj & Rahman, 2017b; Wong et al., 2019). There are also independent OTCs–SNSs that are only for specific groups of people. These groups are either open, closed or closed and private or secret (Loving & Ochoa, 2011). Groups that are open are available for general admission, while closed groups require admin approval before members can join (Kozinets, 2002; Pera, 2017). Closed private or secret groups are invisible to outsiders, and they can only be accessed via a direct link. Members of these groups share similar travel interests, values and aspirations (Choi & Lee, 2017). Several studies have examined open OTCs–SNSs, but scholars have not focused on closed and secret OTCs–SNSs.

3.4.3 Online travel communities on blogsites, email lists and forums

BELFs constitute critical information platforms for travellers. Participation in OTCs–BELFs is driven by information exchange. These sites are increasingly in high demand because they are mostly independent of firms. Thus, the sites' content is perceived as sincere, credible and unbiased (Ting et al., 2015). Examples of travel blogs include Local Adventurer, Solo Traveler World and Migrationology, while popular travel forums include Thorn Tree, Fodor and those found on TripAdvisor. These platforms provide avenues for conversation with multiple users on a range of topics (Delort, Arunasalam, & Paris, 2011). Online discussion forums exist as Internet sites or email lists. The popularity of online discussion forums is associated with users' ability to post and obtain instant feedback. Members are usually people from diverse backgrounds; therefore, users are more likely to obtain credible answers from experts (Cole, Watkins, & Kleine, 2016). However, some scholars have criticised these forums due to potentially controversial topics, which could lead to arguments with inconclusive results (Lewinski, 2010).

Despite those concerns, many online discussion forums provide a community for consumers to share, ask questions and obtain feedback about products and services. For instance, Kunz and Seshadri (2015) argued that sharing travel-related experiences often results in bonding among forum members, which often leads to offline relationships. Similarly, Neidhardt et al. (2017) found that the emotion of the user and his/her choice of travel destinations are influenced by members of online travel discussion forums. A common characteristic of this category is information quality. Within the travel and tourism domain, bloggers and members of email lists and forums come from diverse backgrounds and possess different levels of experience (Kunz & Seshadri, 2015). The key success factor of OTC–BELFs is altruism (Lee & Hyun, 2018; Wang, 2016), which underpins the high level of trust that travellers place in the sites' recommendations and travel advice (Ting et al., 2015). Additionally, because some users possess expert knowledge in their fields, group members who are satisfied with the quality of the information in the group not only continue in such groups but also recommend them to others (Zhao et al., 2013).

3.4.4 Online travel communities on sharing economy sites

The emergence of the sharing economy has altered business models across a range of industries. As such, it is often referred to by different names, such as the on-demand economy, the peer economy, collaborative consumption or the networked economy. The sharing economy constitutes an online platform where owners of unused or idle resources can rent them on a short-term basis to users for a fee (Fang, Ye, & Law, 2016). Although this is a recent phenomenon, the acceptance of the sharing economy has had a pervasive effect on virtually all components of the economic and social system (Dredge & Gyimóthy, 2015). Examples of sharing economy platforms include Airbnb in the accommodation sector, Uber and Lyft in travel/transportation and Casserole Club and Uber Eats

in the food service sector. Fang et al. (2016) argued that the popularity of these platforms is accentuated by the embedded win-win experience that they offer (i.e. while the renter makes money from an idle resource, the user has access to the resource at a comparatively lower cost). As the sharing economy disrupts existing business models, their legitimacy has been questioned, which has led to lawsuits and even the shutting down of some operations by different authorities (McNamara, 2015; Streitfeld, 2014; Swor, 2019). However, the innovative service offerings of these platforms continue to appeal to different target groups. As with conventional product review sites, reviews serve as an important metric that users can evaluate to locate a quality service; thus, community members rely on others' past experiences with the service to make a purchase decision (Bridges & Vásquez, 2018; Phua, 2018).

3.5 Assessing the Reliability and Validity of a Measurement Item

Reliability is the consistency of the measuring instrument, while validity measures how an instrument measures what it is intended to measure (Drost, 2011). In effect, a measuring instrument is said to be reliable if its result is the same when subjected to more than one condition. In quantitative research, there are several measures that can be used to ascertain the reliability and validity of the data. In Articles 3 and 4, by using SmartPLS, various quality criteria were tested.

The empirical component comprised two waves of data collection, which resulted in three articles. The data were primary, survey-based and obtained from crowdsourcing websites. Mathers, Fox, & Hunn (1998, p.5) define a survey as a research tool 'used to collect information on atttitudes and behavior.' While they admit that surveys take many forms, they however explicate two main types: cross-sectional surveys and longitudinal surveys. Cross-section surveys are taken at just one point in time and are mostly used to provide information of what is happening at that particularly period. On the other hand, longitudinal surveys are designed to provide information 'or paint a picture of events or attitudes over time'. In this dissertation, the cross-sectional survey was used.

Each of the two survey instruments was pretested with different faculty members, both within and outside the university. The first instrument was tested with 15 researchers, while the second was tested with 50 researchers. After all responses were received, the needed improvements were made before the final survey was administered. The survey instrument practically indicated that respondents should provide their top three OTCs.

Data from the first group, which were obtained via Amazon Mechanical Turk, comprised 251 respondents who participated in different OTCs. Two studies were produced from this dataset.

Another wave of data collection was launched in Qualtrics.com, with 450 OTC participants responding. Extant studies have suggested that the need for quality data is a critical driver of data collection on crowdsourcing websites (Litman,

Robinson, & Abberbock, 2017; Peer, Vosgerau, & Acquisti, 2014) because they adopt a filtering algorithm in which the profiles of the respondents are used to match the right survey instrument (Lowry, D'Arcy, Hammer, & Moody, 2016). Furthermore, the reason for separating the two separate waves of survey data was to examine the dissertation topic from different angles because the review studies generated many areas that required examination. Upon finishing data collection, progressing to the main analysis required that certain criteria be met, including data reliability and validity.

This dissertation ensured that the standard model assessment criteria based on convergent validity, discriminant validity and composite reliability (CR) were met. For Articles 2 and 3, after using Chin's (1998) recommended boundary, all factor loadings exceeded 0.7 (see Table 6).

This dissertation achieved a CR of values between 0.882 and 0.93, showing that the average variances extracted (AVE) were greater than the recommended value of 0.5 (Bagozzi, Yi, & Phillips, 1991; Hair, Ringle, & Sarstedt, 2011). In terms of discriminant validity, Fornell and Larcker's (1981) criteria were met: the square root of the AVE values were higher than the correlations between each construct. Similarly, in Article 5, confirmatory factor analyses were performed for each scale using software EQS 6.4. This was done to specify and evaluate measurement models under the maximum likelihood and robust methods of estimation. Consequently, except for 3 constructs that loaded below 0.7, all others loaded above 0.7. In line with Little, Lindenberger, and Nesselroade's (1999) proposition, these indicators were retained because they substantially contributed to the AVE. Items in the respective factors were consistent; the AVE values across constructs were all above 0.50, with the reliability of items measured by Cronbach's alpha and the CR of rho being above 0.70 in all constructs.

4 SUMMARY AND KEY FINDINGS

This section provides a summary and the key findings of the five articles that are included in this dissertation, which each treated different angles of the overall dissertation topic. This dissertation is divided into adoption and post-adoption consumer behavioural dynamics. Articles 1 and 2 discuss adoption-related behaviours, while Articles 3, 4 and 5 explain post-adoption behaviours.

4.1 Article 1: 'Consumers' acceptance of information and communication technology in tourism: A review'

The diffusion of ICT has provided incredible opportunities for both firms and consumers. Firms use these tools to create better customer experiences, and consumers have gained diversified options to help them meet their needs. Prior to the publication of the first article, several scholars had examined consumers' use of information and communication in different contexts via different theories and models. Due to the pervasive nature of ICTs, a lack of harmony and (in some cases) conflicting findings, notable authorities in the field (Buhalis & Law, 2008; Law et al., 2014, 2009) have called for a systematic review that synthesises existing studies. Thus, this study was an answer to these calls.

A total of 71 articles that were related to consumers' use of ICT in tourism, travel and hospitality services and published between 2005 and 2016 were used. A thorough analysis of the studies revealed that they were drawn from 30 journals (16 tourism-based and 14 non-tourism-based journals). The study further revealed that most of the studies were published in the Eastern Asia Region, Europe and the United States, while the Middle East and Africa had the lowest representation, and convenience sampling dominated the data collection. Additionally, several approaches, such as email, face-to-face and web-based contact, were employed in the data collection. The 71 articles used 28 different theories, frameworks and models, most of which were adopted from the IS field.

Specifically, the TAM dominated the list, while other models included the unified theory of acceptance and use of technology and the innovation diffusion theory. Furthermore, prominent theories in the psychology field, such as the elaboration likelihood model, the theory of reasoned action and the theory of planned behaviour, were also used.

Importantly, this study uncovered three groupings and thematic areas: consumer adoption of web-based services in tourism (CAWST); consumer adoption of social media in tourism (CASMT); and consumer adoption of mobile information services in tourism (CAMIST). CAWST includes studies that examined the influence of websites on consumer purchases of tourism, hospitality and travel products. Within this classification, two main sub-themes were also identified. Of the 40 studies that fell into the CAWST classification, 11 examined consumers' perceptions of websites as a critical tool for advancing products and destination image. These studies deal with several aspects of tourism and hospitality firms, such as hotels, events, heritage sites and restaurants. Similarly, 13 studies examined websites' technical features and their roles in booking and reservations. The main areas that were covered in this sub-theme included airline and hotel booking.

The CASMT classification comprises studies on social media. In total, 22 studies fell into this classification. These studies examined different social media platforms and how they influenced consumers' travel decision making. However, blogs dominated these studies. Several theories and frameworks were used. In this grouping, some of the studies extended the TAM, while others combined up to three models. Interestingly, findings on these studies were not uniform regarding what constitutes acceptable travel information.

Finally, CAMIST is the umbrella name that covers studies dealing with consumers' adoption of mobile devices and mobile applications. Interestingly, despite the pervasive nature of mobile applications, it was found that this classification was the least represented, with only eight studies falling into this category.

4.2 Article 2: 'What drives travellers' adoption of user-generated content? A literature review'

Having understood the broader picture of the application of ICTs in tourism and how these tools influence consumer decision-making, this second study explored the dynamics of social media and how the different platforms have been used and applied in extant studies.

Overall, 54 studies from 2005 to 2016 were included. A further breakdown showed that 51 were articles from 28 journals, 2 were PhD dissertations and 1 was a conference paper. Further analyses revealed that, of the 28 journals, only 9 were tourism-based. In terms of the spread of the publications, the highest number of publications were conducted between 2013 and 2015 (64.8%).

Geographically, only one study was conducted in Africa, whereas Asia produced the highest number of publications (51.8%), with Taiwan topping the chart of single countries (20%).

On further exploration, this study uncovered 22 different theories, frameworks and models. Similar to Article 1, the TAM was the most utilised theory, and the antecedents were also dominated by those that were derived from the TAM model, including perceived ease of use, perceived usefulness and attitude. Interestingly, attitude was the most frequently used antecedent, appearing 17 times across the 54 studies. In the context of user-generated content, attitude is defined as the degree to which the consumer feels the content is beneficial in helping him/her reach a travel decision (Casaló et al., 2010a). The dominance of attitude in these studies is understood because attitude is critical and serves as a precursor to a consumer's decision. Article 2 also examined the strengths of these antecedents in predicting intention by analysing the average path coefficients of the effect sizes of their R-values. To this end, the most frequently occurring antecedents included attitude, perceived usefulness, trust, perceived ease of use, subjective norm/social influence and enjoyment. It was found that trust had the strongest effect on attitude.

Additional findings revealed that three key elements—source characteristics, user characteristics and content characteristics—constitute critical factors for user-generated content adoption. Source characteristics relate to the user's perception of the source of the content. Within this classification, source credibility constitutes an important criterium for the acceptability of the content. Thus, source credibility is evaluated based on trustworthiness and expertise. Consumers evaluate trustworthiness and expertise based on the 'name of the author who wrote the message, the number of messages the author has posted, and the number of replies the content has generated' (Ukpabi & Karjaluoto, 2018, p. 254). The characteristics of the content are further criteria for evaluating the acceptability of a travel message. The most popular characteristics that are used in extant studies include aesthetics, valence of reviews, information accuracy, argument quality, information relevance and information reliability. Gender, age, literacy level and income constitute user characteristics. Finally, the most popularly used and empirically tested variables include involvement, perceived enjoyment, experience and perceived benefits.

4.3 Article 3: 'The Influence of offline activities and customer value creation on online travel community continuance usage intention'

With increased online deviant behaviours (Sigala, 2017), which often constitute privacy risks, consumers' interest in online communities is waning. This is further exemplified by the high number of online communities that have shut down within a few months of launching (Millington, 2015). With social presence

theory and customer value creation as the underpinning theoretical frameworks, this study examined the influence of offline activities and customer value on both continuance intention and recommendation intention.

By using SmartPLS to test the structural model of the eight proposed hypotheses, six were accepted, while two were rejected. Specifically, it was found that offline activities positively influence both hedonic value and social value, but they do not affect functional value. The results show that OTC managers' application of offline activities, such as direct email communications, phone calls and physical gatherings (e.g. picnics and parties), increase consumers' enjoyment, pleasure and fun as well their ability to socialise with others. These physical gatherings strengthen bonds among members and increase their social ties (Arenas-Gaitan, Rondan-Cataluña, & Ramírez-Correa, 2013).

However, with the rejection of the hypothesised relationship between offline activities and functional value, this study also shows that these social events do not impact members' information searches, which could enhance their travel decisions. Thus, it is important for an OTC to adopt the right strategy based on their overall goals. The results further reveal that OTCs that offer services or provide content that meet consumers' social, functional and hedonic value needs will enjoy continuous participation, and by continuing in these platforms, they will be recommended to others.

4.4 Article 4: 'Customer value framework and recommendation intention: The moderating role of customer characteristics in an online travel community'

Understanding consumer demographic configurations is a critical requirement for a successful online segmentation strategy, particularly in the tourism and travel services (Lutz & Newlands, 2018). Based on the hypothesised relationships and as a follow-up to Article 3, Article 4 sought to examine the moderating roles of age, gender, visiting frequency and time spent on the relationship between functional value, hedonic value, social value and recommendation intention. Furthermore, this dissertation conducted a moderation analysis on the demographic variables to determine the strength of the relationships through the moderation variables. Thus, a multi-group analysis was conducted.

The results show that males perceive the influence of functional value on recommendation intention more than their female counterparts do (male, $p < 0.001$; female, $p < 0.001$). With respect to age, this dissertation's proposal that the effect of functional value on recommendation intention would be stronger for older participants than it would be for younger ones was not accepted (older, $p < 0.001$; younger, $p < 0.001$). This result typically shows that younger consumers, unlike their older counterparts, are more inclined to recommend an OTC when their need for functional value is satisfied. This finding aligns with (Ben-Shaul &

Reichel, 2018), who argued that fulfilment of functional motives drives stronger e-WOM intention.

However, a more interesting result was found when moderating the relationship between hedonic value, social value and recommendation intention via frequency and duration of visits. The results indicate that the influence of hedonic value on recommendation intention is stronger for frequent visitors than it is for infrequent visitors (frequent visitors, $p < 0.001$; infrequent visitors, $p < 0.001$). Nevertheless, the proposition that hedonic value has more influence on recommendation intention for those who spend more time in an OTC than it does for those who spend less time was not accepted. In this study, frequent visitors perceived more social value and demonstrated more of a need to recommend the OTC than did infrequent visitors. A possible explanation for this could be that individuals with weak social ties will find OTCs a value-fulfilling platform that offsets a weak point in their offline world (K. H. Lee & Hyun, 2018). Finally, for those who spend more time in the OTC, social value was not strong enough to influence their recommendation intention (more times, $p > 0.05$; fewer times, $p > 0.05$).

4.5 Article 5: 'The role of source credibility in customer motive and customer engagement in online travel community platforms'

While extant studies are unanimous in echoing different drivers of CE (Brodie et al., 2013; Hollebeek, Glynn, & Brodie, 2014; Islam et al., 2017), few have examined how source credibility influences CE. To fill this gap and based on the findings of Article 2, which, among others, highlighted the critical role of source credibility in consumers' use of not only an OTC but also the content of the platform, the role of source credibility on both customer motives and CE was examined. Customer motives, which were drawn from the UGT, comprised a multidimensional construct that included psycho-social, functional, monetary and hedonic motives. Similarly, CE comprised constructs like affection, absorption and interaction, while source credibility was measured unidimensionally. In total, the study tested 23 hypotheses.

Of the 23 proposed hypotheses, 19 were accepted and 4 were rejected. The study highlights the critical role of source credibility in driving both customer motives and CE. The four dimensions of customer motives and the three dimensions of CE ($H1_{a-d}$–$H2_{a-c}$) all indicated that they had a positive effect on source credibility. As the functional motive with the highest score on source credibility, information exchange was reaffirmed as the foundation on which OTCs stand (Kang et al., 2014). Consumers are concerned about the sources of an OTC's content, especially those that influence their consumption behaviours. Similarly, as the results show, platforms that are perceived credible will attract higher levels of CE, which further increases continuance intention (H7).

In addition, the three dimensions of customer motives ($H3_{a-c}$–$H5_{a-c}$) all positively influence CE, which further underscored motives as the underlying cause of behaviour (Markus, 2016). Specifically, the effects of psycho-social and functional motives on interaction, absorption and affection are higher than are monetary motives. This could result from consumers' focus on more information exchange and relationships that engender brand trust and deeper levels of engagement than does specific content that embodies monetary deals, such as sales promotion. In other words, OTCs' overreliance on monetary sales promotions will destroy brand trust by encouraging brand switching (Luk & Yip, 2008).

Interestingly, support was not found between hedonic motives and all the dimensions of CE ($H6_{a-c}$). This finding could mean that consumers' preference for and engagement in OTCs are superior to any form of amusement, pleasure and fun, which are not primary drivers of engagement in such platforms. Thus, in line with an earlier finding, a person's interactivity is not a driver of enjoyment in an OTC (Wu & Chang, 2005). Finally, in H8–10, while the effects of interaction and affection on continuous participation were positive, the relationship between absorption and continuous participation was negative. This finding corroborates the work of Bilgihan, Nusair, Okumus, and Cobanoglu, 2015, who did not find support between flow and e-loyalty. A possible explanation is that, in this context, flow absorption is an emotional state that is event-based; as such, it does not lead to commitment to the brand. Thus, managers must be innovative in their offerings to not only create momentary excitement but to ensure enduring commitment to the brand.

5 DISCUSSION

Over the past decade, there has been a quantum leap in the use of social media. This increase has been anchored by the fact that consumers' ability to communicate is no longer limited by distance. Additionally, huge expenses that were previously incurred as a result of an information search are no longer a factor; information is now available with the click of a mouse. Information sharing is a critical component of online relationships because it reduces information search costs. Many people who use social media and OTCs do so to obtain information about places, events and people because they believe that they can obtain the latest and most useful information to aid their travel planning (Hur et al., 2017). For companies, OTCs have provided a cheaper option for maintaining a strong and visible presence in the marketplace. OTCs have elevated consumers to the status of critical stakeholders whose inputs significantly influence a firm's value delivery process. Having looked at OTCs from different angles, this dissertation can be summarised in the following ways.

To begin, consumers' use of ICTs in tourism, travel, hospitality and events services allows them to receive information via websites, social media and mobile devices, including mobile applications. Each of these platforms varies in its use. For example, websites provide consumers with the opportunity to search for and access products in addition to making reservations and booking services. To this end, website functionality, navigability and security are considered paramount (Amaro & Duarte, 2015). While SNSs are often chosen because they provide a socialisation platform, TBSs deliver much more utilitarian value, as do email lists and blogs, which also offer expert opinions on a firm's services. The ubiquity of mobile devices with various mobile applications now enables consumers to access services anytime and anywhere.

Furthermore, the use of specific content and its ability to offer helpful advice during travel planning depends on three key factors: the source of the content, the characteristics of the content and the characteristics of the user. From the source perspective, credibility (i.e. expertise and trustworthiness) is an important criterium. Consumers judge acceptable content based on valence, novelty, argument quality and aesthetics (Wu et al., 2015). Studies have also

shown that consumer demographics vary in their use of social media (Akman & Mishra, 2010). Similarly, consumers' emotional experiences, such as enjoyment and involvement, predispose them to messages that correlate with their emotional states.

In addition to interactions via OTC platforms, this study reveals that organising offline activities can drive customer value via attendant continuous participation and positive WOM. While social value and hedonic value revealed a strong and positive effect on offline activities, functional value did not find support. However, these value propositions (functional, social and hedonic) had strong and positive relationships with continuous participation. Additionally, the relationship between continuous participation and recommendation intention was positive.

This dissertation also shows that different customer demographics differently moderate the relationships between customer value and recommendation. Males are more influenced by functional value than females are regarding recommending the platform, while frequent visitors perceive more social value than do infrequent visitors.

Finally, this dissertation points to source credibility as a significant influence of customer motives and CE. However, hedonic motive does not affect CE, and no support was found between absorption and continuous participation. The next section discusses the theoretical and managerial contributions of this dissertation.

5.1 Theoretical implications

The theoretical contributions of this dissertation are summarised in Table 5. Article 1 contributes to the understanding of the use of ICT in tourism, which is an information intensive service domain, and understanding these technological tools and their various application areas is key to furthering their use. Although extant literature reviews in this area (e.g. Buhalis & Law, 2008; Frew, 2000; Law et al., 2014, 2009; Pesonen, 2013) have investigated different ways in which ICT has been examined, one important area that has received less attention is understanding the antecedents of consumers' adoption of these tools, which are classified into three domains: websites, social media and mobile information. This dissertation also examined the dominant theories, models and framework in each domain, finding that the most commonly used antecedents are those derived from the TAM model, with the primary ones being perceived ease of use and perceived usefulness. This finding aligns with a similar study that reviewed which factors influence mobile banking adoption (Shaikh & Karjaluoto, 2015b). Additionally, this dissertation contributes to the extant knowledge by answering previous calls that have echoed the need to examine the theories, frameworks and models that are used in ICT-related tourism studies (Law et al., 2014). By identifying the 28 different theories, models and frameworks and their various constructs, it provides a ready tool for future studies in this domain (Webster &

Watson, 2002). Furthermore, while previous studies have noted that ICT use in consumer services is global (Galloway, Sanders, & Deakins, 2011; Werthner & Kleins, 1999), a specific understanding of the regional and country-specific applications in tourism, travel and hospitality services was lacking. Accordingly, this dissertation has filled this gap by providing both regional and country-specific analyses of the contributions of extant studies in this domain.

Similarly, as highlighted by Torraco (2016), another central objective of literature reviews is to identify methodological issues in extant studies to chart a better direction for future studies. Accordingly, this dissertation found that the quantitative approach was used the most, followed by the qualitative method. Some researchers also adopted either the conceptual/theoretical approach or mixed methods. Among the quantitative studies, survey administration and retrieval were performed primarily through different online communities. Some also collected data via emails and face-to-face interactions. A negligible portion of the analysed studies opted for postal communication. Generally, samples comprised participants in the communities and tourists, including students. Structural equation modelling (SEM) was the main analytical tool.

Furthermore, some studies (Wang, Chan, Leong, Ngai, & Au, 2016) adopted a Big Data approach by analysing the credibility of members' interactions. Interestingly, common statistical tests, such as confirmatory factor analysis, were used in most of the studies to determine the construct validity of the measurement scales. However, there were apparent omissions of testing for common methods bias in the majority of the studies that employed SEM. Recently, SEM experts have begun to raise concerns about the validity of research findings that were derived from self-report questionnaires when data were collected from the same respondents at the same (Chang, Van Witteloostuijn, & Eden, 2010). Chang et al. (2010) have posited that such an approach could lead to false findings because common method variance 'creates a false internal consistency, that is, an apparent correlation among variables generated by their common source' (p. 178). However, in a recent study on data simulation involving 137 articles, Fuller, Simmering, Atinc, Atinc, and Babin (2016, p. 3,196) found that 'lower to moderate levels of common methods variance (CMV) do not inflate correlations and, in some cases, may even deflate correlations'. They concluded that scholars should not automatically assume that CMV biases data simply because the data originate from the same respondents. They therefore recommended that CMV should only be tested when researchers encounter specific situations; in that case, a lengthy step-by-step report should be presented to explain how such issues were handled.

Table 5 Summary of the theoretical and managerial implications

Article	Theoretical implications	Managerial implications
Adoption		
Article 1	This literature review study: • advanced the extant knowledge by identifying underpinning ICTs in the tourism, hospitality and travel services • identified 28 different models, theories and frameworks (which were drawn from several disciplines, including IS, psychology, sociology and business) in related studies • analysed the geographical coverage of the relevant studies; Asia (mainly Taiwan, China and Hong Kong), Europe and America had the greatest representation in the studies, while the Middle East and Africa were the least represented	• Managers should ensure that web quality features that oversee navigability, speed and interactivity are incorporated into tourism websites. • Websites should incorporate features that positively enhance destination images. • Managers should promote shared identities by encouraging members to enhance their profiles via adding pictures to their profiles and maintaining socially enhancing profiles.
Article 2	This literature review: • classified the different social media platforms and online travel sites that form OTCs • classified and expatiated on the factors that influence the acceptability of travel information into three types of characteristics: source, content and user • conducted a mini-meta analysis of the critical factors underpinning the acceptance of travel information by analysing the average path coefficients of the effect sizes of the R-values of the most frequently used relationships in the studies within this context; it found that trust has the strongest effect	• Destination managers should introduce free online access at destinations. While hotels and restaurants are leading in this area, attractions, events and travel companies are lagging behind. • Destination managers should work with city administrators to migrate their cities towards smart tourism destinations. • Hospitality firms will earn higher ratings by identifying the differences between core services and relational services. • Rather than negative reviews, which send discouraging signals to firms, an interactive platform with the reviewer should be available to better upgrade services. • Webpages and social media platforms of firms and destinations should include beautiful scenes.

Post adoption		
Article 3	This quantitative study: • extends the social presence theory to OTCs in the literature • integrates the social presence theory, customer value creation and consumer behavioural outcomes • highlights offline activities as value-creating mechanisms in the management of OTCs • finds that customer value is a critical driver of continuous participation	• While social gatherings are great opportunities to advertise offerings, firms should de-emphasise the promotion of their products at such gatherings and instead promote networking sessions. • Firms should encourage information sharing in OTCs.
Article 4	This paper: • develops a model that tests the customer value framework on recommendation intention • identifies specific customer profiles and how they are influenced by different value propositions and consequent behavioural responses • expands the OTC literature by incorporating customer participation modes and their influences on behavioural outcomes	• Destination and OTC managers should incorporate web analytics to track participation modes (frequency of visit and time spent). This segmentation approach will help offer tailor-made services to specific customer segments. • Frequent visitors should be given the opportunity to socialise. Suggest friends to them. • Recommend enjoyable and entertaining content to frequent visitors.
Article 5	This paper: • is the first to incorporate source credibility into the CE literature • incorporates source credibility, customer motives and CE • identifies source credibility as a critical driver of customer motives and CE • further underpins customer motives as one of the antecedents of CE and thus answers the call of various extant studies • highlights that CE plays a critical role in continuous participation in OTCs	• The hierarchical progression of reviewers should be introduced. Badges to show experience, expertise etc. should be given (e.g. TripAdvisor). • Tangible/financial rewards should be given to highly-rated reviewers. • Encourage more travel decision-enhancing information. • Embedding entertainment features to enhance the recommendation of the platform is not a viable option.

This dissertation also found that, while some studies adopted a qualitative approach and mostly used face-to-face structured interviews, the majority adopted a netnographic approach. Netnography—a qualitative, exploratory online version of ethnographic research—explores cyberculture and behaviour (Kozinets, 2002). Netnography is considered the most suitable research method for online and virtual communities (Rokka & Moisander, 2009). While the choice of quantitative methods is still useful in some contexts, netnography deeply analyses online communication, including texts, to help explain the meanings, moods, assumptions and perceptions of the parties involved.

Previous studies were limited in their review of social media use in tourism services. For instance Leung, Law, Hoof, and Buhalis (2013) looked at the supplier and consumer dimensions of usage in general; Lu and Stepchenkova (2015) concentrated on the methods and software that were used in extant studies; and Zeng and Gerritsen (2014) dealt more with the marketing potentials of social media. However, a clear outline of what constitutes acceptable travel information is lacking. This dissertation fills this gap by identifying and classifying different social media platforms that host OTCs. This classification is important for future studies because grouping related platforms and highlighting their core deliverables reduces the information mining cost. Thus, future studies can mine data from related platforms based on the groupings that are provided in this dissertation. Additionally, this dissertation highlights the key components of acceptable travel information, including their relevant attributes. Consumers evaluate travel information based on the source (trustworthiness, expertise and homophily); the content (novelty, valence, aesthetics, argument quality and information quality) and the user (customer profile, involvement, enjoyment, experience and benefit sought). These determine the user's attitude, use of use and perceived usefulness (Ukpabi & Karjaluoto, 2018).

Moreover, no previous literature review has focused solely on OTCs. Studies of OTCs have followed different trajectories, with no coherent integration, which has resulted in disparate and, in most cases, conflicting findings. Thus, meaningful interpretation by scholars and managers has been difficult to achieve. A systematic literature review provides a solid platform for integrating and aggregating these fragmented and disparate studies to offer a useful tool for subsequent studies in this area. Our study also streamlines the meaning of OTCs. Some studies have used the term OTC interchangeably with social media in travel, user-generated content and online travel sites (Ayeh et al., 2013b; Hee Andy Lee et al., 2011; Munar & Jacobsen, 2014), thereby implicitly restricting the understanding of OTCs to only activities on online travel sites, such as TripAdvisor, Lonely Planet, etc. Understandably, online travel sites provide a platform through which OTC participation is fostered; however, our synthesis of literature reveals that OTCs also take place on non-traditional travel sites, such as Amazon Mechanical Turk, Ciao, Facebook, etc. (Kang et al., 2014; Lee & Hyun, 2015).

This dissertation additionally extends the social presence theory to OTCs and contributes to the understanding of the role of offline activities in customer value creation. Experts have argued that, due to the absence of physical cues, social presence is diminished in online environments (Ogara et al., 2014). This argument has spurred more innovative efforts to enhance online communicators' immediacy and intimacy by improving on the synchronous features of ICT tools (Oyarzun, Stefaniak, Bol, & Morrison, 2018; Wei, Chen, & Kinshuk, 2012). In line with this argument, this dissertation contends that social presence can be enhanced in OTCs by embarking on offline activities. Thus, phone calls, picnics, parties and other social events are essential for achieving social presence by OTCs.

By integrating the social presence theory with customer value, this dissertation also found that offline activities are critical value creating mechanisms in OTCs. Specifically, while hedonic value and social value were positively related to offline activities, support was not found for functional value. This implies that offline communication fundamentally contributes to social ties, cohesiveness and pleasure in OTCs (Ukpabi, Karjaluoto, Olaleye, & Mogaji, 2019). Similarly, by identifying customer value as a determinant of continuous participation, this dissertation corroborates the findings of Zhang et al. (2017), who contended that customer value was positively related to stickiness.

Another theoretical contribution of this study is that it is the first in the OTC literature to test a model that integrates a customer value framework and recommendation intention. The findings of this study highlight the critical role of customer value in recommendation intention. Advertising remains a primary part of firms' marketing budgets (de Haan, Wiesel, & Pauwels, 2016), with the online space providing firms with more opportunities to stretch their advertising dollars. This study found that customers who perceive functional value, hedonic value and social value in OTCs will engage in positive WOM by recommending the platform to peers and friends. In line with extant studies, embarking on value-creating activities is a critical driver of recruiting new customers (Ku, 2011; Xu, Peak, & Prybutok, 2015). Among the customer value dimensions, functional value was ranked the highest, which is congruent with Ben-Shaul and Reichel (2018) and other related studies on OTCs (e.g. Chung & Buhalis, 2008).

Furthermore, this dissertation contributes to the extant knowledge by explicating consumers' characteristics and participation modes in relation to their activities in OTCs. Ben-Shaul and Reichel (2018) modelled the direct effect of participation modes (frequency of visits and duration of visits) on recommendation intention and found that both frequency of visits and duration of visits were positively related to recommendation intention. However, this dissertation went a step further by moderating the relationship between customer value propositions (functional value, hedonic value and social value) on recommendation intention via participation modes (visiting frequency and time spent). The finding that hedonic value and social value have a stronger influence on recommendation intention for frequent visitors highlights the role of pleasure, fun and social ties in OTCs. This finding further echoes Ben-Shaul

and Reichel's (2018) work, which found that hedonic motives and social-psychological motives are predictors of visiting frequency. However, this dissertation did not find support for the relationship between hedonic value and recommendation via time spent in an OTC (i.e. consumers who spend more time in OTCs are not influenced by hedonic features regarding recommending the platform). This finding is not surprising because the core deliverable of OTCs is the availability of travel information that enhances consumers' decision making (Wang & Fesenmaier, 2004). Thus, entertainment features, while important (Hur et al., 2017; Lee et al., 2011), may not be the core driver of recommendations to others. This dissertation attributes this idea to the availability of other platforms, such as Spotify, Netflix and so on, which solely deliver online entertainment.

To the best of our knowledge, source credibility has yet to be incorporated into CE. Thus, by integrating source credibility, UGT (customer motives) and CE, this study makes a novel contribution to the research domain. Between source credibility and customer motives, functional motives ranked highest, followed by monetary motives, hedonic motives and psycho-social motives. Again, this finding is congruent with Hur et al. (2017), who found that source credibility was positively related to information seeking, entertainment and relationship maintenance motives. However, in that study, the highest ranked relationship was between source credibility and entertainment. The reason for this difference could be attributed to Hur et al.'s (2017) concentration on basic social media platforms, which possess entertainment features, whereas this dissertation embraced much wider OTCs, including email lists, blogs and discussion forums, which are not embedded with entertainment features. Furthermore, the relationship between source credibility and the dimensions of CE were all positive, with interaction ranked the highest. This finding is not surprising because interaction, as a behavioural component of CE, constitutes the active exchange of information, thoughts and feelings. Thus, consumers are concerned about the attributes of the informational content.

This dissertation makes another contribution to the extant literature by explicating the relationship between customer motives and CE. Again, the proposed relationships were all significant, indicating that customers' motives do indeed drive CE. However, the proposed relationship between hedonic motives and CE were not supported, as explained in the previous section. Source credibility was positively related to continuous participation, which aligns with earlier studies that found a positive relationship between source credibility and routine use intention (Meng, Guo, Peng, Zhang, & Vogel, 2019). Similarly, CE (interaction, absorption and affection) were all drivers of continuous participation. This also aligned with extant studies (e.g. Sarkar & Khare, 2019) that found a positive relationship between flow experience and continuous use, while customer interaction was found to be a driver of customer loyalty (Hamidi & Safareeyeh, 2019).

5.2 Managerial implications

Most all research projects in this area, especially those of this magnitude, come with practical insights that are important for managers to grasp if they want to advance their operations. Accordingly, the insights that this dissertation can offer managers are detailed below.

Managers must firstly understand the role of ICT in contemporary business practices. In the tourism domain, this dissertation identified the critical role of websites, social media and mobile IS (mobile devices and applications), including the antecedents of their adoption, which can be used to leverage business operations. Perceived usefulness and perceived ease of use were featured prominently in the literatures dealing with the pre-adoption stages of ICT in tourism. For example, websites should incorporate features that enhance the navigability, speed and information quality of the destination, and destination websites should enhance the destination's image by constantly updating travel information on such websites.

Importantly, there should be attractive and scintillating scenes that elevate the consumer's curiosity about that destination. For instance, in a country like Finland, where the destination's unique selling propositions are its saunas and snow castles, these elements should be embedded as high-quality pictures coupled with animations. Moreover, destination websites could improve their website and destination quality by embedding web analytics tools, which are used to digitally track and measure web performance, including users' favourite pages and numbers of hits (Järvinen & Karjaluoto, 2015). Analytics can also be used to track visiting frequency and time spent on the platform. Managers can then send targeted messages and specific services that match their interests.

Destination managers should, as a matter of urgency, begin to migrate towards smart tourism destinations. Gretzel, Sigala, Xiang, and Koo (2015) contended that smart tourism destinations utilise ICT and other advanced technologies to collect and aggregate data, which are transformed into practical experiences for tourists, and also provide value propositions for an efficient and sustainable destination. This starts with the provision of free Wi-Fi at the destination. Notably, cities like Moscow, New York, Hong Kong and Barcelona, are already offering free Wi-Fi, which has set the bar for other cities.

Different business types, such as hotels, restaurants, parks, attractions and event venues, stand to radically transform their services as a result of the interconnected smart tourism destination ecosystem. According to a recent report (Ministry of Transport and Communications, 2019), mobile data is cheaper in Finland, and Finnish networks transfer the most mobile data in the world per customer. This has laid a solid foundation for smart tourism destinations across cities in Finland. A core benefit of a smart tourism destination is that the tourist enjoys personalised services, which increase value-co-creation at the destination and provide greater opportunities for businesses due to more innovative business models (Gretzel et al., 2015). Moreover, consumers' unlimited access to

the Internet at such destinations will greatly enhance their sharing of positive experiences, which will in turn positively influence the destination's image.

Hospitality firms will earn higher ratings by identifying the differences between core services and relational services (Sparks & Browning, 2011). Customers evaluate core services (e.g. hotel bedding and floors) and relational services (e.g. promptness in answering a customer's request) differently. Thus, firms should strive to deliver consistent service quality across a wide range of services. High-quality service attracts positive reviews (Ting et al., 2015). In the event that the customer is unsatisfied with their services, hotels should always encourage customer feedback during a stay. Additionally, rather than negative reviews, which will send a discouraging signal to firms, firms should provide an interactive platform with the reviewer to learn how to better upgrade their services.

Firms must strategically plan these offline activities because they do not all deliver the same value to the customer. While social gatherings are great opportunities to advertise a company's offerings, firms should de-emphasise the promotion of their products at social events. Rather, such events should promote interactive sessions that aim to increase members' social bonds in addition to forming new alliances and networks. Currently, Facebook offers geo-location services (Wang, 2016). Managers can leverage this tool to identify, locate and send incentives to customers nearby as a way to attract them.

On OTC platforms, entertaining features, which promote socio-psychological value, should be embedded and could be promoted along with music and movies. Travel interests have become dynamic as destinations have continued to innovate new offerings. Therefore, managers of OTCs should identify new travel interests and engender discussion on those issues to stimulate the interest of those who are emotionally and socially lonely. There are usually trending topics in OTCs; therefore, managers should identify those trending topics and develop travel services that match members' interests (Lee & Hyun, 2015). Additionally, deeper engagement could be fostered by introducing activities that engender interactivity, encouraging more socialisation, suggesting friends with similar values and profiles, etc. (i.e. provide opportunities).

Content and platform credibility could be enhanced by democratising posting content, even when it is unfavourable to the firm. However, live editors are needed to screen out content that is misleading, exaggerated and/or offensive to others. Additionally, managers should adopt a hierarchical progression of reviewers (Liu et al., 2015) to easily decipher contributors' experiences, expertise and trustworthiness.

5.3 Limitations and future research opportunities

Despite the above contributions to both theory and practice, this dissertation has some limitations. For instance, in Article 1 (Ukpabi & Karjaluoto, 2017), the aim was to examine the antecedents of the adoption of e-tourism. Accordingly, the

inclusion criteria comprised only quantitative studies that were published as journal articles. This implies that other academic sources, including books, conference proceedings and reports, were not included. Furthermore, editors' notes, conceptual papers and qualitative studies were also not included. The non-inclusion of these sources, especially qualitative studies, could have implications for our study. Furthermore, the literature search was conducted from October 2015 to January 2016, implying that newer articles in 2016 could have been missed. Similarly, articles published before 2005 were also not included. Importantly, based on the results of the bibliometric analysis, it was found that some of the articles that were published before 2005 were the foundational studies upon which later studies were built. This earlier research could have impacted the current study. Thus, future literature review studies in this domain should be extended beyond 2005.

In Article 2 (Ukpabi & Karjaluoto, 2018), some limitations were also noted. As with Article 1, the study was also quantitative. This approach could have again missed important conceptual articles, including short reports and editors' notes. Understanding cultural differences is critical in consumer-based research. This study identified lopsided coverage of the research in social media and noted that a significant number of emerging markets were not represented. Importantly, cultural differences exist, which could pose significant limitations in an ICT's usage across consumer segments. It is therefore recommended that future studies should examine these differences and limitations. This can be achieved through a cross-country study within the emerging markets. For instance, there could be a comparison of selected countries in Africa and Asia. Another study could then cross-compare between the developed markets and the emerging markets to identify their strengths and counteract the weaknesses of the emerging markets. Additionally, the literature review was based on consumer-centric studies, while studies from the marketers' perspectives were not included.

In Articles 3 and 4, the convenience sampling approach that was adopted implies that caution must be taken in generalising the results. Additionally, some constructs were analysed with fewer items; in some cases, only two items were used to measure a construct because their low factor loading affected other items. This could have affected the results. Because this challenge was encountered on the scale that was measuring offline activities, future studies could be conducted primarily for measurement and scale validation in offline activities. Similarly, because the data were obtained from Amazon Mechanical Turk, an online marketplace, it stands to reason that members of these online marketplaces are motivated by pecuniary interests, which may underpin the presence of social desirability bias in their responses. To this end, longitudinal studies could be undertaken in future studies on OTCs. Furthermore, the personal characteristics of the administrators of OTCs play a cardinal role in members' satisfaction and continuous usage intention. Specifically, the arrangement of offline activities that appeal to members' interests is important. Future studies could explore specific social activities that give members a sense

of belonging, which would make them want to continue to identify with and belong to the community.

Moreover, the possession of the requisite emotional intelligence to fittingly respond fairly to trolls is equally important. To this end, future studies could explore the role of the personal characteristics of administrators (emotional intelligence) on continuous usage intention. Additionally, positive WOM remains a critical medium for reaching and bringing in new members. No study has examined the influence of product discount/rebates or special incentives to those who introduce new members. Thus, future studies could explore how special incentives influence members' motivation to spread positive WOM. Similarly, other than anecdotal sources, the scholarly literature has yet to measure (in practical terms) the impact of the existence of firm-hosted communities on return on investment.

Article 5 primarily focused on the drivers of continuous participation in OTCs, including source credibility, customer motives and CE. However, understanding underlying customer views, emotions and opinions could help clarify the specific services and relationship approaches that foster loyalty to OTCs. This aspect was not incorporated in this study. As suggested, these can only be captured via netnographic approaches (Kozinets, 2002). Furthermore, a consumer's emotional state, including his/her involvement, interactivity, flow and stickiness, can cause triggers in OTCs. While these factors were not the primary focus of the study, they could offer interesting insights. This dissertation focused on participation; however, a critical motivation for setting up OTCs is to influence brand image and the purchase of a firm's services. Therefore, future studies should consider how OTCs can influence brand image and purchase intention.

Online travel sites are generally the largest in terms of the number of OTCs that they host. However, other social media and messaging applications' platforms, such as Facebook, LinkedIn, Whatsapp, etc., also host OTCs. Future studies could explore the motivations for hosting and participating in OTCs outside traditional online travel sites. To date, no study has examined the benefits and motivations that individuals derive from hosting OTCs, particularly closed and secret groups. Scholars may wish to examine the motivations for setting up and belonging to closed and secret groups. In addition, some groups last longer than others. It would also be important to study what factors are responsible for groups lasting longer than others in addition to how the group dynamics influence members' perception and patronage of a tourism brand.

Finally, the role of a sharing economy in exchange for building relationships is changing and challenging the traditional form of transactions. The purchase of tourism products is shifting from supplier-to-consumer to consumer-to-consumer. Thus, within online platforms, users meet to transact business between one another. Accordingly, future studies should explore the interplay of OTCs and the sharing economy.

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ORIGINAL PAPERS

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CONSUMERS' ACCEPTANCE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY IN TOURISM: A REVIEW

by

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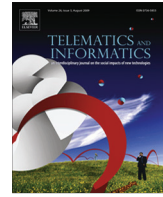
Consumers' acceptance of information and communications technology in tourism: A review

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ABSTRACT

The impact of information and communications technology (ICT) in tourism (e-tourism) has altered the ways tourism services are accessed and consumed. Ubiquitous and highly innovative ICTs provide different channels for consumers to use tourism services; thus, studies on e-tourism are numerous and fragmented. Different factors account for how consumers embrace these channels. The purpose of this study is to review studies on consumers' acceptance or adoption of e-tourism in order to group the studies, synthesize the theories, models and frameworks used and identify the antecedents influencing consumers' e-tourism acceptance and usage. A total of 71 studies from 2005 to 2016 (inclusive) from both tourism-based and non-tourism-based journals were selected, synthesized, and included. Based on their contexts, similarity and relevance, the 71 studies were segregated into three distinct groups. This study found that research among the groups is uneven. Implications and research directions are suggested.

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Contents

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1. Introduction

The ubiquity of computer systems and the availability of the internet have provided unhindered access to consumers of tourism services. e-Tourism has transformed the tourism and hospitality industry and greatly impacted all its sectors. For instance, revenue from online travel bookings stood at \$340 billion in 2015 (Statistica, 2016). Therefore, making travel arrangements – that is, reserving and booking travel and tourism products – online has become a significant commercial sector (Wen, 2012). Similarly, social media have also provided a means through which consumers obtain information about tourism services. Social media platforms contain both positive and negative statements and reviews about destinations and services shared by consumers. The influence of social media on consumers' acceptance and usage of tourism services has been underscored by the increasing number of reviews on social media platforms, e.g., TripAdvisor. Currently, on TripAdvisor, there are 320 million reviews and opinions from 96 million marketable members worldwide; 200 new posts are made every minute (TripAdvisor, 2016).

Additionally, the deployment of mobile technology has fundamentally transformed tourism offerings. Mobile technology enhances transactions through mobile devices and provides guides, even when the tourist is at the destination. Mobile apps are reportedly the 7th most downloaded apps, with 60% of global smartphone users downloading travel apps onto their devices and 45% in this group using these apps regularly to plan travel (GoodWorkLabs, 2016).

Information and communications technology (ICT) has permeated virtually every sector. However, consumers adopt these emerging technologies in different ways. In an attempt to understand these differences and to explain the adoption process and their antecedents, researchers have proposed different theories, models and frameworks. Some of these theories were drawn from the social-psychological domains, e.g., Fishbein and Ajzen's (1975) theory of reasoned action (TRA) and Ajzen's (1991) theory of planned behavior (TPB). Some originated predominantly in the information systems (IS) field, e.g., Davis' (1989) technology acceptance model (TAM) and Venkatesh et al.'s (2003) unified theory of acceptance and use of technology (UTAUT). Similarly, scholars have used these theories to explain the intentions (Amaro and Duarte, 2015; Sahli and Legoherel, 2015) and usage of ICT in tourism (Herrero and Martin, 2012; Ku and Chen, 2015).

Studies that have examined different ways consumers adopt ICT in tourism and hospitality services abound, including such topics as factors influencing consumers' travel purchases online (Al-hawari and Mouakket, 2012; Escobar-Rodriguez and Carvajal-Trujillo, 2013; Kim et al., 2013; Lee and Cranage, 2011; Nunkoo and Ramkisson, 2013; Sahli and Legoherel, 2015), website design and booking intentions (Ku and Chen, 2015; Wu et al., 2011), the role of social media in booking travel online (Ayeh et al., 2013a, b; Book and Tanford, 2015; Parra-Lopez et al., 2011), and the role of mobile technology on travel planning and use (Chang et al., 2016; Kim et al., 2015; Lai, 2015; Okazaki and Hirose, 2009).

Several reviews have been conducted on the application of ICT in tourism (Appendix II). However, no apparent review has taken a deeper look at the dynamics of consumers' adoption of ICT in tourism services. Our study is unique because consumers' adoption is a critical success factor for the deployment of ICT in tourism, and synthesizing the theories, frameworks, models and antecedents used in these studies is crucial for both scholars and practitioners. Additionally, the dynamic nature of ICT – especially as it concerns tourism – requires a constant update in the literature, as this helps practitioners and scholars to keep abreast of the field (Law et al., 2009). Buhalis and Law (2008), for example, comprehensively analyzed e-tourism publications but provided no grouping for scalability. As such, they called for the extension of future reviews to non-tourism journals and a conceptual grouping of studies. Similarly, Law et al. (2009) suggested that future reviews should analyze studies based on geographical spread to determine the extent of ICT adoption in tourism and hospitality services. Finally, Law et al. (2014) suggested that future reviews analyze the theories used in these studies.

Consequently, this study aims to fill the above-mentioned gaps in the literature and to understand the factors influencing consumers' adoption of e-tourism. Specifically, the objectives of this study are to achieve the following:

- Identify and synthesize the antecedents of consumers' adoption of e-tourism;
- Provide a classification framework for consumers' adoption of e-tourism based on previous studies;
- Identify the theories, models and frameworks used in order to synthesize their applications in various domains;
- Analyze the geographical spread of studies identifying the behavioural dynamics of consumers with respect to ICT adoption in tourism.

This study is significant for both scholars and practitioners. First, the grouping of the studies will offer new research opportunities, thus revealing under-researched areas (Shaikh and Karjaluoto, 2015a, b). Second, the synthesis of the theories,

models and frameworks will provide a solid theoretical background for subsequent research in this area (Okoli and Schabram, 2010). Third, the analysis of the antecedents and concepts, in line with Webster and Watson (2002), will enunciate the present state of research and serve as a pool for subsequent studies. Fourth, this will expose practitioners to underpinning practical antecedents that may serve as levers to attract more consumers, thus allowing them to remain competitive in business. The remainder of the study is organized as follows: Section 2 traces the background of consumers' adoption of e-tourism; Section 3 describes the research methods; Section 4 presents the results; Section 5 provides discussions and implications, contributions of the study, limitations and future research directions.

2. Background on e-tourism and its adoption by consumers

Because tourism is an information-intensive sector, a central reservation system was often used to store and retrieve information and conduct transactions (Buhalis, 2000), thus creating a central customer database. Booking in tourism services depended on travel agents, who mediated the relationship between tourism firms and customers (Buhalis, 1996). However, the ubiquity of computer systems and the emergence of the internet transformed and revolutionized the way tourism transactions are conducted (Buhalis and Jun, 2011). The internet has become a place for consumers to search for tourism-related information, purchase tourism products and services, and obtain others' opinions.

Uncertainty about the safety of online tourism bookings and transactions influenced early streams of research to focus on security (Kim et al., 2006), privacy (Lee and Cranage, 2011) and trust (Wu and Chang, 2005). Particularly, security was considered the most important consideration for online booking (Kim et al., 2006; Ryan and Rao, 2008). Increases in consumers' adoption and use of web-based platforms in tourism and hospitality services created website quality concerns, thus influencing research on website design quality (Ku and Chen, 2015). Ease of navigation and information quality became important considerations for attracting and retaining customers (Wong and Law, 2005; Kaplanidou and Vogt, 2006), as user-friendly websites enhanced information search and helped tourists arrive at quick decisions (Ku and Chen, 2015). Meanwhile, Destination Marketing Organizations (DMO) realized that the internet offered abundant opportunities for their operations. As a result, websites were designed to reflect destination attributes, thus influencing the perceived image of the destination and creating a virtual experience for the consumer (Sparks and Pan, 2009). Importantly, as argued by Chow and Murphy (2011), actual travel and the intention to travel were influenced by sightseeing, culture and heritage activity; consequently, consumers were attracted to destination websites that reflected these attributes.

Moreover, the emergence of Web 2.0 redefined consumers' adoption of e-tourism. Web 2.0 is defined as "a wide array of electronic applications (e.g., social networks, review websites, blogs, interactive websites and photo- and video-sharing platforms), which facilitate interactions among individuals and among companies and users". Through these platforms, especially social media, consumers easily form communities of members who share similar interests in a structured set of social relationships (Zhu et al., 2016). Thus, experiences with tourism products and services are shared in the form of photos, comments and reviews and are easily accessed by others (Ho and Lee, 2015). Marketers also share content to promote their products; however, consumer-generated media are perceived to be more trusted and sincere, constituting the real experience(s) of the creator (Wang, 2012). Consequently, reading content about tourism products and services has become an important pre-trip decision-making process (Tsao et al., 2015).

Furthermore, the market penetration of mobile technology (Shaikh and Karjaluoto, 2016) also influenced the adoption of tourism products and services. The ubiquity, flexibility, personalization and dissemination features of mobile technology make it a veritable tool for both marketers and consumers in tourism and hospitality services (Kim et al., 2008). For consumers, the functionality of mobile technology, such as the ease of access to travel information and trip guides, is an essential feature of its increased adoption, whereas for marketers, it is the opportunity to send marketing messages to a targeted audience. However, individual differences determine mobile technology adoption in tourism and hospitality services. For instance, Kim et al., 2008) reported that experienced and frequent travelers have a higher rate of mobile technology adoption than inexperienced and infrequent travelers.

A thorough literature search reveals two main applications of the e-tourism concept. First, the use of the internet in tourism services (Fodor and Werthner, 2005; Cardoso and Lange, 2007), and second, the use of mobile applications in tourism (Siricharoen, 2008; Sebastia et al., 2009; García-Crespo et al., 2009). However, Buhalis and Deimezi (2004, p.103) posited, "e-tourism reflects the digitalization of all processes and value chains in the tourism, travel, hospitality and catering industries", thus implying all uses of ICT in tourism-related firms. In the context of this study, e-tourism is defined as the ICT-enabled means by which consumers access and consume tourism and hospitality products and services. Our use of 'adoption' in this study implies consumers' intention to use and use of e-tourism, and the terms 'tourist' and 'consumers' imply those who consume tourism products.

3. Research methodology

3.1. Literature search

Previous literature reviews (Appendix II) on e-tourism were thoroughly analyzed and synthesized; a plan based on their recommendations was drawn up. The first suggestion was to identify keywords for the basis of a literature search

and extraction. The second recommendation was the establishment of literature inclusion criteria. The third was the classification of literature search into three major areas based on similarity, contexts and relevance. This suggestion was considered particularly important because it will provide a guiding structure for the study and identify gaps and challenges. Major search terms include 'e-tourism', 'e-tourism adoption', 'online tourism adoption', 'tourism website adoption', 'social media tourism adoption', 'Web 2.0 adoption in tourism', 'mobile tourism adoption', 'online destination image' and 'online tourism intention and use'. Google Scholar and Web of Science were used first. Further search included ScienceDirect, SAGE, Wiley, Springer, Emerald, Taylor & Francis, JSTOR and Inderscience. To take full advantage of this exercise, a ten-year period was set from 2005 to 2016. To avoid duplication, all the studies were saved into one folder with the title of each study as its file name. Therefore, it was easy to detect studies that appeared more than once; these duplicates were subsequently deleted.

3.2. Literature selection

The literature search yielded a large number of studies. To limit the studies to a manageable size, the researchers speed-read each article's abstract, introduction, methodology and texts from relevant sections to ascertain its relevance and potential for inclusion (Lu and Stepchenkova, 2015). Only accepted studies were fully read and analyzed (Appendix I). Guided by Baron et al. (2014), who posited that stability, reproducibility and accuracy are pillars of a good literature review, the inclusion criteria required that each included study must be a peer-reviewed article, consumer-based, and empirical, include measures for independent and dependent variables, have a defined sample size and provide detailed results of data analysis. Additionally because tourism is a large and heterogeneous industry (WTTC, 2016), capturing all e-tourism-related research would make the study unwieldy. Consequently, we limited our literature inclusion to e-tourism studies in hospitality and accommodation, catering, events, travel and heritage and government. After the screening stage, 71 studies were found to be useful for the study.

3.3. Justification for classification of the literature and framework

Based on one of our objectives, studies were classified according to similarity, contexts and relevance. Consumers' adoption of e-tourism was expressed mainly through browsing, reservation, booking and security concerns on tourism and hospitality firm websites (e.g., Amaro and Duarte, 2015). Another important channel for consumer adoption of e-tourism is social media, otherwise called Web 2.0 (e.g. Casaló et al., 2010). Finally, a critical analysis of the studies revealed a very important area of e-tourism, that is, mobile technology (e.g., mobile apps and devices) in tourism and hospitality services (e.g., Kim et al., 2015). Based on the above, we classify the 71 studies into three groups comprising Consumer Adoption of Web-Based Services in Tourism (CAWST), Consumer Adoption of Social Media in Tourism (CASMT) and Consumer Adoption of Mobile Information Services in Tourism (CAMIST), as shown in Fig. 1.

The first classification, CAWST, covers the services consumers derive from tourism and hospitality organizations' websites. This classification comprises research on consumers' intentions to purchase as influenced by website functionality, navigability, interactivity, security and privacy concerns. Specifically, it includes tourism information search (Kaplanidou and Vogt, 2006; Lin, 2010), reservation and booking (Kucukusta et al., 2015), and online shopping for travel services (Kamarulzaman, 2007; Kim et al., 2009; Wong and Law, 2005). Additionally, it covers studies on tourism websites' influence on destination image (Chung et al., 2015). The second classification, CASMT, covers studies on social media's influence on consumers' adoption of tourism and hospitality services. Social media platforms include virtual communities (e.g., Lonely Planet), media-sharing tools (e.g., YouTube), blogs (e.g., Xanga.com), microblogs (e.g., Twitter), review sites (e.g., TripAdvisor), and social networking sites (e.g., Facebook). Lastly, CAMIST covers studies on mobile information systems' influence on consumers' adoption of tourism and hospitality services. Specifically, it covers mobile tourism shopping (Kim et al., 2015), mobile travel apps (Lai, 2015), mobile internet (Okazaki and Hirose, 2009), smartphones and tablets (No and Kim, 2014) and recommender systems (Chung et al., 2014).
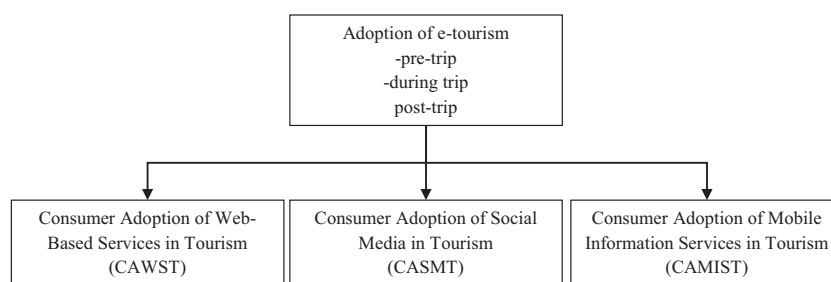
Fig. 1. Classification framework for consumers' adoption of ICT in tourism.

3.4. Identification of variables of interest

As noted earlier, the study is consumer-based; therefore, variables of interest were factors influencing consumers' adoption of ICT in tourism. The identification of the variables followed the classification of the studies. Thereafter, we adopted Webster and Watson's (2002) concept-driven approach and following the examples of previous reviews (Cheung and Thadani, 2012; King et al., 2014; Shaikh and Karjaluoto, 2015a, b), we manually derived these variables from the theories, models and frameworks used in each of the studies.

4. Results

4.1. General Findings (statistics)

The review of the 71 studies was drawn from 16 tourism and 14 non-tourism journals (Appendix III). The journals were extracted from five databases (Fig. 2). The Eastern Asia region comprising China, Hong Kong, Japan, Republic of Korea and Taiwan contributed 37 (52%) studies, with Taiwan alone offering 15 (21%). Only one (1.4%) study came from South Asia (the Indian Sub-continent); it was conducted in Singapore.

Europe offered 14 studies (19.7%), with Spain alone providing nine (12.6%). The United States of America (USA) had 10 (14%) and Middle East, four (5.6%), mainly from the United Arab Emirates (UAE) and Iran. Africa contributed one study (1.4%), which was conducted in Tunisia. The highest number of studies were published in 2015, 2013 and 2012, with 12 (16.9%), 11 (15%) and 10 (14%), respectively. 2005 and 2006 recorded the fewest publications, with two (2.8%) in each year. However, because this study was conducted in early 2016, only one study was reflected in this year, as indicated by a dashed line (Fig. 3).

Different sampling techniques were utilized, however, the majority of the studies adopted the convenience sampling method (e.g., Wen, 2013). To obtain responses, various methods were employed, including web-based and email communication (59%), on-site and face-to-face contact (34%), and postal communication (1%). Six percent used both web-based/email and on-site methods (Fig. 4). Samples comprised residents, tourists, students, internet users, and international tourists. The average sample size was 548.
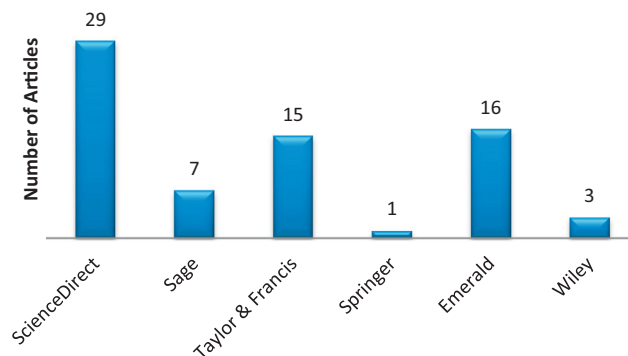
Fig. 2. Database distribution of articles.

Fig. 3. Year-wise distribution of articles.
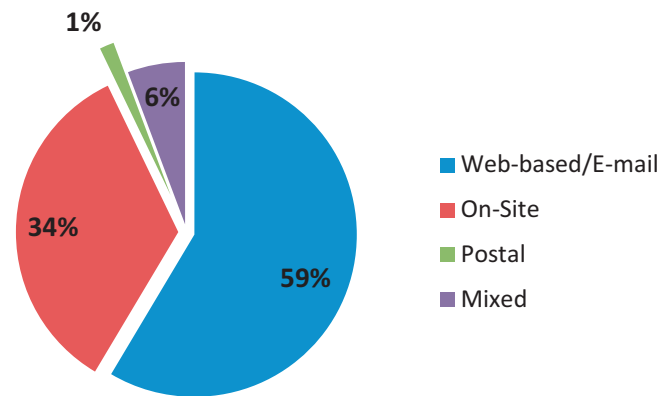
Fig. 4. Data collection methodology.

4.1.1. Major theories, models and frameworks

The 71 reviewed articles revealed the use of 28 different theories, models and frameworks, mainly from the technology adoption and social and psychological adoption paradigms (Appendix I). The technology adoption model (TAM) was the most-used model, appearing in 33% of the studies (24 of the 71 studies). The TAM model investigates the impact of technology on user behavior, using two key constructs: perceived usefulness (PU) and perceived ease of use (PEOU). The identified weaknesses of the TAM model in predicting technology adoption at the individual level required that some studies combine the theory with other models (Casaló et al., 2011; Jarvelainen, 2007) and extend the theory by adding other constructs (Ayeh et al., 2013a, b; Herrero and Martin, 2012; Morosan and Jeong, 2008). The theory of planned behavior (TBP) was used in 10 studies (14%) and the unified theory of acceptance and use of technology (UTAUT) was used in five studies (7%); the theory of reasoned action (TRA) was used in four (5%), while the elaboration likelihood model (ELM) was used in three (4%). Some studies combined as many as four models; TRA, TPB, TAM and IDT (Amaro and Duarte, 2015), while others combined three models (Al-hawari and Mouakket, 2012; Casaló et al., 2010; Kim et al., 2012; Lu et al., 2015).

4.1.2. Major antecedents/constructs

The most commonly used antecedents were those derived from the TAM model: PU and PEOU. PU implies that the user believes the technology will improve his/her performance, while PEOU implies that the user believes using the technology will be free from effort. The analyses of the tested relationships between PU and behavioural intentions reveal 15 tested relationships, and only one was rejected, while PEOU had 11 tested relationships with behavioural intention, and only 6 were accepted. To underscore the importance of satisfaction as an antecedent of intention, Ku and Chen (2015) found a positive relationship between website design quality and satisfaction, which leads to continued usage intention. Additionally, service quality is important for predicting customer satisfaction and purchase intention; thus, while the TAM explicitly explains intentions, it should be expanded to incorporate satisfaction in the online context (Hsu et al., 2012). The dependent variables were attitude, behavioural intentions and usage. Attitude was tested in 17 studies to predict behavioural intentions, and all were supported. Similarly, only one study used attitude to predict use behavior, and it was accepted. Approximately 12 studies used both PU and PEOU to predict attitude, and all were accepted.

4.2. Domain-specific Findings

This section will summarize the publications in each of the three domains. Although some constructs were the same in each of the three classifications, their contextual definitions differ. Consequently, this section will define the constructs used in the contexts of the three domains.

4.2.1. Consumer adoption of web-based services in tourism (CAWST)

CAWST covers the services consumers derive from tourism or hospitality organizations' websites. Generally, this domain classification focuses on these websites' influence on adoption. Out of the 71 reviewed studies, 57% (40 of 70) of the studies were published under this domain; 11 studies investigated tourism and hospitality websites' influence on destination image and destination choice (e.g., Chow and Murphy, 2011; Hosany and Prayag, 2013; Lee, 2009). Similarly, 13 studies investigated the influence of website design and quality on online booking and reservation (e.g., Chen, 2007; Kamarulzaman, 2007; Kucukusta et al., 2015). Additionally, trust, security and privacy were found to influence online booking and payment for tourism and hospitality products (Jarvelainen, 2007; Kim et al., 2006, 2013), as personal innovativeness influenced the

Table 1
Factors associated with CAWST.

Construct	Definition	Frequency	Author(s)
Website design quality	The technological aspects of a website, such as navigation, appearance, and layout	2	Ku and Chen (2015), Wen (2012)
Website service quality	The efficiency and ease with which a consumer completes a task using a website	1	Ku and Chen (2015)
Information quality	The reliability, currency, relevancy, completeness and accuracy of information on a website facilitating customers' decision making	4	Chung et al. (2015), Lin (2010), Escobar-Rodriguez and Carvajal-Trujillo (2013), Hsu et al. (2012), Wong and Law (2005)
Interactivity	The capacity for bidirectional contact and communication between the user and the supplier (website)	2	Ku and Chen, 2015; Herrero and Martin, 2012
Complexity	The degree to which purchasing travel online is perceived to be difficult	2	Amaro and Duarte (2015), Chen (2007)
Navigability	The level of ease/difficulty in moving throughout the website	1	Herrero and Martin (2012)
Satisfaction	Perceived degree of contentment with regard to a customer's prior purchase experience with a given electronic commerce firm	9	Bai et al. (2008), Chen and Kao (2010), Chung et al. (2015), Hosany and Prayag (2013), Hsu et al. (2012), Kim et al. (2006), Ku and Chen (2015), Lee (2009), Luque-Martinez et al. (2007)
Perceived enjoyment	Consumers' perceptions regarding the potential entertainment of internet shopping	3	Huang et al. (2013), Ku and Chen (2015), Sahli and Legoherel (2015)
Perceived Compatibility	The extent to which consumers believe that purchasing travel online fits/matches their lifestyle, needs, and shopping preference		Amaro and Duarte (2015), Chen (2007), Sahli and Legoherel (2015)
Transaction security	Consists of guarantees and warranties, the discretionary use of private information, the clarity of refund policies, and the risk-free nature of online transactions	4	Escobar-Rodriguez and Carvajal-Trujillo (2013), Kim et al. (2013, 2006), Ryan and Rao (2008)
Trust	An attitude of confident expectation in an online situation of risk that one's vulnerabilities will not be exploited	10	Al-hawari and Mouakket (2012), Amaro and Duarte (2015), Escobar-Rodriguez and Carvajal-Trujillo (2013), Kamarulzaman (2007), Kim et al. (2009, 2013), Munoz-Leiva et al. (2012), Nunkoo and Ramkisson (2013), Sahli and Legoherel (2015), Wen (2012)
Functionality	The clarity of search-related words, the usefulness of help functions, the level of technology on websites, and the overall operational efficiency in making online purchase decisions	5	Bai et al. (2008), Kaplanidou and Vogt (2006), Kim et al. (2013), Lin (2010), Ryan and Rao (2008)

Table 2
Factors associated with CASMT.

Construct	Definition	Frequency	Author(s)
Information accuracy	The correctness in the mapping of stored information to the appropriate state in the real world that the information represents	1	Filieri and McLeay (2013)
Information relevance	The extent to which a review is applicable and helpful for a task at hand and depends on different customer needs in specific situations	1	Filieri and McLeay, 2013
Information reliability	The extent to which information on social media is perceived to be credible		Chung and Koo, 2015
Valence of reviews	Positively or negatively framed reviews	2	Book and Tanford (2015), Sparks and Browning (2011)
Trustworthiness	The degree of confidence in the communicator's intent to communicate the assertions he/she considers most valid	2	Ayeh et al. (2013a, b)
Homophily	People's perceptions of others' similarity to themselves in terms of personal characteristics	1	Ayeh et al. (2013a, b)
Flow:	A state of the most enjoyable experience possible when a person is unconsciously engaged in an activity such that he or she becomes so absorbed that he or she loses the sense of self		Ku (2011), Wu and Chang (2005)
Perceived enjoyment	The degree of playfulness experienced while using social media for travel	5	Ayeh et al. (2013a, b), Chen et al. (2014), Chung and Koo (2015), Ku (2011), Wu and Chang (2005)
Source credibility	The believability of some information or its source on social media	2	Ayeh et al. (2013a, b), Wang (2015)
Reviewer expertise	The extent to which the reviewer is perceived as being capable of providing correct information	2	Ayeh et al. (2013a, b), Zhao et al. (2015)
Content novelty	The degree to which the information within a traveler's blog is perceived to be new	1	Chen et al. (2014)

Table 3
Factors associated with CAMIST.

Construct	Definition	Frequency	Author(s)
Involvement	The degree of interest in the mobile device or app	2	Chang et al. (2016), Kim et al. (2015)
Use context	Personal and environmental conditions that influence the use of mobile devices in purchasing or reserving tourism products or services	1	Kim et al. (2015)
Informativeness	The degree to which the mobile device or app contains relevant, timely, up-to-date and correct informative	1	Lai (2015)
Mobile self-efficiency	Degree of ability by which consumers consider themselves able to independently use mobile device or tourism apps in order to obtain information	1	Chang et al. (2016)
Information gain	Extrinsic pull motivations are connected to external, situational, or cognitive aspects	1	Chung et al. (2014)
Entertainment	Enjoyment, fun, pleasure and excitement that tourists experience when using mobile device or tourism apps	1	Lai (2015), Lu et al. (2015)

purchase of tourism products on tourism websites (Lee et al., 2007). In line with Webster and Watson (2002), Table 1 contains the antecedents, definitions, and frequency (the number of times used in the domain) and the authors who applied them in their studies.

4.2.2. Consumer adoption of social media in tourism (CASMT)

CASMT covers studies on social media's influence on intentions to travel. Of the 71 studies, 22 (31%) were published under this domain. Among social media platforms, blogs dominated research themes (Chen et al., 2014; Wang, 2011, 2012). Theories, frameworks and models used in this domain included TAM (Casaló et al., 2010; Lin, 2007) and an extension of TAM (Ayeh et al., 2013a, b), TPB (Jalilvand and Samiei, 2012), TRA (Hsiao et al., 2013), ELM (Filieri and McLeay, 2013), and flow (Wu and Chang, 2005; Ku, 2011). Some had a combination of models or theories: ELM and TPB (Wang, 2015), TPB, TAM and SIT (Casaló et al., 2010). Additionally, a majority of the studies built their conceptual frameworks on the electronic word-of-mouth (e-WOM) theory, with some extensions and modifications (Sparks and Browning, 2011; Jalilvand et al., 2012; Zhao et al., 2015; Wang, 2011). Other antecedents are shown in Table 2.

4.2.3. Consumer adoption of mobile information system in tourism (CAMIST)

CAMIST represents studies dealing with consumers' adoption of mobile information systems in tourism. The ubiquity of smartphones and tablets and the corresponding increase in mobile application development are expected to greatly impact

the tourism industry. As an information-intensive sector, information interchange is very crucial for both service providers and tourists. In spite of the importance of these emerging tools for the tourism industry, research on CAMIST in tourism remains scarce. Specifically, 11% (8 out of 71) of the reviewed articles were in this domain. The first study in this stream was conducted in 2008 (Kim et al., 2008), with 2015 publishing the highest number of studies (see Appendix I). Two studies used the UTAUT model (Lai, 2015; No and Kim, 2014), one study used TAM (Kim et al., 2008), and another used TAM in combination with IDT and SCT (Lu et al., 2015). Others used ELM, DTPB, GT, NT and UDT (see Appendix I). The antecedents and authors who applied these models in this domain are shown in Table 3.

5. Discussion/implications

The aim of this study was to provide a review of consumers' adoption of e-tourism; antecedents of e-tourism adoption; synthesis of the theories, models and frameworks and a classification based on a grouping of relevant studies. Consequently, the 71 reviewed articles were classified into studies on CAWST, CASMT and CAMIST.

CAWST depended on website attributes and consumers' personal characteristics. Consumers consider security, navigation functionality and information quality as important website attributes for online tourism transactions (Kim et al., 2013; Chung et al., 2015). Wen (2012) found that quality of website design has had a positive influence on consumers' attitude towards online purchases of travel and tourism products. Particularly, consumers' adoption of a particular website for hotel bookings was influenced by the information available on the website, security, and content-motivating visuals (Wong and Law, 2005; Kim et al., 2006; Ryan and Rao, 2008). Incorporating privacy assurance on travel websites increases the perceived usefulness of services and decreases customers' privacy concerns, thus influencing adoption (Lee and Cranage, 2011). In fact, consumers' emotional involvement, attitude, innovativeness and flow are important personal characteristics for the purchase of travel online (Kim et al., 2012; Huang et al., 2013). However, consumers of low-cost airlines who purchase tickets online are influenced mostly by their trust and habits in using such websites (Escobar-Rodriguez and Carvajal-Trujillo, 2013).

CASMT is influenced by pre-trip, during-trip and post-trip behaviors. Additionally, consumers' personal characteristics, the characteristics of the source and the elements of the content influence social media content use for travel information search. Thus, experienced, involved and innovative consumers are more predisposed to use social media for travel information search (Ku, 2011). Those who belong to the same network and those outside the network can access shared content; thus, source credibility (expertise and trustworthiness) becomes an important determinant of content believability (Ayeh et al., 2013a, b). Furthermore, novelty, understandability and interesting elements in a travel blog influence adoption (Chen et al., 2014). Advice from the online community is more influential than marketer-generated content; consequently, consumers are influenced most by negative reviews, especially when those reviews are negatively valenced (Sparks and Browning, 2011).

CAMIST comprises mobile devices and mobile applications (Shaikh and Karjaluoto, 2015a, b). Perceived usefulness, ease of use and informativeness will allow mobile technologies to continue to grow among tourism consumers (Chang et al., 2016), even though these factors are not seen to pose an immediate threat to traditional personal computers (PCs) (Okazaki and Hirose, 2009). In terms of personal factors, trip and technology experiences are important determinants; thus, frequent travelers have a higher adoption rate of CAMIST (Kim et al., 2008). Consumers show more satisfaction with mobile applications that contain more travel-related information (No and Kim, 2014), which are, thus, more gratifying than the PC internet (Okazaki and Hirose, 2009).

5.1. Contributions of the study

First, the identification of three domains that influence consumers' adoption of e-tourism –CAWST, CASMT and CAMIST – indicates that research in these areas is uneven. While there is preponderance of research on CAWST and CASMT, there is an evident dearth of research on CAMIST. Increasing mobile devices and applications are emerging, and tourism and hospitality service providers are increasingly deploying these technologies to ensure consumer satisfaction. Therefore, studies on the factors that influence the adoption of these mobile technologies are essential. The growth of mobile technology use across different groups indicates that social and cultural factors play a role in their adoption. Consequently, Lu et al. (2015) suggested investigating potential differences in user needs from travel apps across different groupings and cultures.

Second, this study further reveals that the models used in the majority of the studies were the TAM, TPB, UTAUT and TRA. Some studies used the above models according to their original postulations, while others modified or extended them (Huang et al., 2013; Kim et al., 2009). Additionally, several studies borrowed constructs from established models and frameworks in the social and psychological disciplines (Chung et al., 2015; Filieri and McLeay, 2013). Furthermore, because studies on CASMT are rooted in the e-WOM literature, the majority of the studies adopted e-WOM as a conceptual model but borrowed constructs mainly from TAM. Similarly, the most-tested paths were drawn from the TAM constructs, which included the PU, PEOU, Attitude (ATT) and Behavioral intention (BI). For instance, effect of ATT on BI was tested in 17 studies, which all were accepted; PU on BI were tested in 15 studies, and 14 (93%) were accepted; and PEOU on BI was tested

by 11 studies, and 6 (54%) were accepted. The path analysis of the proposed UTAUT constructs and their acceptance rates were equally high.

Third, the reviewed studies show that the influence of website design quality on destination image perception and choice featured prominently in the CAWST classification. Additionally, security, privacy and trust were highlighted as important considerations in consumers' booking, reservation and payment for tourism services on tourism and hospitality firms' websites. The majority of the studies on the CASMT classification focused on adoption via Facebook, Twitter and blogs. However, many other social media platforms that are very important in the tourism and travel industries, such as TripAdvisor, YouTube, Lonely Planet, Flickr, Delicious and Digg, have received scant attention.

Fourth, the reviewed studies offered many practical implications that can aid managers in the tourism and hospitality sector to strategically position their services in the emerging information technology and systems era. In this vein, for managers of the tourism and hospitality services to attract and retain customers, they must understand the role of website design, social media and mobile technology as e-tourism platforms. Specifically, Ku and Chen (2015) suggest that managers should ensure that e-tourism websites incorporate features that ensure quick navigation, interaction and creativity in packaging information content enhanced through audio and video clips, which have the potential to enhance tourists' perception of reality. Destination image perception and choice constitute an important research stream in tourism studies. The emergence of the internet has helped to better inform tourists about destinations. For instance, Sparks and Pan (2009) argue that most Chinese tourists obtain information on possible destinations online. It is therefore imperative for managers to incorporate features on e-tourism websites that enhance a positive perception of destination image.

Finally, in order to ensure effective participation in firm-hosted online travel communities, Casaló et al. (2010) suggest that firms promote group cohesion and communication among community members by encouraging shared identity; this can be achieved by organizing meetings among the community members. In this way, new members who are likely to visit the destination can be introduced to the community. Finally, Chang et al. (2016) posit that managers should develop mobile applications that are contextually customizable in relation to the needs of the tourist.

5.2. Limitations and future research directions

The study is not without limitations. First, a major limitation of the study is that it was based on quantitative studies only. Reviews that incorporate both qualitative and quantitative studies are more comprehensive. Another limitation of this study is that it did not incorporate other sources, such as conference proceedings, book chapters, and conceptual papers, which might have impacted the study differently. Additionally, the literature search was conducted from October 2015 to January 2016; thus, only one paper was included for 2016. Other publications beyond January 2016 are obviously not included in the study. Finally, while the literature search was extensive, we may have missed some publications within the period of inclusion.

One outstanding finding of the study is the scant research on CAMIST, which includes the adoption and use of mobile devices and applications. Travel information is dynamic and requires context-specific mobile applications; therefore, more research should be focused on the factors influencing the adoption of these mobile technologies. Second, Facebook and blogs were the most commonly studied platforms in the CASMT domain. Important platforms such as YouTube, Delicious, Digg, and Lonely Planet are also very important for travel and tourism; further research should incorporate these networks into the literature on social media in tourism. Finally, the reviewed studies found an uneven geographical spread of studies. While many studies have been conducted in Asia (Taiwan and China), the USA, and most parts of Europe, some emerging markets such as India and Africa, are largely absent, ignoring the increase in internet subscriptions in these emerging markets. Future research on these emerging markets will likely provide valuable insights.

Acknowledgment

Appendix I.

S/N	Author/ Year	Purpose	Country	Methodology			Independent Variable(s)	Dependent Variable(s)	Theory /Model/ Framework	Findings
				Data Collection	Sample/ Unit of Analysis	Data Analysis				
Consumer adoption of web-based services in tourism (CAWST)										
1	Ku & Chen (2015)	To investigate how design and service quality of public tourism websites affect satisfaction	Taiwan	Online survey	256; Individuals	Structural equation modelling (SEM)	Satisfaction, Website Design Quality Enjoyment, Web ervice Quality. Interactivity as moderating variable	Continued website usage intention	TAM, EUS	There is positive relationship between website design quality and satisfaction. Also, a tourist's satisfactions positively influences his continued usage intention.
2	Amaro & Duarte (2015)	To examine factors influencing purchasing travel online	Portugal	Online survey	1,732; colleagues and acquaintances	SEM	Compatibility, Perceived Relative Advantages, Attitude, Complexity, Perceived Behavoural Control, Communication, Trust, Perceived Risk	Intentions to purchase travel online	TRA, TPB, TAM, IDT	Intentions to purchase travel online are mostly determined by attitude, compatibility and perceived risk.
3	Kim, Lee & Chung (2013)	To examine the influence of trust in online tourism repurchase intention	Republic of Korea	Online survey	340, potential online tourism shoppers	SEM	Trust, Benevolence, Integrity, Ability, Transaction security, Navigation functionality, cost effectiveness	Repurchase intention	TCT	It found that transaction security, navigation functionality and cost effectiveness affect trust which in turn affect repurchase intention.
4	Chung, Lee, Lee & Koo (2015)	To investigate the relationship between the qualities of DMO and continuous usage intention	Republic of Korea	Online survey	169; tourists	SEM	Destination website usefulness, Destination website satisfaction, Destination website quality confirmation	Usage Intention	ECM	Information quality was an important factor in deciding a destination website. It also found that the continuance to visit the website influence the use of the website

							(information quality, service quality, design quality)		
5	Sahli & Legoherel (2015)	To examine the factors influencing intention to book tourism online	Tunisia	Online survey (Facebook)	389; internet users	SEM,	Perceived enjoyment, Subjective norms, Attitude, Compatibility, Perceived usefulness, Perceived ease of use, Perceived Behavioural control, Trust, Risk, Benefit	Intention to book online	DTPB, TAM	The Tourism Web Acceptance Model (T-WAM) model, ncorporating variables from different fields of research, is a robust model that explains 50.6% of the variance for booking tourism products online. Thus, the T-WAM predicts behavioral intention well, with a considerable empirical advantage compared to other models used.
6	Nunkoo & Ramkisson (2013)	To examine travelers intention to purchase tourism products online	Australia	Self-administered survey	438; tourists	SEM	Attitude, Perceived usefulness, Perceived ese of use, Trust, Perceived risk	Intention to book	TAM	Perceived usefulness, trust, and perceived risks are determinants of attitude to e-purchasing, which in turn significantly influences e-purchase intent. Also, perceived ease of use exerts a significant influence on perceived usefulness and trust while the latter negatively influences perceived risks.
7	Lee (2009)	To investigate how destination image, attitude, motivation affect future behavior of tourists	Taiwan	Face-to-face	179, tourists	SEM	Satisfaction, Image, Attitude, Motivation	Future Behaviour	TPB	Destination image is a critical influence on tourist satisfaction in wetland.
8	Wen (2012)	To investigate factors affecting consumers' online purchase intention	USA	Online survey	559, online travel buyers	SEM	Trust, Quality of website, Attitude	Purchase intention	TPB	Quality of website design was had positive influence on consumers attitude towards online purchase of travel and tourism products
9	Liu & Zhang (2014)	To investigate the factors influencing travelers choice of online channel	China	Mixed method: interviews (operators); online and offline questionnaire administration.	437, online hotel bookers	SEM	Information search intention, product related factors, Channel related factors	Purchase intention	Purchase intention	All hypotheses were supported. That is information search intention, product related factors and channel related factors positive influenced purchase intention.
10	Castaneda, Frias,	To investigate the factors	Spain	Fact-to-face,	340, tourists	SEM	Future use,	Actual use	TAM	Perceived usefulness is having

	Rodriquez (2009)	driving ICT as a source of information in the tourism business					Attitude, Usefulness, Ease of use			stronger effect on actual use than perceived ease of use.
11	Sparks & Pan (2009)	To investigate Chinese outbound tourist's values in terms of destination attributes and attitudes towards international travel	China	Face-to-face	496, Chinese tourists	SEM	Subjective norm, Attitude, Constraints and perceived control, Importance of destination attributes, Likelihood of Australia, Information sources	Intention to visit Australia	TPB	Subjective norm was positively related to behavioural intention to travel.
12	Herrero & Martin (2012)	To investigate factors influencing the use of rural tourism accommodation website	Spain	Face-to-face	1083, Spanish tourism web users	SEM	Perceived usefulness, (information n accommodation, information on destination(Perceived ease of use (interactivity of the website, navigability of the website)	Intention	TAM	Perceived usefulness and perceived ease of use positively influenced intention
13	Al-hawari & Mouakket (2012)	To investigate how offline factors trigger online continual usage by customers of airline e-ticket booking services	UAE	Face-to-face	258, students	SEM	Image, Trust, Employee-based service quality, Subjective norm	Online continual Usage	TTPT, CDT, IDT	Employee-based service quality was provided to have high, significant and positive relationship with pre-existing offline trust and pre-existing offline image
14	Kim, Lee, Lee & Song (2012)	To examine the factors influencing travel decisions overseas among women	Republic of Korea	Online survey	400; South Korean tourists	SEM	Behavioural desire, Attitude, Subjective Norms, Negative anticipated emotions, Positive anticipated emotions	Behavioural intention	MGB, TRA, TPB	All hypotheses were supported. Attitude, subjective norms, negative anticipated emotions, and positive anticipated had a significant effect on behavioural desire.
15	Lin (2010)	To investigate the factors influencing the users acceptance or rejection of e-travel sites	Taiwan	Online survey	242, students in Taiwan	SEM	Perceived ease of use, Perceived usefulness, User interface,	Behavioural intention	TAM	All hypotheses were supported except functionality and perceived usefulness

						Information quality, functionality			
16	Huang, Backman, Backman & Moore (2013)	To investigate using TAM, tourists' experience and behavioural intention within a 3D tourism destination	USA	online survey	198, students and 3D users	SEM	Enjoyment, Positive emotion, Emotional involvement, Flow, Perceived ease of use, Perceived usefulness	Behavioural intention	TAM	Perceived ease of use and perceived usefulness positively influenced enjoyment. Positive emotion, emotional involvement and flow has positive and significant influence on behavioural intentions.
17	Kim, Kim & Shin (2009)	To examine the factors influencing the acceptance of airline B2C ecommerce websites	Republic of Korea	Online survey	495, Korean airline customers	SEM	Subjective norms, Attitude, eTrust, Perceived usefulness, Perceived ease of use	Intention	TAM	All hypotheses were supported.
18	Wen (2013)	To examine the impact of factors influencing travelers' attitude on online shopping intentions	USA	Online survey	560; American tourists	SEM	Perception of convenience, Perception of merchandise, Perception of Value, Shopping experience	Purchase Intention	TPB	Travelers have a more positive attitude toward travel portal websites than toward companies' branded websites in terms of perception of convenience, perception of merchandise and perception of value
19	Hosany & Prayag (2013)	To examine tourists emotional profiles and their post-consumption evaluations of satisfaction and intention to recommend	UK	Postal survey	520, English tourists	SEM	Joy, Love, Positive surprise, Unpleasantness,	Satisfaction, Intention to recommend	CNTT	Tourists who were delighted were seen to recommend the destination to others.
20	Lee & Cranage (2011)	To examine how privacy assurance affects personalization and the role it plays in influencing behavioural responses	USA	Experiment (website analysis)	120, undergraduate student	Analysis of variance (ANOVA) and Analysis of covariance (ANCOVA)	Perceived usefulness, Privacy concern, Personalization, Privacy assurance	Adoption intention, Self-Disclosure intention	Personalisation	Enhancing privacy assurance increases the perceived usefulness of services and decreases customer privacy concerns. Behavioural responses are positively related to the perceived usefulness of services
21	Chow & Murphy (2011)	To explore the predictive power of psychographic and demographic variables on intended and actual travel behaviours	China	Triangulation (Qual interviews); Face-to-face and survey	397, Chinese outbound tourists	Multiple regression	Sightseeing, Culture and heritage activity, Shopping and Dining and Entertainment	Intention and Actual travel behavior	Intend, Actual	Actual and intention to travel were influenced by sightseeing, culture and heritage activity, shopping and dining, and entertainment.
22	Chen & Kao (2010)	To investigate the effects	Taiwan	Face-to-face	240,	SEM	Process quality,	Behavioural	SERVQUAL	Tourists who are satisfied show

		of process quality, outcome quality, satisfaction and behavioural intentions on online travel agencies			Taiwanese tourists		Outcome quality	intention, Satisfaction		favourable behavioural intention towards the destination
23	Wu, Chiu, Yang & Li (2011)	To determine factors influencing tourism website usability	Taiwan	Face-to-face	256, Taiwanese tourists	SEM	Performance expectancy, Effort expectancy, Social Influence, Facilitating conditions, Behavioural intention	Use behavior	UTAUT	Performance expectancy, effort expectancy, social influence, facilitating conditions all influence behavioural intention. On the other hand, behavioural intention influences use behavior.
24	Martin & Herrero (2012)	To determine factors influencing users' psychological factors on online purchase intention	Spain	Face-to-face	1083, Spanish rural tourists	Regression analysis	Performance expectancy, Effort expectancy, Social influence, Facilitating conditions, Innovativeness	Online purchase intention	UTAUT	Purchase intention depends on user performance and effort expected by the user. Also, the higher the innovativeness of the user the higher the purchase intention.
25	Escobar-Rodriguez & Carvajal-Trujillo (2014)	To determine factors influencing purchase of flights from low-cost carrier websites	Spain	Face-to-face	1096, Spanish travelers	SEM	Performance expectancy, Effort expectancy, Social influence, Facilitating conditions, Hedonic motivation, Price saving orientation, Habit, Innovativeness, Trust, Information quality, Perceived security, Perceived privacy, Behavioural intention	Use Behaviour	UTAUT	In order of importance, the predictors of online purchase intention are trust, habit, price saving, facilitating conditions, performance expectancy, effort expectancy, innovativeness, hedonic motivation and social influence.
26	Rasty, Chou & Feiz	To investigate the role of	Iran	Online survey	386, tourists	SEM	Internet travel	Purchase	ADC	Those who purchase travel

#	Author	Purpose	Country	Method	Sample	Analysis	Variables	Dependent	Theory	Findings
	(2013)	internet advertising design, tourists attitude and internet travel advertising effect on tourist's purchase intention			in Iran		advertising effect, Internet advertising attitude, Internet travel advertising content design, Involvement	intention		products are those who are highly involved. Also, Those who have positive internet ad attitude are found to have high purchase intention
27	Kucukusta, Law, Besbes & Legoherel (2015)	To investigate factors influencing Hong Kong online users' intention to book tourism products	Hong Kong	Face-to-face	213, Hong Kong online users	ANOVA, regression analysis	Perceived usefulness, Ease of use	Behavioural intention	TAM	Perceived usefulness is found to be more influential than ease of use in predicting intention to book for tourism products
28	Munoz-Leiva, Hernandez-Mendez & Sanchez-Fernandez (2012)	To investigate the factors influencing tourists' use behavior of travel 2.0 websites	Spain	Online survey	440, Spanish travel 2.0 website users	SEM	Trust, Usefulness, Attitude, Ease of use	Intention	TAM	Differences in website determines the behavior of the user
29	Hsu, Chang & Chen (2012)	The examine the impact of website quality on customer satisfaction and purchase intention	Taiwan	Online survey	534, Taiwanese tourists	SEM	Perceived playfulness, Perceived flow, Information quality, System quality, Service quality	Purchase intention, Customer satisfaction	SOR	Service quality is very important in predicting customer satisfaction and purchase intention
30	Kaplanidou & Vogt (2006)	To examine the role of website influencing travel intentions	USA	Online survey	2,342 American online travel buyers	SEM	Accessibility, Usefulness, Ease of navigation, content motivating visuals, Content trip info functionality	Intention	TAM	Website usefulness was an important factor in predicting online travel
31	Lee, Qu & Kim (2007)	To examine how online traveler decision-making is influenced by innovativeness	Republic of Korea	Online survey	235, South Korean travelers	SEM	Attitude, Subjective norm, Innovativeness	Intention	TRA	Highly innovative travelers were influenced by their positive attitudes
32	Kamarulzaman (2007)	To explore consumers' adoption of internet shopping on travel services	UK	Online survey	300 UK travel shoppers	SEM	Trust, Perceived risk, Perceived ease of use, Perceived usefulness, Innovativeness, Involvement, Opinion Leadership	Intention	TAM	Individual traits are important in perceived useful in adopting new technology

33	Wong & Law (2005)	To understand the factors influencing hotel bookers reservation of rooms through websites	Hong Kong	Omnibus survey (Face to face)	638 Hong Kong travelers	Regression analysis	Information quality, Sensitivity content, Time	Intention	Motivation	Information available on the website was important influencing hotel booking through website
34	Luque-Martinez et al (2007)	To explore the factors influencing the intentions to use internet to search for holiday information	Spain	Face to face	286 international tourists in Spain	SEM	Satisfaction, Attitude, Ease of use, Usefulness	Intention	TAM	The TAM model explicitly explains intentions but should be expanded to incorporate satisfaction on online context
35	Kim, Ma & Kim (2006)	To investigate the factors influencing Chinese online reservations intentions	China	Face to face	206 guests in a Chinese hotel	Regression analysis	Information needs, Service performance & reputation, Convenience, Price benefits, Technological inclination, Safety	Intention, e-Satisfaction	Customer satisfaction	Security and information were the most important consideration for booking a hotel through a website
36	Ryan & Rao (2008)	To investigate holiday users of internet ease of use, functionality and novelty of hotel websites	New Zealand	Face to face	440, International visitors to New Zealand	SEM	Secure system, Perceived ease of use, Perceived usefulness, Behaviour	Intention	TAM	Security is an important consideration on hotel booking
37	Jarvelainen (2007)	To investigate factors that influence consumers' online purchase of travel products in a secure environment	Finland	Online survey	1501 Finnish internet users	SEM	Perceived usefulness, Perceived ease of use, Prior online experience, Task ambiguity, Social environment	Intention	TAM, MRT, SIM	Perceived usefulness has a stronger effect on behavioural intention than perceived ease of use.
38	Chen (2007)	To examine the factors influencing online purchase of airline tickets	Taiwan	Face to face	355 free independent Taiwanese travelers	SEM	Attitude, Social support, Perceived confidence, compatibility, Relative advantage, Complexity, Peer Influence, External Influence, Perceived Capability	Intention	DTPB	Online purchase of tickets will continue to grow as users show positive attitude
39	Bai, Law & Wen (2008)	To test a conceptual model of website quality	China	Face to face	180 hotel guests	SEM	Functionality, Usability,	Intention	SERVQUAL	Website quality positively influences customer satisfaction

		on customer satisfaction and purchase intention					Customer satisfaction			and it in turn influences purchase intentions
40	Morosan & Jeong (2008)	To explore if the modified TAM can evaluate users evaluation of different channels of hotel online reservations	USA	Online	914, US students	SEM	Perceived usefulness, Perceived ease of use, Perceived playfulness, Attitude	Intention	TAM	Perceived usefulness was a strong predictor of attitude
Consumer adoption of social media in tourism (CASMT)										
1	Filieri & McLeay (2013)	To investigate the behavioural consequences of e-wom	Italy	Online survey;	578; individuals	SEM	Product ranking, Information accuracy, Information quantity, Information relevance, Information value added, Information understanding, Information timeliness, Information completeness and Information adoption	Information Adoption	ELM	Central routes – information timeliness, information understandability, information relevance, information accuracy, value-added information and information completeness; and peripheral route – information quality, product ranking were all seen to predict tourist choice of destination
2	Parra-Lopez, Bulchand-Gidumal, Gutierrez-Tano & Diaz-Armas (2011)	To examine the factors that influence the use of social media to take travel online	Spain	Online survey	404, individuals who take travel online	SEM	Incentives on use and adoption (, Benefits of use, Costs of use	Intentions of using social media	INT	Intentions to use social media are directly influenced by the perceived benefits of that use (functional, psychological and hedonic and social); however, the costs do not significantly affect the predisposition to use such technologies. It is also shown that there is a series of incentives such as altruism, availability, individual predisposition or trust in the contributions of others which facilitate and promote the use of this type of technology when organizing and taking tourist trips
3	Book, Tanford, Montgomery & Love (2015)	To examine the role of price on online travel reviews	USA	Hand-delivered questionnaire	327, undergraduate students	MANCOVA, ANOVA	Customer reviews, Price, Dissonance,	Intention to purchase travel	CDT	Social influence had a strong effect on both resort evaluations and postdecision dissonance. Nonunanimous reviews reduced the prevailing valence of

									reviews, but increased dissonance. Price may not be the predominant influence on decisions, as previously thought.
4	Casalo, Flavian & Guinaliu (2010)	To investigate the factors influencing intention to participation in firm-hostel online travel communities	Spain	Online survey	456, online community members	SEM	Attitude, Subject norm, Perceived behavioural control, Perceived usefulness, Perceived ease of use, Identification	Intention to participate	TPB, TAM & SIT	Subjective norm was not supported. Attitude, perceived behavioural control, perceived usefulness, perceived ease of use were all supported.
5	Ayeh, Au & Law (2013)	To examine online traveller's perception of the credibility of User Generated Content	Singapore	Online survey	661, Singaporean tourists	SEM	Attitude, Trustworthiness, Expertise, Homophily	Intention	Source Credibility	There is significant support for the impact of source credibility perceptions on attitude. All hypothesis were supported
6	Wang (2011))	To investigate the factors influencing gastronomy blogs in predicting readers' intention to taste local food and beverages	Taiwan	online survey	329, bloggers	SEM	Inspiring taste desire, Forming taste awareness, Facilitating interpersonal interaction	Behavioural intention	e-WOM	Experiencing appeal, generating empathy, providing image, presenting guides, social influence and cybercommunity were positively related to behavioural intention. Delivering knowledge was not found to be positive.
7	Sparks, Perkins & Buckley (2013)	To examine the influence of online travel reviews on attitudes and purchase intentions	Australia	Online survey	537, Australian tourism online community members	SEM	Attitude, Quality belief, Trust, Utility, Corporate social responsibility	Purchase intention	ATT	Tourists treat specific information posted by customers as most useful and trustworthy. Their purchase intention is influenced by their attitude toward the resort and their belief in CSR
8	Ayeh, Au & Law (2013)	To investigate the factors influencing consumers' use of consumer-generated media for media planning	USA	Online survey	535, US tourists	SEM	Attitude, Perceived enjoyment, Perceived similarity, Perceived ease of use, Usefulness, Trustworthiness	Intention	TAM	Using control variables such as age, education, gender and internet usage frequency, it found that perceived enjoyment and ease of use have greater effects on CGM for travel planning.
9	Ku (2011)	To investigate the effect of virtual community on travel decision	Taiwan	Online survey	435, Taiwanese online forum users	SEM	Behavioural intention, Flow experience orientation, Perceived enjoyment, Perceived usefulness	Actual participation	TAM	Flow experience, perceived enjoyment are positively related to use the community. Also consumers behavioural intention influences their actual participation in the community
10	Chen, Shang & Li	To investigate the	Taiwan	Online survey	179,	SEM	Perceived	Intention to	e-WOM	Novelty, understandability and interest

	(2014)	characteristics of travel blogs that influences travel decisions.			Taiwanese students		enjoyment of blog, Novelty, Reliability, Understandability, Interestingness	visit		elements in a blog affect behavioural intention to visit
11	Jalilvand & Samiei (2012)	To investigate the impact of electronic WOM (eWOM) on a tourism destination choice	Iran	Face-to-face	296, inbound tourists in Iran	SEM	Attitude, Subjective norm, Perceived behavioural control, electronic word of mouth	Intention to travel	TPB	eWOM, attitude, subjective norm, perceived behavioural control, were found to positively influence attitudes towards visiting the destination.
12	Sparks & Browning (2011)	To investigate the effect of online reviews on hotel booking intentions and perception of trust	Australia	Online survey	5500, Australian tourists	ANOVA	Framing, Valence, Trust	Booking intention	eWOM	Consumers are influenced by negative reviews especially when are the reviews are negative
13	Hsiao, Lu & Lan (2013)	To determine how storytelling blogs affect readers' intention to adopt travel products	Taiwan	Online survey	368, Taiwanese	SEM	Attitude, Empathy, Perceived aesthetics, Narrative structure, Sell reference	Intention	TRA	Well-designed layout can effectively increase readers' intention and positive feelings.
14	Casalo, Flavian & Guinaliu (2011)	To investigate factors influencing tourists to follow online community information for travel planning	Spain	Online survey	456, online community members	SEM	Attitude, Perceived usefulness, Trust	Intention to follow advise	TAM	Travelers' attitude toward advise in an online community strongly influences intention
15	Zhao, Wang, Guo & Law (2015)	To investigate the impact of reviews on travelers' hotel booking intentions	China	Face-to-face and online survey	269, Chinese hotel bookers	Correlation, regression analyses	Usefulness of online reviews, Reviewer expertise, Timeliness of online reviews, Volume of online reviews, Positive online reviews, Negative online reviews, Comprehensiveness of online reviews	Booking intentions	eWOM	No relation between negative online reviews and booking intentions. Also, relation between positive reviews and booking intentions was not statistically significant
16	Wang (2015)	The investigate the influence of eWOM on outbound tourists' intention to visit a	China	Online survey	195, Chinese outbound travelers to Finland	SEM	Attitude, Argument quality, Source credibility	Intention	ELM, TPB	Attitude about the destination was influenced by eWOM

		destination								
17	Ho & Lee (2015)	To investigate the influence of travel blogs on purchase intention	Taiwan	Online survey	288, Taiwanese bloggers	SEM	e-Loyalty, Interactivity, e-Satisfaction, Information quality	Purchase intention	RQ	Information, e-trust, e-satisfaction, e-loyalty have influence on purchase intention
18	Lin (2007)	To examine the impact of online information quality features on the sustainability of virtual communities	Taiwan	Online survey	165, virtual community members	SEM	Sense of belonging Perceived usefulness, Perceived ease of use, Information quality, System quality, Service quality, Offline activities	Intention	TAM	Perceived usefulness, ease of use and offline activities are the determinants of sustainability in virtual communities.
19	Wu & Chang (2005)	To explore the factors that affect the experience of flow and how flow affects the transaction intentions of the community members	Taiwan	Online	286 online community members	SEM	(Flow)Enjoyment, Time distortion, Machine Interactivity, Person interactivity, Ability, Benevolence, Integrity, Predictability	Intention	FLOW	Interactivity and trust affect community members' relationship
20	Chung & Koo (2015)	To examine how social media influences travel information search from a value perspective	Republic of Korea	Online	695, Korean residents	SEM	Information reliability, Enjoyment, Complexity, Effort, Perceived value,	Usage	VAM	Social media use in travel information search has been perceived as benefits (information reliability & enjoyment) and sacrifices (complexity, perceived effort). All have been shown to affect travel information search. However, enjoyment makes direct effect on social media use.
21	Wang (2012)	To investigate the affective, cognitive and cyber-interactive elements influencing travel blog readers' behavioural intention to travel	China	Online survey	323, blog participants	SEM	Building affective images, Building cognitive images, Facilitating interpersonal interaction	Behavioural intention	eWOM	Travel blog participants' perception of destination image is a strong predictor of travel intention. Building affective images, cognitive images and facilitating interactions significantly influenced bloggers perception of destination images
22	Jalilvand, Samiei, Dini & Manzari (2012)	To examine the relationship between eWOM, destination	Iran	Face-to-face	264, international tourists in	SEM	Destination image, Attitude toward	Travel intention	e-WOM	eWOM positive influenced destination image, destination image and attitude positively influence travel intention

		image, tourist attitude and travel intention			Iran		destination, eWOM			

Consumer adoption of mobile information system in tourism (CAMIST)

1	Kim, Chung, Lee & Preis (2015)	To investigate how mobile tourism shopping influences continuous usage	Republic of Korea	Online survey	357; individuals	SEM	Perceived Usefulness, Site Attachment, Source Credibility, Argument Quality. Social Network Involvement (Moderator variable)	Continued Usage of Mobile Tourism Shopping	ELM	Perceived usefulness positively influences mobile tourism shopping as also site attachment was seen to positively influence mobile tourism shopping
2	Lai (2015)	To examine factors influencing use of mobile App for tourism use by extending the original UTAUT model	China	Interviewer-administered survey	205; residents	SEM	Performance expectance, Effort expectancy, Social influence, Facilitating conditions, Informativeness, Entertainment	Behavioural intention	UTAUT	Informativeness has the greatest impact on Behavioural intention to use AMTG. Also, PE, EE, SI and FC have all direct positive effect on BI
3	Chang, Chou, Yeh & Tseng (2016)	To examine the factors influencing usage intention of Taiwan Medical travel app	Taiwan	Self-administered survey	366; Chinese medical tourists	SEM	Attitude, Perceived behavioural control, App involvement Perceived ease of use, Perceived usefulness, social influence, E-wom, Mobile self efficiency	Usage intention	DTPB	The higher the behavioural control the higher the usage intention. When the PEOU & PU are high, usage intention would also be high
4	Okazaki & Hirose (2009)	To examine the factors affecting the use of mobile internet as a media source for travel decisions	Japan	Online survey	992, Japanese tourists	SEM	Attitude (traditional media, mobile internet, PC internet), Satisfaction (traditional media, mobile internet and PC internet)	Habitual Usage of mobile internet	GT, NT	Satisfaction from mobile internet and attitude towards mobile internet will be stronger for female than for male.
5	Chung, Koo & Kim	To investigate the impact	Republic of	Face-to-face	101,	SEM	Perceived	Behaviour	UDT	Escape, event attraction are significantly

	(2014)	of Booth Recommender System (BRS) service on usage behavior	Korea		exhibition visitors		usefulness, Threats to freedom of choice, Information gain, Escape, Event attraction			related to perceived usefulness while information was not significant. Perceived usefulness directly mediate on unplanned behavior
6	No & Kim (2014)	To examine determinants of intention to adopt smartphone for travel purposes	Republic of Korea	Online survey	400, travelers	SEM	Usefulness, Ease of use, Social influence, Satisfaction,	Intention to use smartphone	UTAUT	Usefulness, ease of use, social influence and satisfaction influence travelers' use of smartphone for travel planning
7	Kim, Park & Morrison (2008)	To examine the factors influencing the adoption of mobile technology in tourism	USA	Online survey	283, American travelers	SEM	Attitude, Perceived usefulness, Perceived ease of use, Technology experience, Trip experience	Intention to travel	TAM	Trip experience and technology experience positively influenced perceived performance and perceived ease of use.
8	Lu, Mao, Wang & Hu (2015)	To investigate factors that influence travel app adoption by tourists visiting rural tourism sites in China	China	Face-to-face	613	SEM	Self-efficacy, Performance outcome, Personal outcome (Information, Navigation, Marketing, Socialization, Safety, Entertainment, Transaction) Advantage, Compatibility, Complexity, Social norms	Intention to travel	TAM, IDT, SCT	PU, PEOU and compatibility were found to influence travel app adoption. However, compatibility was the best perception-based indicator of attitude to adopt travel app. in the SCT, performance outcome expectation were better; high expectation for transaction functions. Social norms did not have impact.

IDT – Innovation Diffusion Theory , TAM – Technology Acceptance Model; EUS – End-User Satisfaction; ELM – Elaboration Likelihood Model; TRA – Theory of Reasoned Action; TPB – Theory of Planned Behaviour; INT - Intentions to use social media; TCT – Transaction Cost Theory; CDT – Cognitive Dissonance Theory; ECM - Expectation Confirmation Model; DTPB – Decomposed Theory of Planned Behaviour; UTAUT – Unified Theory of Acceptance and Use of Technology; TTPT – Trust Transfer Process Theory; MGB – Model of Goal-Directed Behaviour; GT – Gender Theory; NT – Niche Theory, UDT – Unplanned Decision Theory; SOR – Stimulus-Organism Response framework; ATT – Attitude; CNTT – Cognitive-Normative Tourism Typology; SERVQUAL – Service quality model, ADC - Ad Design Content; RQ – Relationship Quality; WPI – Website Performance Index; MRT – Media Richness Theory; SIM – Social Influence Model; VAM – Value-based Adoption Model

Appendix II.

Author/year	Year of coverage	No. of articles reviewed	ICT domain/ area	Purpose and key findings
Frew (2000)	1980–1999	665	ICT application in tourism services	The review covered both ICT-related and non-ICT-related articles in tourism studies. Papers were segmented by scale, scope and sources, with the internet seen as potentially redefining the tourism industry in the near future
Leung and Law (2007)	1985–2004	55	ICT application in tourism services	Publications on networking were greater in number, with 1995–2004 seeing the highest publication
Buhalis and Law (2008)	1987–2007	149	ICT application in tourism services	Review of ICT studies in tourism. It found that e-tourism is focused on consumer-centric technologies that allow organizations to interact with their customers
Law et al. (2009)	2005–2007	215	ICT application in tourism services	Papers were categorized by consumer, technological and supplier perspectives. ICT was considered to play a dominant role in customer satisfaction
Law et al. (2010)	1996–2009	75	Tourism website	The study reviewed publications on website evaluation. It noted that the counting method of evaluating websites dominated these studies
Leung et al. (2013)	2007–2011	44	Social Media in tourism	Social media was considered very useful in customer engagement and retention
Pesonen (2013)	2000–2011	188	ICT & Market Segmentation in tourism	Using ICT in tourism services
Law et al. (2014)	2009–2013	107	ICT application in tourism services	Customer, technological and supplier perspectives were also reviewed, with user-generated content being the leading research topic
Singh (2015)	1981–2012	182	ICT application in tourism services	The study reviewed past publications on ICT in the Indian tourism sector. It found that, while ICT-related tourism studies are increasing, however, Indian universities need to conduct more research
Lu and Stepchenkova (2015)	No start date – 2013	122	Social media in tourism	The study surveyed publications on user-generated content and how they are analyzed. It found that data collection and analysis were common, as various publications deployed self-developed applications (SDA).
Zeng and Gerritsen (2014)	2007–2013	279	Social media in tourism	Research on social media in tourism is still in its infancy
Leung et al. (2015)	1996–2013	331	Internet marketing in tourism	Internet marketing research in tourism has gone through introduction, growth and maturity stages

Appendix III.

S/N	Journal
Tourism-based journals	
1	Tourism Management
2	International Journal of Hospitality Management
3	International Journal of Tourism Research
4	Journal of Hospitality and Tourism Research
5	Journal of Travel & Tourism Marketing
6	Journal of Travel Research
7	Current Issues in Tourism
8	International Journal of Contemporary Hospitality Management
9	Journal of Air Transport Management
10	Asia Pacific Journal of Tourism Research
11	International Journal of Hospitality & Tourism Administration
12	Journal of Destination Marketing & Management
13	Journal of Hospitality Marketing & Management
14	Journal of Hospitality & Tourism Technology
15	Journal of Vacation Marketing
16	Leisure Sciences
Non-tourism based journals	
1	Telematics and Informatics
2	Internet Research
3	Online Information Review
4	The Service Industries Journal
5	Computers in Human Behaviour
6	Asia Pacific Journal of Marketing & Logistics
7	Behaviour & Information Technology
8	Industrial Management and Data Systems
9	Information Systems and E-Business Management
10	International Journal of Retail & Distribution Management
11	Journal of Business Research
12	Journal of Statistics & Management Systems
13	Journal of Systems and Information Technology
14	Technological Forecasting & Social Change

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II

WHAT DRIVES TRAVELERS' ADOPTION OF USER-GENERATED CONTENT? A LITERATURE REVIEW

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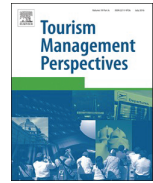
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Reviews in tourism

What drives travelers' adoption of user-generated content? A literature review

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A B S T R A C T

User-generated content (UGC) has become an important part of travel planning, as travelers evaluate travel products based on past reviews. However, different factors account for why tourists utilize UGC. The aim of this study is to review extant studies on UGC to identify the antecedents of UGC utilization for travel planning and the theories, models, and frameworks used in these studies. A total of 54 studies from 2005 to 2016 were found. This study found that UGC adoption is determined by attributes relating to the user, the source, the content, and response variables. It also found distinct and heterogeneous theories and frameworks mainly drawn from the information systems, socio-psychology, and management disciplines. Among the antecedents, the average path coefficients of the extracted relationships show that trust predicted attitude more than the other variables. Implications and future research directions are provided.

1. Introduction

Recently, there has been broad interest in social media as an important platform for disseminating information on products and services (Lu & Stepchenkova, 2015; Yang, 2017). Marketers use social media platforms to share information and attract traffic to their offerings (Aluri, Slevitch, & Larzelere, 2015; Culnan, McHugh, & Zubillaga, 2010; Sigala, 2011). Social media platforms have also become equally powerful tools for consumers to use to spread information via word of mouth (WOM). In the tourism and hospitality services industries, user-generated content (UGC) has become an effective tool tourists use to gather information to make travel decisions (Ukpabi & Karjaluoto, 2017a). Tsao, Hsieh, Shih, and Lin (2015) found that approximately 80% of travelers claim to read reviews about a hotel before embarking on a trip, and 53% say that they will not book a hotel that has no reviews. By sharing travel experiences through text, pictures, and videos, users enhance the free information provided for potential travelers regarding new markets, new topics, and sensitive issues (Tsao et al., 2015). The importance of UGC in tourism and hospitality services is underscored by the following considerations: First, tourism is a hedonic experience; therefore, consumers want to make the best travel decisions in order to make the most of the experience, and they seek to do so by reading reviews and comments from fellow consumers (Rageh, Melewar, & Woodside, 2013). Second, tourism cannot be experienced before consumption; thus, consumers rely on the knowledge and experiences of others (Zhang, Ye, Law, & Li, 2010). Finally, reviews from

fellow consumers are deemed honest and trustworthy, so consumers rely on them as a dependable source of information for their travel decisions (Cox, Burgess, Sellitto, & Buultjens, 2009; Ukpabi & Karjaluoto, 2017b).

Some studies have reviewed existing research on social media in the tourism industry. One of the earliest reviews, by Leung, Law, Hoof, and Buhalis (2013), used content analysis to evaluate studies from 2007 to 2011 and identified two major research streams: consumer-focused and supplier-based. Consumer-focused studies primarily highlighted social media as cardinal platforms for the tourist's trip planning phase, as they provide the traveler with a huge amount of varied information relevant to the travel decision. Interestingly, however, they noted that the role of social media in evaluating alternatives or influencing purchases is rarely studied.

As expected, supplier-based studies focused on social media as a marketing, promotion, and research platform. While corroborating the findings of Leung et al. (2013) on the use of social media as an information source during trip planning by consumers and as a marketing tool by suppliers, Zeng and Gerritsen (2014) nevertheless contended that studies relating to social media are still in their infancy, considering the wide-ranging nature of the tourism industry. Thus, while they noted that extant studies had discussed UGC from the perspectives of the consumer, they called for future studies examining the value of UGC as a strategic tool for tourism enterprises. Finally, Lu and Stepchenkova (2015) analyzed extant studies on UGC in tourism with an emphasis on the methodological approaches and software used.

They found that the majority of the studies did not report the theoretical perspectives underpinning the analyses. Additionally, the majority of the studies utilized manual data collection, and in specific instances in which software programs were used, they were self-developed applications such as spiders, crawlers, worms, or robots.

These reviews represent comprehensive attempts to understand the methods used in these studies. However, a review of UGC adoption in travel planning is still lacking, despite the specific call by Ayeh, Au, and Law (2013a) for future studies exploring broader factors influencing UGC adoption in travel planning. Therefore, this study has been conducted to fill this gap in the literature. It aims to understand the factors that influence the adoption of UGC in travel planning through a review of existing studies. Specifically, the study objectives include (1) identifying the theories, models, and frameworks used in these studies and methodological approaches; (2) identifying the geographic coverage of the studies; (3) identifying the antecedents of UGC adoption in travel planning; and (4) analyzing the strengths of these antecedents in predicting the adoption of UGC in travel planning.

Against this backdrop, this study makes three key contributions to the literature. First, in line with the work of Okoli and Schabram (2010), this study will provide a solid theoretical background for subsequent research by synthesizing theories from the reviewed studies. Additionally, in line with Webster and Watson's (2002) concept-driven review methodology, this systematic review also provides the different concepts and contexts used in the reviewed studies. This will serve as a vital material for subsequent research in the field. Second, by extracting the coefficients of tested path relationships from the reviewed studies (see Appendix 1), this study provides a ready source for scholars wishing to undertake research in UGC, especially a meta-analysis of UGC in tourism. Third, the findings of this study will clarify and harmonize previous findings. For instance, while Ayeh (2012) found that perceived ease of use (PEOU) is a strong determinant of attitude and intention to use consumer-generated media, Lee, Xiong, and Hu (2012) found that PEOU had no effect on attitudes towards using Facebook to attend a festival. When such contradictions exist, a review that clarifies the findings is of immense value to future research in this field. Finally, the framework developed based on the reviewed studies will enhance understanding of the factors influencing UGC adoption during travel information searches.

The remainder of the study is organized as follows: Section 2 provides the background information, Section 3 describes the research methods, Section 4 presents the results, and Section 5 provides the discussion, contributions, limitations, and future research directions. In this study, adoption refers to the intention to use and use of UGC in travel information searches.

2. Background information

Traditionally, consumers have been perceived as passive recipients of marketing messages, thus, the mono-directional communication pattern rendered consumers powerless, as they only received information deemed necessary by marketers (Bacile, Ye, & Swilley, 2014). However, with WOM, consumers have been able to influence not only fellow consumers but also firms' marketing and communication programs (Groeger & Buttle, 2014). Clearly, a satisfied consumer is likely to recommend a product or service to another consumer (Chiu, Wang, Fang, & Huang, 2014). The emergence of information and communications technology (ICT) and subsequent expansion into Web 2.0 radically changed how consumers communicate (Ukpabi & Karjaluoto, 2017a), and electronic word-of-mouth (eWOM) became a new vehicle for product and service recommendations among consumers (Cheung & Thadani, 2012). In order to get favorable eWOM recommendations, marketers turned to product and service quality improvement (Sigala, 2009; Sigala, 2011).

UGC enables other consumers to read, learn about, and share in the experiences of others (Chiu et al., 2014). The terms UGC and consumer-generated media (CGM) have been used interchangeably in the literature (Ayeh, Au, & Law, 2013b). CGM is defined as "media impressions created by consumers, typically informed by relevant experience and archived or shared online for easy access by other impressionable consumers" (Gretzel, Kang, & Lee, 2008, p. 100). In the tourism and hospitality industries, consumers express their satisfaction or dissatisfaction with a product or service through UGC. Social media offers opportunities for people to socialize and form communities of interest by creating and sharing content (Chung & Koo, 2015). Consumers use UGC for a variety of reasons, such as evaluating service quality and price (Liu & Lee, 2016) and identifying the best attractions, food, and destinations (Lee et al., 2012). Others search for social acceptance (Khan & Khan, 2015), enjoyment (Ayeh et al., 2013b), a communal feeling (Ku, 2011), and involvement (Sotiriadis & Zyl, 2013).

When trip planning, consumers search for information from both marketers and fellow consumers. However, they rely more on UGC because they expect it to be sincere and honest and to convey the creators' real experiences (Wang, 2012). Tourists perceive UGC to be more influential because it reflects the performance of typical tourism products, thus making it more persuasive than marketer-generated content (Sparks & Browning, 2011). However, the authenticity of UGC has recently come under close scrutiny (Ayeh et al., 2013a). Some consumers may post reviews as a form of revenge (Sparks & Browning, 2011), and some of these are legally defamatory (Ayeh et al., 2013a). Still, many other consumers post reviews as a form of altruism (Wang, 2015a, 2015b), and these have helped others in pre-trip planning decisions. Overall, UGC is growing in popularity because online third-party advice has proven to be a very reliable source of information for travelers (Tsao et al., 2015). Additionally, consumers' preferences for independent discussion boards, such as TripAdvisor and Lonely Planet, have allowed these sites to remain popular among travelers.

Focusing on these limited platforms through which consumers can obtain information from fellow consumers on tourism and hospitality services, early streams of research highlighted flow and enjoyment in online community membership (Lin, 2007; Wu & Chang, 2005). As members shared information on experiences with tourism products and services, negative WOM influenced how community members perceived these services (Cheng, Lam, & Hsu, 2006). Seeking advice from community members became an important part of travel planning (Casalo, Flavian, & Guinaliu, 2011). However, many factors influenced consumers' acceptance of such information as a determinant of choice of tourism and hospitality services. These factors include the individual consumer, the source of the information, the nature of the information, and how it was shared.

The demographic attributes of the consumer influences how he or she perceives UGC (Fan & Miao, 2012). For instance, younger travelers tend to evaluate reviews from many sources out of curiosity before reaching a decision, while adult travelers have limited search opportunities (Ayeh et al., 2013b). Additionally, those who derive high levels of enjoyment and involvement from online reviews are more prone to accept them than those who do not (Chung & Koo, 2015; Sotiriadis & Zyl, 2013). Acceptance of online reviews as an important element of travel planning is also predicated on the source of the information. In particular, source credibility and expertise (Sotiriadis & Zyl, 2013) are important features of the believability of such reviews. Finally, the nature of the information and how it is shared also determine acceptance. Sparks and Browning (2011) found that consumers are particularly influenced by negative reviews when such information is negatively valenced. Chen, Shang, and Li (2014) also posited that consumers' perceptions of their enjoyment of travel blogs and the blogs' novelty, reliability, understandability, and interestingness influence consumers' intentions to visit a destination.

3. Research methods

3.1. Literature search

Drawing mainly from the methodology of Shaikh and Karjaluoto (2015) and the review approaches of Perea, Monsuwé, Dellaert, and De Ruyter (2004) and Cheung and Thadani (2012), this study drew up a plan based on the recommendations of previous reviewers. First, we identified the keywords that would form the basis of the literature search and extraction. Second, we established the literature inclusion criteria. Based on these keywords and inclusion criteria, we used the following search terms, among others: "social media adoption in tourism", "e-WOM in tourism and travel", "Web 2.0 adoption in tourism and travel", "user-generated content in tourism and travel", "social networking in tourism and travel", "blogs in tourism and travel", "online communities in tourism and travel", and "virtual communities in tourism and travel". As recommended by Shaikh and Karjaluoto (2015), we conducted horizontal and vertical searches. For horizontal searches, we used Google Scholar, a key reference database that hosts a broad range of academic materials and provides easy access to relevant studies (Zeng & Gerritsen, 2014). To ensure that we captured as many relevant studies as possible, we also conducted vertical searches of specific databases, including Science Direct, SAGE, Wiley, Springer, Emerald, JSTOR, IEEE, Taylor & Francis, and Inderscience. Furthermore, as social media is a rapidly growing technological phenomenon with conferences specifically dedicated to exploring its different perspectives (Paquet-Clouston, Bilodeau, & Décary-Hétu, 2017), we expanded our search to include conference proceedings.

3.2. Literature selection

In order to meet our objectives, we set both inclusion and exclusion criteria. Our inclusion criteria required that the study be consumer-based and empirical, have a defined sample size, and include measurements for independent and dependent variables. Additionally, we decided that studies to be included must contain the results of the data analysis and a solid discussion section and offer both practical and managerial implications. Our exclusion criteria eliminated firm-based studies in addition to conceptual and theoretical studies. We adopted the approach of Lu and Stepchenkova (2015) by speed-reading the studies and identifying those that met the above criteria. Guided by Tranfield, Denyer, and Smart (2003), who posited that inclusion is subjective based on the researcher's interests and objectives, we identified a total of 54 studies published from 2005 to 2016 for inclusion: 51 articles from 28 journals, 1 conference paper, and 2 PhD dissertations.

4. Results

In the following sections, we present the results of our findings. In line with our objectives, the first part of the results section describes the identified theories, models, and frameworks. This study also analyzed the composition of the journals publishing the studies, the geographical spread of the studies, and the methodological approaches used. Furthermore, the study provides solid discussion of the antecedents of UGC adoption for travel planning and of the critical characteristics of the source, content, and the user in determining such adoption. A conceptual framework is then provided to encapsulate how the different elements fit together. The results section concludes with a discussion and computation of the strengths of the major variables in predicting UGC adoption using the path coefficients identified from the selected studies.

4.1. Statistics

The 54 reviewed studies, presented in Appendix 1, used 22 distinct and heterogeneous theories, frameworks, and models. The technology acceptance model (TAM) was used in 14 (26%) studies. The theory of planned behavior was used in five (9%) studies, the elaboration likelihood model (ELM) in three (5%) studies, and the theory of reasoned action in three (5%) studies. Only one (1.8%) study used the unified theory of acceptance and use of technology. Because UGC draws from the traditional eWOM literature, most of the studies borrowed constructs from other models and used eWOM as a framework (e.g. Wang, 2012; Zhao, Wang, Guo, & Law, 2015).

Of the 28 journals in which the reviewed studies were found, 32% (9 out of 28) were tourism-based journals, while 68% (19 out of 28) were non-tourism-based journals (Appendix 2). This result further confirms that of an earlier study, which found that technology-based tourism-related studies are mostly published in non-tourism-based journals rather than traditional tourism journals (Cheng, 2016). Of the 54 studies, 35 (64.8%) were conducted between 2013 and 2015. No study was published in 2008 or 2009. The geographic distribution of the studies was as follows: 1 (1.8%) study in Africa, 28 (51.8%) in Asia, 2 (3.7%) in Australia/Oceania, 13 (24%) in Europe, and 11 (20%) in North America. Most studies were conducted in the following countries: Taiwan with 11 (20%), the United States with 10 (18%), China with six (11%), and Spain with six (11%). In terms of data collection, as stated earlier, all of the studies were quantitative; however, two (3.7%) studies utilized an experimental approach, and one (1.8%) used panel data. Over half (63.6%) used online (web-based, email) survey methods to obtain responses, while 17 (31.5%) used field-based surveys. One study combined online and field-based methods of data collection (Zhao et al., 2015). As indicated in Appendix 1, the majority of the studies adopted a structural equation modeling (SEM) approach. The application and popularity of SEM in social sciences is anchored in its versatility in handling multivariate statistical techniques, thus providing scholars a comprehensive tool for performing factor analysis and testing structural relationships (Xiong, Skitmore, & Xia, 2015). Xiong et al. (2015) contended that the use of SEM in an emerging research stream is vital for theory development; the addition of moderators and mediators often provides clues for solving complex and contentious theoretical issues. Building from the above arguments, we noted variations in the use of moderators and mediators. While some studies used and applied them in the earliest UGC research, others adopted and tested variables using direct relationships instead (Cheng et al., 2006; Lin, 2007; Wu & Chang, 2005). Interestingly however, the use of moderators and mediators has become popular again in recent studies (e.g. Chung & Koo, 2015; Liu & Lee, 2016).

4.2. Basic determinants of consumers' attitudes and intentions to adopt UGC for travel planning

This review uncovers the major antecedents of UGC adoption in tourism and travel. The various dependent variable used relate to attitude, intention, and usage. Variables such as intention, attitude, perceived usefulness, and ease of use have received considerable attention in the technology adoption literature (Lee et al., 2012). Attitude has been found to positively influence intention and usage regarding UGC in a travel planning context (Casaló, Flavian, & Guinaliu, 2010). However, findings conflict regarding whether perceived usefulness (PU) or perceived ease of use (PEOU) better predicts attitude and intention. According to Casaló et al. (2010), while both PU and PEOU exert positive effect on attitude, PEOU exerts a stronger effect. Additionally, with the integration of social identity, the study also found that belonging to a network has a positive effect on both attitude and subjective norm, implying that group members have positive influences on the utilization of UGC among network members. However, in a hybrid of three models used to test the role of blogs, Facebook, and TripAdvisor as UGC platforms, Muñoz-Leiva, Hernandez-Mendez, and Sanchez-Fernandez (2012) found that PU had a stronger effect on attitude across the three models. Similarly, though blogs have proven to be an important source of information for travelers, the relationship

between ease of use and intention was negative, implying that the fewer options available on blogs make them less attractive than Facebook and TripAdvisor, which contain a variety of information from other travelers.

Consumers' intention to use UGC for travel decisions hinges on functional, social, and hedonic benefits (Parra-Lopez, Bulchand-Gidumal, Gutierrez-Tano, & Diaz-Armas, 2011). Regarding functional benefits, consumers seek information critical to their choice of tourism products and services. In addition, consumers may also seek information on the availability of online travel communities. These communities are especially important when a particular community promotes the consumer's interests. In some cases, consumers seek the opinion of others to reduce the risks related to their travel decisions (e.g. assess the safety of the destination) or get lower prices (Goldsmith & Horowitz, 2006).

Cost considerations constitute an important element of travel decisions (Parra-Lopez et al., 2011). Consequently, consumers do a comparative assessment of tourism products and services based on others' opinions. Importantly, however, there are costs related to assessing UGC on social media as well. According to Parra-Lopez et al. (2011), such costs relate to effort, difficulty of usage, and loss of privacy. Effort costs include the personal effort, monetary costs, and time spent accessing travel-related information. Difficulty of usage costs arise if the process of accessing or contributing opinions is cumbersome. Finally, privacy costs involve the risk of revealing personal information on the social media platform. If these costs are high, the consumer will be deterred from using UGC. Parra-Lopez et al. (2011) found that though consumers may be aware that these costs exist, they do not constitute a hinderance to the use of social media for travel planning.

Furthermore, two key TAM constructs, PU and PEOU, also constitute determinants of functional benefits of using UGC for travel planning. According to Davis (1989), PU is defined as the individual's perception that using the technology will improve her or his performance. In the context of adoption of UGC for travel planning, PU relates to the individual's perception that using UGC will improve his or her chances of making the best travel decisions. Thus, Lin (2007) found that PU is a key determinant of the sustainability of virtual communities. Furthermore, Yang (2017) posited that the PU of a website has a significant effect on eWOM intentions, just as PU also significantly moderates the relationships between satisfaction/egoistic needs and eWOM intentions.

Consumers utilize various social media platforms for travel planning. Chung, Han, and Koo (2015) contended that PU and social relationships significantly influence travel information adoption, suggesting that the type of event and the social media platform determine the usefulness of the UGC. Their results indicate that travelers' emotional affections will be high on social media platforms with high social presence, meaning that the platform accommodates content such as pictures, video, and other graphical images that increase users' interactivity. These affections influence adoption. Thus members who are in the same network and are familiar with one another are more likely to follow the travel recommendations of members they are familiar with than those they are not. For platforms with low social presence, such as blogs, argument quality (the persuasive strength of content) is a vital element of adoption. The difference between blogs and Facebook or YouTube is that while the former should employ greater persuasion to convince readers, the latter will need to embed interactive content. Lee et al. (2012) echoed this finding, as they found that embedding captivating and interactive content pages such as videos and photographs on Facebook events significantly influences attendees' perceptions of usefulness, ease of use, and enjoyment. Thus, photographs and videos are critical to influencing travel information seekers' enjoyment and adoption of UGC. Interestingly, these antecedents have been applied in different contexts. Table 1 presents response and adoption antecedents, frequency (the number of times they appeared in the systematic review), and the different studies in which they were used.

Another TAM construct that has received much attention in the literature is PEOU. PEOU is defined as the individual's perception that using a new technology will be free of effort (Davis, 1989). In the context of this study, we define PEOU as the individual's perception that using UGC for travel planning will be free of effort. Perea et al. (2004, p. 108) contended that the relationship between PU and PEOU lies in the fact that while PU "referred to consumers' perception regarding the outcome of the online shopping experience, 'ease of use' refers to their perceptions regarding the process leading to the final online shopping outcome." In the context of our study, this means that PU shows how effective using UGC is in helping tourists reach a travel decision, while PEOU is how easy the tourist finds using UGC in travel planning to be. In the context of tourism and travel, the first study to apply the TAM model in virtual communities (Lin, 2007) found that PEOU is a key determinant of the sustainability of virtual communities. In a related study, Ayeh (2012) found PEOU to be a significant predictor of online travelers' perception of UGC usefulness. However, Lee et al. (2012) opined that PEOU had no effect on attitude towards using Facebook to attend a festival. This is particularly of interest because according to the TAM model, PEOU is especially influential in the early stages of user experience, but individuals grow in their ability to easily use specific systems with increasing direct contact (Davis, 1989).

In addition to PU and PEOU, other influences motivate consumers to adopt UGC. These factors, which either proceed from within the consumer (endogenous) or are external to the consumer (exogenous), have variously been found to affect the consumer's adoption of UGC in travel planning. This review uncovers various ways in which these factors have been integrated into original theories and models (see Appendix 1) to determine their impact on travel planning.

4.2.1. Source-based characteristics

Source-based antecedents, factors outside the consumer that relate to the origin of the information, play a role in the consumers' adoption of UGC in travel planning. Table 2 presents major source-based characteristics, their definitions, frequency (number of times used in the reviewed studies), and the studies that discussed them. In the context of tourism, these characteristics of the origin and the originators of the travel-related information posted online serve as information and guides for potential travelers.

Among these characteristics is source credibility. Chung et al. (2015) defined source credibility "as the extent to which an information source is perceived to be believable, competent, and trustworthy by the information recipient." The importance of source credibility in UGC adoption is underscored by the intangibility of tourism products and the inability of the consumer to experience the product or service before actual consumption. Thus, the origin and originator of the UGC are important signifiers of the believability of the content. Ayeh et al. (2013a) posited that expertise and trustworthiness comprise source credibility. Expertise "refers to the extent to which UGC contributors are perceived to be a source of valid assertions [truth]," while trustworthiness "describes the degree of confidence in the source's intent to communicate the assertions they consider most valid [true]" (p. 3). Chung et al. (2015) argued that the name of the author who wrote the message, the number of messages the author has posted, and the number of replies the content has generated accentuate expertise. Accordingly, source trustworthiness is underpinned by the degree of confidence the user has in the source, the website, and the information provided (Ayeh et al., 2013a, 2013b). In determining the influence of eWOM on tourists' intention to visit a destination, Wang (2015a, 2015b) found that source credibility positively affected tourists' recommendation intention but not their visit intention. Additionally, source credibility was not found to influence tourists' attitudes towards the destination, implying that while information sources only act as a catalyst, the actual choice is determined by the cognitive and evaluative attributes of the destination.

Members of a group who share similarities in age, gender,

Table 1
Response and adoption antecedents.

Construct	Definition	Frequency	Author(s)
Perceived usefulness	The extent to which a traveler believes UGC is useful during a travel information search	13	Casalo et al. (2011); Ayeh et al. (2013a, 2013b); Casaló et al. (2010); Zhao et al. (2015); Lin (2007); Chung et al. (2015); Muñoz-Leiva et al. (2012); Lee et al. (2012); Ayeh (2015); Pietro and Pantano (2013); Ayeh (2012); Yang (2017); Ting, Ting, and Hsiao (2014)
Perceived ease of use	The extent to which the traveler believes using UGC is free of effort	10	Ayeh et al. (2013b); Casaló et al. (2010); Lin (2007); Bilgihan, Barreda, Okumus, and Nusair (2016); Muñoz-Leiva et al. (2012); Lee et al. (2012); Ayeh (2015); Pietro and Pantano (2013); Ayeh (2012); Yang (2017)
Attitude	The extent to which the traveler feels the UGC is beneficial in travel information searches	17	Casaló et al. (2010); Ayeh et al. (2013b); Sparks, Perkins, and Buckley (2013); Ayeh et al. (2013a); Jalilvand and Samiei (2012); Hsiao, Lu, and Lan (2013); Casalo et al. (2011); Wang (2015a, 2015b); Zarrad and Debabi (2015); Jalilvand, Ebrahimi, and Samiei (2013); Muñoz-Leiva et al. (2012); Albarq (2014); Cheng et al. (2006); Lee et al. (2012); Ayeh (2015); Ayeh (2012); Ting et al. (2014)
Intention	The traveler's expressed desire to read UGC during a travel information search	All the studies except 6	Refer to Appendix 1

education, social status, profession, and geographical location will believe information emanating from within the group more than information from outside it (McPherson, Smith-Lovin, & Cook, 2001). Perceptual homophily, the extent to which individuals are similar in some attributes, plays a very important role in the evaluation of content among members of a community. In the context of tourism and travel planning, content from similar users is more believable than from dissimilar users. Credibility issues related to deceptive postings on some travel review websites has generated controversy. For instance, TripAdvisor has faced sanctions in the UK due to postings on its websites (Ayeh et al., 2013a). Thus, consumers have elevated their evaluative criteria of UGC. In searching for travel information, consumers from communities usually accorded the content credibility because the members saw themselves as belonging to the same family.

4.2.2. Content-based characteristics

In addition to source characteristics, the nature of the information plays a role in its adoption. Different authors have used various ways of describing the nature and characteristics of travel information that stand out to travelers seeking information (see Table 3). Prominent among them is content novelty, or the newness of the travel information (Chen et al., 2014). It plays an important role in the travel information search process because it distinguishes between what the user is familiar with and what is new and interesting, stimulating interest. Furthermore, the direction of the valence of UGC (either positive or negative) also impacts its adoption. Generally, UGC is posted to express either positive feelings related to a product or service encounter or frustration and complaint. In the context of hotel bookings, Sparks and Browning (2011) found that exposure to positively valenced reviews increases booking intention and trust. Additionally, Mauri and Minazzi (2013) argued that positive online comments increase booking intention but also increase consumers' expectations. Thus, hotel managers should continuously improve their services to match guests' expectations.

The attractiveness of UGC is also an important factor in its utilization. Aesthetics, or the balance, emotional appeal, or beauty of the

content as expressed in colors, font type, music, or animation, can arouse interest in the content (Cyr, Head, & Ivanov, 2006). In the context of travel information searches, blogs and video content are particularly important, as they present the opportunity to creatively add fun and enjoyment to the presentation. Hsiao et al. (2013) found that the aesthetics of storytelling travel blogs effectively increase readers' intention and positive feelings and attitudes about the destination. Moreover, argument quality, referred to "as the persuasive strength of arguments embedded in an informational message" (Bhattacherjee & Sanford, 2006, p. 811), has been studied extensively in eWOM adoption. In the context of travel information, a communication that has higher argument quality is more likely to increase adoption than one with low argument quality. Thus, helpful, valuable, and persuasive content positively influences readers' interest in and intention to visit a destination (Wang, 2015a, 2015b). However, Chung et al. (2015) argued that the utilization of UGC based on argument quality is moderated by social presence. Thus, argument quality significantly affected perceived usefulness when there was low social presence but had less effect in situations with high social presence. Finally, in examining the factors that influence travelers' utilization of information from online reviews, Filieri and McLeay (2013) applied the ELM to understand information quality through central and peripheral routes. Central routes—information timeliness, information understandability, information relevance, information accuracy, value-added information, and information completeness—and peripheral routes—information quality and product ranking—both predicted tourists' destination choices.

4.2.3. User-based characteristics

The consumer's characteristics, such as age, gender, income, and literacy level, influence adoption of UGC. Young and middle-aged adults are predominant users of social media for travel planning (Filieri & McLeay, 2013) because this age group, characterized by inquisitiveness and curiosity, explores different social media platforms to make friends and stay informed about trending news in politics, economy, entertainment, and sports. Additionally, many among this

Table 2
Source-based characteristics.

Construct	Definition	Frequency	Author(s)
Source credibility	The extent to which a traveler perceives a UGC source to be believable, competent, and trustworthy	5	Filieri, Alguezaui, and McLeay (2015); Ayeh et al. (2013a); Wang, 2015a, (2015b); Chung et al. (2015); Ayeh (2015)
Expertise	The extent to which UGC contributors are perceived to be a source of valid assertions	5	Ayeh et al. (2013a); Zhao et al. (2015); Sotiriadis and Zyl (2013); Ayeh (2015); Ayeh (2012)
Trustworthy	The extent to which the source is perceived as making valid assertions	2	Ayeh et al. (2013a); Sparks et al. (2013)
Homophily	The extent to which the traveler perceives UGC contributors to be similar in some attributes	2	Ayeh (2012); Ayeh et al. (2013a)

Table 3
Content-based characteristics.

Construct	Definition	Frequency	Author(s)
Aesthetics	The extent to which the traveler perceives the content to be beautiful and emotionally appealing	1	Hsiao et al. (2013)
Valence of reviews	The extent to which the traveler perceives UGC as positive or negative	5	Zhao et al. (2015); Book, Tanford, Montgomery, and Love (2015); Tsao et al. (2015); Sparks and Browning (2011); Lee et al. (2012)
Information accuracy	The extent to which the traveler perceives UGC to be correct	1	Filieri and McLeay (2013)
Argument quality	The persuasive strength of arguments embedded in the UGC	3	Chung et al. (2015); Wang (2015a, 2015b); Chong and Ngai (2013)
Information relevance	The extent to which the traveler perceives UGC to be helpful and applicable	1	Filieri and McLeay (2013)
Information reliability	The degree to which the traveler perceives UGC to be believable	2	Chen et al. (2014); Chung and Koo (2015)

Table 4
User-based characteristics.

Construct	Definition	Frequency	Author(s)
Involvement	The traveler's perception of the relevance of UGC to the travel information search	3	Huang, Chou, and Lin (2010); Leung and Bai (2013); Sotiriadis and Zyl (2013)
Perceived enjoyment	The extent to which the traveler perceives UGC to be fun and enjoyable	11	Lee et al. (2012); Aluri et al. (2015); Ayeh et al. (2013b); Ku (2011); Chen et al. (2014); Chung and Koo (2015); Kang and Schuett (2013); Pietro and Pantano (2013); Ayeh (2012); Wang (2015a, 2015b); Ting et al. (2014)
Experience	The traveler's knowledge and skills that enhance the use of UGC in travel information searches	3	Ku (2011); Kang and Schuett (2013); Filieri et al. (2015)
Perceived benefit	The extent of the gains the traveler derives from using UGC in travel information searches	3	Parra-Lopez et al. (2011); Chung and Koo (2015); Oz (2015)

age group perceive exploring social media platforms as fun. Females use the internet and social media more than males (Akman & Mishra, 2010), perhaps because females are more socially cohesive than males and social media provides a platform for fulfilling the natural need to socialize with others. This also affects travel planning, as females' already-developed social media usage impacts their adoption of UGC. Consumers' income is also an important determinant of engagement in different activities. Availability of disposable income highly predisposes the consumer to purchase items such as computer gadgets, which in turn allow them to explore social media platforms. Finally, literacy levels play a major role in UGC utilization in travel planning. An individual's educational level has been seen to correlate with his or her income, thereby impacting his or her use of computer devices and allowing the exploration of social media with such devices to become an important element of the travel decision. Table 4 presents user-based characteristics, their definitions, the number of times they appeared in the reviewed studies (frequency), and the studies in which they were used.

Literature on involvement abounds in the fields of sociology, psychology, and consumer behavior (Leung & Bai, 2013). Defined as "a person's perceived relevance of the object based on inherent needs, values, and interests" (Zaichkowsky, 1985, p. 342), involvement has been found to have a significant influence on the consumer's decision-making process. In the tourism context, involvement is an important determinant of purchase since tourism services are high-risk and cannot be evaluated before consumption (Sotiriadis & Zyl, 2013). Thus, in travel planning, consumers explore different sources of information, and a highly involved consumer explores travel information through many social media platforms. Huang et al. (2010) found that personal involvement on travel blogs is a determinant of consumers' response to advertising.

Another intrinsic motivation that has received great attention is perceived enjoyment. Studies that have incorporated perceived enjoyment into the TAM model have observed varying results, depending on the context. For instance, in the utilitarian context, Venkatesh (2000) conducted experiments in which employees were introduced to an online help desk system, multimedia system, and PC environment (Windows 95) for a payroll system. The study found that enjoyment was a weaker predictor of intention and use of the new information system. In the context of tourism, using social media is perceived as a hedonic activity; however, using UGC for travel information searches is perceived as a utilitarian activity (Ayeh et al., 2013b). Studies have found perceived enjoyment to be a strong determinant of attitude and intention in travel information search (Aluri et al., 2015; Pietro & Pantano, 2013).

Consumer's adoption of UGC for travel planning has also been attributed to experience and knowledge (Chong & Ngai, 2013). The internet provides consumers with unlimited access to products and services without limitations imposed by geographic locations. Thus, consumers experienced and knowledgeable in computer systems and the internet will have a strong motivation to use UGC for travel information searches (Chong & Ngai, 2013). In a study of UK and Northern Ireland tourists mainly consisting of 18–35 year olds, Filieri et al. (2015) suggested that user experience (knowledge and skill) influences consumer trust in UGC.

The benefit sought also determines consumers' intent to use and use of UGC in travel planning. In using UGC, consumers seek different types of benefits. According to Parra-Lopez et al. (2011), such benefits can be functional, social, psychological, or hedonic. Functional benefits include finding the best destinations, low costs, and efficient services. Thus, consumers seeking these benefits consider using UGC to obtain relevant information. In terms of social benefits, social media provides a platform for consumers to connect and share information on common interests. The social benefits derived from such platforms include
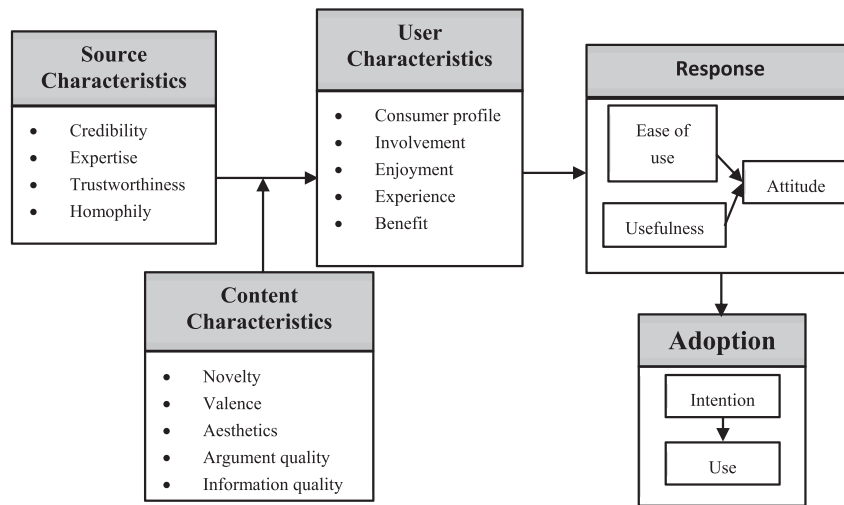
Fig. 1. Determinants of UGC utilization for travel planning.

bonding, engagement, emotional support, companionship, and encouragement (Chung et al., 2015). Finally, different scholars have found that consumers' interest in and intent to use social media derives from the fun, pleasure, enjoyment, and playfulness they obtain from using it (Perea et al., 2004). Thus, in the context of travel planning, watching videos and seeing photographs of pleasing scenery in various destinations can stimulate interest in the use of UGC.

The fundamental assumption of WOM is that WOM episodes involve two parties: the sender and the receiver (Cheung & Thadani, 2012). Our framework on UGC adoption (Fig. 1) is based on the classifications of the reviewed literature, which in turn are based on the premise that UGC adoption depends on three factors: source-based characteristics, user-based characteristics, and content-based characteristics. Source-based characteristics relate to the sender, while user-based characteristics relate to the receiver. Content-based characteristics are elements of the content.

4.3. Strengths of the antecedents in predicting adoption

An analysis of the average path coefficients' effect sizes has been conducted to explain the strengths of antecedents in predicting dependent variables (Shaikh & Karjaluoto, 2015). Shaikh and Karjaluoto analyzed the strengths of the most frequently used antecedents to explain attitude, intention to use, and usage in mobile banking. Accordingly, we analyzed the average path coefficients of the effect sizes of the R-values of the most frequently used relationships as extracted (see Appendix 1); relationships used in six or more studies were included. The results, as shown in Table 5, indicate that trust has the strongest effect on attitude, followed by perceived ease of use. Additionally, attitude has the strongest effect on intentions, which is understandable because attitude has been found to be the most commonly used

Table 5
The average path coefficients' effect sizes of major antecedents.

Constructs	Attitude	Intention
Attitude	–	0.511
Perceived usefulness	0.180	0.432
Trust	0.362	0.352
Perceived ease of use	0.264	0.347
Subjective norm/social influence	–	0.343
Enjoyment	–	0.335

antecedent. Interestingly, perceived usefulness also has a stronger influence on intentions than perceived ease of use.

5. Discussion

The aim of our study was to provide a review of the literature on what drives travelers' use of UGC during travel information searches. Through rigorous search criteria, we identified 54 articles from both tourism- and non-tourism-based journals. We also identified 22 heterogeneous and distinct theories, models, and frameworks with different antecedents. We also analyzed the articles based on the methodological approaches used and their geographical spread. Furthermore, critical determinants and elements of UGC adoption relating to the source, content and receiver characteristics were identified. Finally, we provided a framework to demonstrate how these elements fit together and analyzed the average path coefficients of the effect sizes to determinant the strengths of the variables in predicting adoption.

Consumers perceive the experiences shared by fellow tourists to be sincere, believable, and trustworthy (Sparks et al., 2013). Tourism and travel information can be shared among members of the same social network, among those who do not belong to the same networks, and even among those who are geographically distant (Muñoz-Leiva et al., 2012). When content is shared by those who do not belong to the same network, source credibility becomes an important determinant of the believability of UGC. Source credibility includes trustworthiness and expertise (Ayeh et al., 2013a). Trustworthiness implies confidence in the source and the source's reliability, while expertise implies that the source has knowledge about the destination. Tourists seeking travel information will regard the UGC of those who have similar interests to be more trustworthy and credible.

Travel information differs based on valence (negatively or positively framed content). Reading positive reviews can have a positive effect on travelers' inclination to visit the destination (Tsao et al., 2015). However, some studies have generated conflicting results regarding the influence of positively and negatively framed content on travelers' intentions (Sparks & Browning, 2011; Zhao et al., 2015). When tourists seek travel information, the novelty and understandability elements of UGC positively influence booking intentions (Chen et al., 2014). In a virtual world, information quality, which includes accuracy, timeliness, completeness, and relevance, seems to influence trust and booking intentions (Filieri and McLeay, 2014). In traditional social media contexts, intentions to use social media are directly influenced by perceived benefits (functional, psychological, hedonic, and social) (Parra-Lopez

et al., 2011). In the context of tourism and travel, benefit-seeking behaviors related to pursuing the best destinations, attractions, hotels, transportation, food, beverages, and prices explain the use of UGC (Oz, 2015). Most of the reviewed studies found that UGC positively influences tourists' intentions to book a hotel and visit a destination. Some studies also revealed that social influences, involvement, enjoyment, and experience are important determinants of UGC adoption for travel and tourism (Chung & Koo, 2015).

5.1. Contributions of the study

5.1.1. Implications for research

First, our study found that UGC adoption for travel planning depends on three factors: source-based characteristics, user-based characteristics, and content-based characteristics. The identification of trust as having the strongest effect on attitude is in line with earlier studies that identified trust as an important criterion for using UGC because those who use social media are unknown to one another (Ayeh et al., 2013a, 2013b; Parra-Lopez et al., 2011). Second, geographical analyses of previous work on information and communication technology found that the majority of the studies were carried out in North America, Europe, East Asian regions (China, South Korea, Hong Kong and Taiwan), and the Middle East, with no studies in South Asia or Africa (Shaikh & Karjaluoto, 2015). In this study however, no study was conducted in the South Asian regions (comprising India, Pakistan, Bangladesh, Nepal and Bhutan) and only one study in Africa.

Third, of the 22 different theories, frameworks, and models our systematic review uncovered (see Appendix 1), the TAM was the most used (26%). Though the TAM was originally developed at the organizational level, its use and application at the consumer level are well-noted in literature (Muñoz-Leiva et al., 2012). However, the identified weaknesses of the TAM in predicting technology adoption at the individual level (Chau & Hu, 2001) required some studies to combine the theory with other models (e.g. Casalo et al., 2011) and to extend the theory by adding other constructs (Ayeh et al., 2013b). Similarly, in a review of literature on the drivers of consumers to shop online, Perea et al. (2004) extensively highlighted the TAM and its constructs in consumers' online shopping.

Fourth, the identified theories and the antecedents with their path coefficients from different studies (see Appendix 1) provide a solid theoretical background for subsequent research (Okoli & Schabram, 2010); thus, this work provides a ready source for scholars wishing to undertake research, especially a meta-analysis of UGC in tourism. Fifth, the contributions of scholars from the information systems field are growing, and not only within the domain of management science, as evidenced by the higher inclusion of research on social media in tourism and travel in non-tourism based journals.

5.1.2. Implications for practice

Our systematic review generates some implications for practice. First, the pervasiveness of ICT has transformed consumers from passive recipients of marketing messages to active participants in brand building and product and service co-creation. Social media and, by extension, UCG provide a platform for this. Interestingly, availability of free access to the internet is a significant contributor to consumers' satisfaction with a given tourism service, so managers should ensure that consumers have unhindered and unlimited access to the internet. In a study evaluating customers' ratings of hotels, Bulchand-Gidumal, Melián-González, and Lopez-Valcarcel (2013) found that hotels offering

free wifi received higher scores and patronage than others. To accentuate the importance of internet to consumers, airlines have started providing internet access to airborne passengers (Medina, Hoffmann, Rossetto, & Rokitansky, 2010), which was previously unavailable.

Second, customers' evaluations of satisfaction/dissatisfaction arise from two pillars: core services and relational factors. Core services include basic expectations related to room size and cleanliness, toilet facilities, meal types and availability, lighting, furnishings, and fittings. Relational factors primarily relate to customer service performance. Excellent delivery of these services typically generates positive UGC, and this raises the expectations of prospective visitors. Therefore, managers should continue to improve their services in order to continuously match visitors' expectations.

Third, while information provided by fellow consumers is important, the actual decision to visit still resides with the consumers, who base their choices on the cognitive and evaluative attributes of the destination. Thus, managers should not completely give up based on reviews and comments about their services. Consumers still take additional steps to evaluate services and products and do not necessarily make decisions based on reviews.

Finally, our study also found that the utilization of social networks is very germane for festival and event managers. Importantly, such forums provide the opportunity for previous attendees to share their experiences, questions asked, and feedback obtained. While traditional web pages may contain very limited information about such activities, Lee et al. (2012) found that Facebook is an influencing medium that not only provides information but also allows managers to have real-time chat sessions with consumers. Event organizers must therefore be sure to provide exciting experiences that will generated positive UGC. The sharing of such experiences on Facebook pages will influence those who read such content to visit.

5.2. Limitations and future research directions

One of the limitations of the study is that it was based on quantitative studies; therefore, it did not incorporate qualitative research. Second, the review was based on UGC and did not incorporate marketer-generated media. Marketer-generated media could offer more insights into the utilization of online content for trip planning. Third, the review only covered the period from 2005 to 2016. Relevant studies that were published before this period could impact the review.

Among the emerging markets, only China and Taiwan were substantially reflected, with one study in Africa. Thus, we recommend studies be conducted in important emerging markets such as India and countries in Africa and South America that have witnessed rapid rates of internet subscription and social media adoption. Additionally, Facebook and Twitter were the most commonly studied social media platforms. Platforms such as YouTube, Delicious, Digg, and Lonely Planet are also very important for travel and tourism; further research should seek to incorporate these networks into the UGC literature. Importantly, all the reviewed studies merely listed the sample profile, none took a deeper step towards weighting the sample characteristics in UGC adoption in travel planning. This is an interesting area of study, especially in the emerging markets.

Acknowledgement

Appendix 1. Analyses of reviewed studies

S/N	Author/year	Purpose/country	Methodology			Independent variable(s)	Dependent variable(s)	Theory	Path coefficients (β)	Findings
			Mode of data collection	Sample	Data analysis					
1	Ting et al. (2014)	Factors influencing travellers to share their experiences through blogs - Taiwan	Online	232, Taiwanese travellers who share blogs	SEM	Perceived usefulness, Perceived ease of use, Perceived enjoyment, Reputation, Altruism, Trust, Subjective norms, Community group identification, Communication, Sharing, Attitude	Intention	TRA, TPB, TAM	PU → ATT (.32); REP→ ATT (.36); ALT → ATT (.27); TRU → ATT (.34), SI → INT (.25); ATT → INT (.67)	Perceived usefulness, reputation, altruism and trust influenced the attitudes towards sharing blogs.
2	Zhao et al. (2015)	To determine factors influence the choice of online reviews for travel - China	Facial and online survey	269 respondents	Regression analysis	Reviewer Expertise, Usefulness, Timeliness, Volume, Comprehensiveness, Positive online reviews, Negative online reviews,	Booking intentions	eWOM	PU → INT (.197); RE → INT (.275); NOR → INT (.305); TOR → INT (.230); VOR → INT (.300); POR → INT (.112); COR → INT (.295)	The impact of online reviews in influencing travel decision depends on six features: reviewer expertise, usefulness, timeliness, comprehensiveness, volume and valence.
3	Herrero, Martin, and Harnandez (2015)	To investigate how online search behavior of users of is influenced by the opinions of other people in the context of Web 2.0 applications - Spain	Face-to-Face	830 Spanish who had used Web 2.0 applications in information seeking for travel purposes	SEM	Perceived influence, Information value, Credibility, Similarity	Usage	E-WOM	NA	The influence of the user-generated on Web 2.0 applications is determined by the value of the information, the credibility of the sources and the degree of similarity between the user and the creators of the content.

4	Ladhari and Michaud (2015)	The investigate the influence of comments generated on the hotel booking intentions - Canada	Two experiments: one involving a 2 star hotel and another involving 4 star hotels.	Negative reviews has Group 1(200) and Group 3 (200) respondents. Positive reviews has Group 2 (200) and Group 4 (200). Mainly students	ANOVA	Attitude, Trust, Website quality	Intention	E-WOM	NA		Hotel booking intention is most influenced by e-WOM generated about the hotel. Trust is also affected by the e-WOM about the hotel
5	Book et al. (2015)	To evaluate how social influence on the platform of traveler reviews and price influence purchase decision and post purchase dissonance - USA	Facial (on-the-spot) data collection	Data was collected from 327 students	MANCOVA	Customer reviews, Price, Dissonance,	Intention	CDT	NA		While social influence had strong influence on resort evaluations, reviews that were non-anonymous reviews increased dissonance as price was not seen as a strong factor
6	Sotiriadis and Zyl (2013)	Using the conceptual model of E-WOM, the study investigates the factors influencing the use of Twitter by tourists - USA	Online	500, Greeks & others	Regression analysis	Source reliability, Degree of involvement, Communication frequency, Source expertise & Knowledge	Usage	E-WOM	NA		Reliability of Twitter followers/users, degree of involvements and expertise and knowhow are very important in influencing the use of information from Twitter for travel planning purposes
7	Ayeh et al. (2013a, 2013b)	To investigate the credibility of consumer generated review on TripAdvisor - Singapore	Online	Data was collected from 661 tourists from Singapore	SEM	Expertise, Trustworthiness, Attitude, Homophily	Intention	Source Credibility	HM→TRU (.455); HM → EX (.473); TRU → ATT (.422); TRU → INT (.126); EX → ATT (.218); EX → INT (.037) ATT → INT (.649)		Tourists trusted and believed travel information from those they perceived as similar than others.

8	Ayeh (2015)	To investigate the acceptance of consumer generated media for trip planning using the technology acceptance model and source credibility theory in the context of TripAdvisor - UAE	Online	661 consumer-generated media users	SEM	Attitude, Usefulness, Expertise, Trustworthiness, Ease of Use	Intention	TAM, SC	ATT → INT (.538); PU → INT (.266); TRU → ATT (.257); TRU → PU (.248); PEOU → ATT (.416); PEOU → PU (.461)	Integrating technology acceptance factors with information adoption can enhance the understanding of consumer-generated media usage in the context of trip planning
9	Ayeh et al. (2013a, 2013b)	To determine factors influencing the use of consumer travel reviews by travelers - USA	Online survey	535 respondents	SEM	Perceived ease of use, Perceived enjoyment, Usefulness, Attitude, Perceived similarity, Trustworthiness	Intention	TAM	PEOU → EN (.79); PEOU → INT (.131); PEOU → ATT (.177); PU → INT (.117); PU → ATT (.186); TRU → ATT (.334); TRU → INT (-.046); EN → INT (.256); EN → ATT (.256); ATT → INT (.292)	The original TAM constructs positively predicted the use of consumer generated review, however, ease of use and enjoyment have greater effect in the context of user generated content in travel planning
10	Wang (2015a, 2015b)	Based on motivational theory, the study investigates how both extrinsic and intrinsic factors influence customers' intention to check in on Facebook in hospitality firms - Taiwan	Online	490 Taiwanese Facebook users	SEM	Extrinsic (Social Influence, External Rewards, Cyber community Utility), Intrinsic(presenting onself, perceived enjoyment, Altruism	Intention	MT	NA	Social influence, external rewards, cyber community utility, presenting oneself, perceived enjoyment and altruism were very influential factors in determining online customers' intention to check in on Facebook.
11	Sparks and Browning (2011)	To understand how trust in online reviews influences hotel booking intention - Australia	Data was collected online	5500 respondents	ANOVA	Trust, Framing, Valence	Intention	eWOM	NA	Consumers are easily influence by early negative reviews however, positively valenced reviews with numerical ratings positively influence intention and trust

12	Hsiao et al. (2013)	To understand how the features of storytelling blogs influence travel intention - Taiwan	Data was collected online	368 respondents	SEM	Perceived aesthetics, Narrative structure, Attitude, Sell reference, Empathy	Intention	TRA	PEST → EMP (.25); NS → EMP (.498); SR → EMP (.215); PEST → ATT (.506); EMP → ATT (.372); ATT → INT (.739)	Blogs with appealing aesthetics and well-designed layouts strongly influence visit intention
13	Yang (2017)	To explore the predictors of satisfaction and intention through restaurant social media use - Hong Kong	Face-to-face	244 Hong Kong and Macau residents who social media for restaurant selection	SEM	Usefulness, Ease of use, Satisfaction, Knowledge sharing factors (Egoism, Altruism)	Intention	TAM, E-WOM	PU → INT (.55); PEOU → INT (.08)	Individuals altruistic needs influences need to engage in e-WOM. Also PU of the website has a significant main effect on eWOM intentions
14	Wang (2015a, 2015b)	To understand the role of consumer reviews (e-EOM) on destination choice - China	Data was collected online	195 respondents	SEM	Attitude, Argument quality, Source credibility	Intention	ELM, TPB	AQ → ATT (.173); AQ → INT (.192); ATT → INT (.149)	Tourists' intention to visit Finland is influenced by attitude
15	Wu and Chang (2005)	To understand how flow affects interactivity in online travel communities - Taiwan	Online	286 respondents	SEM	Benevolence, Time distortion, (Flow) Enjoyment, Machine Interactivity, Ability, Integrity, Predictability, Person interactivity	Intention	FLOW	ENJ → INT (.26); TD → INT (-.02);	Interactivity is the cardinal factor that engenders flow in which in turn leads to the sustainability of online travel communities
16	Chung and Koo (2015)	By integrating the prospect and mental accounting theory, the study seeks to examine the role of social media on travel search - Republic of Korea	Online	695 respondents from Korea	SEM	Perceived value, Enjoyment, Information reliability, Complexity, Effort	Usage	VAM	PV → US (.188); IR → PV (.331); IR → US (-.024), ENJ → PV (.437); ENJ → US (.449); COMPL → PV (-.115); COMPL → US (.088); EFF → PV (.167); EFF → US (.035)	Travellers perceived value on social media has a positive effect on travel information search. Also, both the benefits sought and sacrifices impact social media usage for travel information search
17	Chung et al. (2015)	To investigate factors influencing travel information adoption - Republic of Korea	Online	527 Korean respondents	SEM	Perceived usefulness, Social relationships, Argument quality, Source credibility	Intention	ELM	AQ → PU (.199); SC → PU (.397); SC → SR (.143); PU → SR (.330); PU → INT (.597); SR → INT (.162)	Perceived usefulness and social relationships had significant effect on intention to use information.

18	Parra-Lopez et al. (2011)	To propose a theoretical model that explain factors influencing tourists when taking and organizing trips - Spain	Data was collected online	404 netizens	SEM	Functional, social and hedonic benefits; Effort, difficulty of usage and loss of privacy costs.	Intentions	INT	COS → INT (.01); BEN → INT (.44); INC → INT (.36)	Perceived benefits influenced intentions to use social media. Additionally, altruism, individual predisposition, and trust also determine intention to use social media
19	Zarrad and Debabi (2015)	To investigate the relationship between E-WOM and travelers' intention to take a trip - Tunisia	Face-to-face	219 foreign tourists in Tunisia	SEM	E-WOM, Attitude	Intention	E-WOM	E-WOM → ATT (.766); E-WOM → INT (.547); ATT → INT (.501)	E-WOM has a credible influence on attitude and intention to revisit Tunisia
20	Tsao et al. (2015).	To investigate the effect of online review valence, review quantity and how the two affect conformist and non-conformist travelers - Taiwan	2 Experiments	First was 142, second was 391 respondents respectively	ANOVA	Likelihood, Probability and Willingness	Intention	UGC	NA	Reading positive reviews can have positive effect on travelers inclined to conformity.
21	Bilgihan et al. (2016)	To develop and test a model of intention to share knowledge in online social networks (OSN) through modifying the original TAM model - USA	Online survey	Online travel shoppers	SEM	Belief in integrity, Switching cost, Utilitarian beliefs, Subjective norm, Perceived ease of use	Intention	TAM, OSN	SN → SC (.422); PEOU → SN (.383); PEOU → UTIL (.309); PEOU → BII (.294); UTIL → BII (.235); SN → BII (.115); BII → INT (.525); PEOU → INT (.254); SC → INT (.037)	Perceived ease of use and belief in integrity positively influenced intention to share knowledge.
22	Kang and Schuett (2013)	To determine factors influencing sharing information on social media for travel purposes - USA	Online survey	543 social media users	SEM	Identification, Internalization, Compliance, Perceived enjoyment, Use of social media, Experience,	Usage	SIT	ID → ENJ (.61); INTL → ENJ (.45); COMPC → ENJ (-.16); ENJ → ATS (.36); ENJ → US (.37); ENJ → LEX (.18); US → ATS (.10)	Identification and internalization moderated by enjoyment are very important in sharing travel experiences

23	Wang (2011)	To examine factors influencing the use of gastronomy blogs by travelers - Taiwan	Data was collected through online survey	329 tourists	SEM	Forming taste awareness, Facilitating interpersonal interaction, Inspiring taste desire	Intention	e-WOM	EA → INT (.168); GE → INT (.223); PI → INT (.16); DK → INT (.097); PG → INT (.15); SI → INT (.139); CI → INT (.200)	Blogs that conveyed image, empathy, appeal, cyber community and guides strongly influenced reading intention
24	Jalilvand et al. (2013)	To investigate the interrelationships among E-WOM, tourists' attitude and travel intention - Iran	Face-to-face	189, foreign tourists in Iran	SEM	e-WOM, Attitude	Intention	E-WOM	E-WOM → ATT (.870); E-WOM → INT (.320); ATT → INT (.290)	E-WOM positively influences tourists attitudes and travel intention
25	Hosany and Prayag (2013)	To investigate the role of tourists' emotional profiles and post-consumption experience influence on recommendation intention - UK	Postal survey	520 respondents	SEM	Positive surprise, Unpleasantness, Joy, Love	Intention, satisfaction	CNTT	NA	By uncovering five different tourists' emotional responses, the study found these emotions have different levels of influence on satisfaction and intention to recommend
26	Muñoz-Leiva et al. (2012)	To examine the role of Web 2.0 in tourists' travel behavior - Spain	Online	440 respondents	SEM	Ease of use Trust, Attitude, Usefulness	Intention	TAM	PU → ATT (.06); PU → INT (.44); PEOU → PU (.06); PEOU → ATT (.09); PEOU → INT (.47); PEOU → TRU (.10); ATT → INT (.26); TRU → PU (.25); TRU → ATT (.22); TRU → INT (.47)	The cognitive and behavioural responses of the tourist is determined by the components of the travel site.
27	Filieri and McLeay (2013)	To determine factors influencing the use of online reviews - Italy	Data was collected online	Individuals numbering 578	SEM	Product ranking, Information accuracy, Information quantity, Information relevance, Information value added, Information understanding, Information timeliness, Information completeness and Information adoption	Adoption	ELM	NA	Information quality and product ranking are important determinants of information adoption for high-involvement travelers using online reviews

#	Author	Purpose	Data collection	Sample	Analysis	Constructs	DV	Theory	Results	Findings
28	Casaló et al. (2010)	To explain factors influencing participation in firm-hosted online travel communities using the theory of planned behavior, social identity theory and technology acceptance model - Spain	Data was collected online	Sample comprised 456 online community members	SEM	Perceived usefulness, Perceived behavioural control, Attitude, Perceived ease of use Subject norm, Identification	Intention	TAM, SIT and TPB	PU → ATT (.218); PU → INT (.301); PU → TRU (.547); TRU → ATT (.600); TRU → INT (.306)	The combination of the three theories successfully predicted intention. Additionally, while subjective norm was not an influential factor attitude, perceived behavioural control and perceived usefulness exerted influence
29	Huang et al. (2010)	To investigate the interrelationships among travel bloggers involvement level and travel bloggers intention to purchase travel products online - Taiwan	Online	398 Taiwanese travel bloggers	SEM	Personal involvement, Product involvement, Situational involvement Ad Memory, Ad Attitude, Brand Attitude,	Intention	E-WOM	NA	High involvement travel bloggers are more likely to form favourable impressions with regard to add in travel blogs.
30	Albarq (2014)	To investigate the causal E-WOM relationship between tourists' attitude regarding specific destinations and actual intention to travel - Jordan	Face-to-face	302 foreign tourists to Jordan	SEM	E-WOM, Attitude	Intention	E-WOM	E-WOM → ATT (.046); E-WOM → INT (.051); ATT → INT (.041)	E-WOM positively influences tourists' intention to travel to Jordan as a destination
31	Munar and Jacobsen (2014)	To investigate factors influencing motivations for sharing travel contents on social media and use - Denmark & Norway	Face-to-face	398 Danish and Norwegian tourist	Chi-square Statistic (x^2)	Motivations to use Blog, Facebook, Twitter	Usage	E-WOM	NA	Sharing of content on social media appears as sociability and emotional support. Information sources are of lesser relevance for holiday decision-making

32	Khan and Khan (2015)	To investigate the intentions that motivate Muslim tourists to engage in eWOM	Face-to-face	203 foreign Muslim tourists in Malaysia	SEM	Convenience, Social reassurance and Social acceptance	Intention	E-WOM	NA	Intention to use eWOM among Muslim tourists is underpinned by social acceptance, social reassurance and convenience
		- Malaysia								
33.	Cheng et al. (2006)	To investigate the negative word of mouth intention through the TPB	Face-to-face	394 Chinese restaurants customers	SEM	Attitude, Subjective norm, Perceived behavioural control	Intention	TPB	ATT → INT (.587); SI → INT (.694); PBC → INT (1.00)	Attitude, subjective norm and perceived behavioural control were positively related to consumers negative eWOM communication intention
		- China								
34	Zhang, Wu, and Mattila (2014) Sage	To investigate the effects of peripheral factors in influencing consumers intention to use eWOM	Panel	Panel study of 83 participants	Multivariate analysis of variance (MANCOVA)	Attitude, Trustworthiness	Intention	CLT	NA	Behavioural measures are more closely linked to consumer' motivational states than pure evaluative judgments such as attitudes
		- China								
35	Chen et al. (2014)	To determine how the different features of travel blogs influence travel intention	Online survey	179 students	SEM	Novelty, Perceived enjoyment, Understandability, Reliability, Interestingness	Intention to visit	e-WOM	NC → US (.306); RC → US (.027); UC → US (.177); IC → US (.289); US → INT (.333)	The novelty of travel blog and its understandability are strong determinants of intention
		- Taiwan								
36	Liu and Lee (2016)	To investigate a framework integrating service quality, WOM and price perception in predicting revisiting intention among airline passengers	Face-to-face	484 airline passengers	SEM	Word of Mouth, Monetary price, Behaviour price, Service quality	Intention	SQ	MP → INT (.316); WOM → INT (.396); BP → INT (.112)	Service quality is related to increased price perception which results in increasing passengers' WOM, which also creates success in this regard by increasing their revisit intention.
		- Taiwan								

37	Oz (2015)	To investigate the factors influencing social media use for travel related purposes - Turkey	Online	228 social media travel users	SEM	Social Media number used, Benefits perception	Usage	UGC	NA		Social media were used more for pre-travel information seeking. It was used mainly to find information about destinations, attractions, hotels, transportation, food and beverages and price.
38	Lee et al. (2012)	Using extended TAM model, the study investigates factors influencing the use of Facebook for attending a festival - USA	Online	155 Facebook users	SEM	Attitude, Perceived usefulness, Perceived ease of use, Perceived enjoyment, Valence,	Intention	TAM	ATT → INT (.86); PU → PEOU (.88); PEOU → ENJ (.69); VAL → PU (.10); VAL → PEOU (.46); VAL → ENJ (.21); ENJ → ATT (.73)		Perceived usefulness and perceived ease of use had no effect on attitude towards using Facebook to attend the festival
39	Alcazar, Pinero, and Maya (2014)	To investigate the influence of user generated content on destination image formation - Spain	Face-to-face	194 social media users	SEM	Affective dimension of image, Cognitive dimension of image, Access user-generated content	Intention	UGC	ADI → INT (.633); CDI → INT (.486); CDI → ADI (.556); UGC → CDI (.367)		User-generated content is not related to the intention to visit the destination
40	Aluri et al. (2015)	To investigate the effectiveness of embedded social media channels on hotel websites and their influence on traveler behaviour - USA	Online	378 travelers who book hotel online	SEM	Perceived informativeness, Perceived enjoyment, perceived social interaction, Satisfaction	Intention	UGA	INF → SAT (.525); ENJ → SAT (.203); SI → SAT (.074); ENJ → INT (.335); SI → INT (.116); SAT → INT (.510)		Informativeness did not influence purchase intention.

41	Jalilvand and Samiei (2012)	To understand the influence of electronic word of mouth (e-WOM) on destination - Iran	Facial	296 travellers visiting Iran	SEM	Perceived behavioural control, Subjective norm Attitude, electronic word of mouth	Intention to travel	TPB	ATT → INT (.65); EWOM → SN (.88); EWOM → PBC (.84); PBC → INT (.69); SN → INT (.95)	Electronic word of mouth was found to influence travel to Iran
42	Leung and Bai (2013)	Applying the motivation, opportunity and ability (MOA) theory, the study seeks to investigate the social media use in hotel revisit intention - USA	Online	408, Facebook and Twitter users in the USA	SEM	Involvement, Motivation, Ability, Opportunity	Intention	MOA	MOT → INV (.42); OPP → INV (.15); INV → INT (.70)	Travelers' motivation and opportunity are positively related to their involvement in social media use.
43	Lin (2007)	To investigate factors influencing the sustainability of online travel communities through information quality features - Taiwan	Online survey	165 respondents	SEM	Perceived usefulness, Sense of belonging, Information quality, Service quality, Perceived ease of use, System quality, Offline activities	Intention	TAM	IQ → PU (.19); SQ → PU (.31); SQ → PEOU (.24); SERQ → PU (.25); SERQ → PEOU (.20); PU → SOB (.33); PEOU → SOB (.27); SOB → INT (.41)	A quality website imbues trust among members of the online travel community.
44	Pietro and Pantano (2013)	To investigate the influence of social network communication in purchase intention (Facebook) - Italy	Online	1,183 undergraduate students in an Italian university	SEM	Perceived usefulness, Ease of use, E-word-of-mouth communication, Enjoyment	Intention	TAM, E-WOM	PU → INT (.82); PEOU → INT (.31); PEOU → E-WOM (.26); E-WOM → INT (.76); ENJ → E-WOM (.37); ENJ → INT (.41)	E-WOM and Enjoyment show a significant effect on purchase intention in addition to PU and PEOU
45	Ayeh (2012)	To develop a conceptual framework for understanding the factors affecting online travellers' attitude and intention to use consumer-generated media in travel planning through the TAM model - USA & Singapore	Online	201, Singaporean and American travellers who use consumer-generated media	SEM	Perceived usefulness, Trustworthiness, Expertise, Perceptual homophily, Perceived ease of use, Perceived enjoyment, Perceived media richness, Attitude,	Intention	TAM	CR → PU (.161); CR → ATT (.327); CR → INT (.045); ENJ → PEOU (.797); ENJ → ATT (.241); PU → ATT (.134); PU → INT (.321); PEOU → ATT (.259); PEOU → PU (.435); ATT → INT (.474)	Perceived media richness, credibility and PEOU were significant predictor of online travellers' perception of CGM usefulness.

46	Sparks et al. (2013)	To investigate the role of travel reviews on intentions to travel	Data was collected through online survey	537 respondents	SEM	Trust, Quality belief, Attitude, Utility, Corporate social responsibility	Intention	ATT	ATT → INT (.73); TRU → INT (.61)	Travel reviews from fellow travelers are very important in influencing intention
			- Australia							
47	Aluri (2012)	To investigate if embedding social media channels on hotel websites influence travellers' satisfaction and purchase intention	Experimental study	422 volunteers	SEM	Perceived informativeness, Perceived enjoyment, Perceived social interaction, Travellers' Satisfaction	Intention	UGA	NA	Perceived social interactions were influenced by embedding social media channel in hotel website
			- USA							
48	Casalo et al. (2011)	To understand factors influencing travelers intention to use advice from online travel community	Online survey	456 respondents	SEM	Perceived usefulness, Attitude, Trust	Intention	TAM	PU → ATT (.164); PEOU → ATT (.379); ID → ATT (.609); ATT → INT (.350); SN → INT (-.087); PBC → INT (.471)	Intention to use advice from online travel community is determined by the attitude towards the community
			- Spain							
49	Ozturen (2013)	To examine the effects of trust beliefs on purchase intentions of trip planners within the context of online social review network (TripAdvisor) by analyzing dimensions of e-trust	Face-to-face	311, Cyprus students	Regression analysis	Overall trust, Perceived benevolence, Perceived ability, Perceived predictability	Intention	TRUST	NA	Integrity and benevolence are strong predictor of intentions while predictability has no significant influence.
50	Duhan and Singh (2014)	To explore the antecedents of virtual communities adoption by tourists visiting Varanasi	Face-to-face	104 Indian tourists visiting Varanasi	SEM	Perceived usefulness, Perceived ease of use, Attitude, Subjective norms	Intention	TAM, TRA	NA	PU, PEOU, SN and ATT all showed predictive power to influence behavioural intention.
			- Cyprus							

51	Ku (2011)	To determine the factors influencing the use of online travel community on intentions to travel - Taiwan	Data was collected online	435 respondents	SEM	Perceived usefulness, Flow experience, Behavioural intention, Perceived enjoyment	Participation	TAM	NA	Perceived enjoyment leads to flow experience and influences intention to use the online travel community
52.	Chong and Ngai (2013)	Using UTAUT2, the study investigates the factors influencing the adoption of location-based social media for travel planning - China	Face-to-face	200, Chinese location-based social media users	SEM	Performance expectancy, Effort expectancy, Social influence, Facilitating conditions, Price value, Hedonic motivation, Habit, Mobile internet experience, Behavioural intention	Usage	UTAUT2	PE → INT (.16); EE → INT (.16); SI → INT (.14); FC → INT (.19); HM → INT (.20); HT → INT (.12); PV → INT (.17); MIE → INT (.06); RA → INT (.01); INT → US (.39)	Argument strength, review rating, reviewer trustworthiness, reviewer experience and review sidedness influence adoption of online reviews
53	Wang (2012)	To determine the effect of cognitive and cyber-interactive effects of blogs - China	Online	323 travel blog users	SEM	Building cognitive images, Facilitating interpersonal interaction, Building affective images	Intention	eWOM	GE → DI (.158); EA → DI (.148); DK→DI (.026); PG→DI (.275); SI→DI (.195); CI→DI (.199); DI→INT (.248)	Travel blogs are very influential in shaping destination image
54	Filieri et al. (2015)	To investigate factors influencing trust in consumer generated media - UK	Online	366, accommodation and restaurant customers in the UK	SEM	Website quality, Information Quality, Source credibility, Customer satisfaction, Receive experience, Website trust, Word of mouth behavior	Intention	E-WOM	NA	Trust towards a consumer-generated media website influences travel consumers' intention to follow other users' recommendation and fosters positive word of mouth

Abbreviations for the constructs: PU – Perceived usefulness; PEOU – Perceived ease of use; ATT – Attitude; INT – Intention; EX – Expertise; APP – Appeal; IM – Image; KNW – Knowledge; GUI – Guides, CI – Cybercommunity Influence; ID – Identification; AQ – Argument quality; COS – Cost; INC – Incentives; BEN – Benefits; HMP – Homophily; NC – Novelty of content; RC – Reliability of content; UC – Understandability of content; IC – Interestingness of content; AES – Aesthetics; NS – Narrative structure; SR – Self-reference; NOR – Negative online reviews; TIM – Timeliness; VOL – Volume; POR – Positive online review; COMPH – Comprehensiveness; IQ – Information quality; SQ – Service quality; SOB – Sense of belonging; TD – Time distortion; VA – Value; IR – Information reliability; COMPL – Complexity; EFF – Effort; SR – Social relationships; BII – Belief in integrity; UTIB – Utilitarian beliefs; COMPC – Compliance; PR – Price; VAL – Valence; ADI – Affective dimension of image; CDI – Cognitive dimension of image; INF – Informativeness; SAT – Satisfaction; MOT – Motivation; INV – Involvement; OPP – Opportunity; PE – Performance expectancy; EE – Effort expectancy; FC – Facilitating condition; HM – Hedonic motivation; PV – Price value; MIE – Mobile internet experience; ALT - Altruism

Abbreviations for the theories: TAM – Technology Acceptance Model; ELM – Elaboration Likelihood Model; TRA – Theory of Reasoned Action; TPB – Theory of Planned Behaviour; INT - Intentions to use social media; CDT – Cognitive Dissonance Theory; UTAUT – Unified Theory of Acceptance and Use of Technology; ATT – Attitude; CNTT – Cognitive-Normative Tourism Typology; SERVQUAL – Service quality model, VAM – Value-based Adoption Model; OSN – Online Social Networks; SIT – Social Indentity Theory; CLT – Construal Level Theory; UGA – Uses and Gratification Approach; SCT – Source Credibility Theory; MT – Motivational Theory; IAM – Information Adoption Model; FT – Flow Theory

Appendix 2. Journals and date of publication

		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total	%
1	International Business Research	–	–	–	–	–	–	–	–	–	1	–	–	1	1.8
2	Tourism Management Studies	–	–	–	–	–	–	–	–	–	1	–	–	1	1.8
3	Cornell Hospitality Quarterly	–	–	–	–	–	–	–	–	–	–	1	–	1	1.8
4	Computers in Human Behaviour	–	–	–	–	–	–	2	–	–	1	1	–	4	7.2
5	Journal of Travel Research	–	–	–	–	–	–	–	–	2	1	–	–	3	5.4
6	Tourism Management	–	–	–	–	–	2	1	–	2	1	1	1	8	14.5
7	Journal of Hospitality & Tourism Research	–	1	–	–	–	–	–	–	1	–	1	–	3	5.4
8	Pacific Asia Conference on Information Systems	–	–	–	–	–	–	–	–	–	1	–	–	1	1.8
9	Telematics & Informatics	–	–	–	–	–	–	–	–	–	–	1	–	1	1.8
10	Behaviour and Information Technology	–	–	–	–	–	–	–	–	–	–	1	–	1	1.8
11	Journal of Direct, Data and Digital Marketing Practice	–	–	–	–	–	–	–	–	1	1	–	–	2	3.6
12	International Journal of Contemporary Hospitality Management	–	–	–	–	–	–	–	–	–	–	3	–	3	5.4
13	Journal of Business Research	–	–	–	–	–	–	–	–	1	–	–	–	1	1.8
14	Social and Behavioural Sciences	–	–	–	–	–	–	–	–	1	–	–	–	1	1.8
15	Internet Research	–	–	1	–	–	–	1	1	–	–	–	–	3	5.4
16	International Journal of Islamic Marketing and Branding	–	–	–	–	–	–	–	–	–	–	1	–	1	1.8
17	Journal of Travel and Tourism Marketiing	–	–	–	–	–	–	–	–	2	–	–	–	2	3.6
18	International Journal of Hospitality Management	–	–	–	–	–	–	1	1	–	–	2	–	4	7.2
19	Journal of Air Transport Management	–	–	–	–	–	–	–	–	–	–	–	1	1	1.8
20	Online Information Research	–	–	–	–	–	–	1	–	–	–	–	–	1	1.8
21	Life Sciences Journal	–	–	–	–	–	–	–	–	1	–	–	–	1	1.8
22	Electronic Commerce Research	–	–	–	–	–	–	–	–	1	–	–	–	1	1.8
23	International Journal of Technology Management	–	–	–	–	–	–	–	–	–	1	–	–	1	1.8
24	The Service Industries Journal	–	–	–	–	–	–	–	1	–	–	–	–	1	1.8
25	Service Business	–	–	–	–	–	–	–	–	–	–	1	–	1	1.8
26	Journal of Systems and Information Technology	–	–	–	–	–	–	–	–	–	–	1	–	1	1.8
27	Industrial Management and Data Systems	1	–	–	–	–	–	–	–	–	–	–	–	1	1.8
28	International Research Journal of Social Sciences	–	–	–	–	–	–	–	–	–	–	1	–	1	1.8
29	Others	–	–	–	–	–	–	–	2	1	1	–	–	3	7.2
		1	1	1	0	0	2	5	6	14	8	15	2	54	100

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III

INFLUENCE OF OFFLINE ACTIVITIES AND CUSTOMER VALUE CREATION ON ONLINE TRAVEL COMMUNITY CONTINUANCE USAGE INTENTION

by

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Influence of offline activities and customer value creation on online travel community continuance usage intention

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Abstract

The purpose of this study is to empirically test a model that examines the roles of offline activities and customer value creation on tourists' continuance use of online travel communities (OTCs). Hypotheses were tested through a sample of 251 respondents on Amazon Mechanical Turk (MTurk). SmartPLS structural equation modeling was used to test the structural model. Results indicated that offline activities significantly influence hedonic and social values, while this support was not found with functional value. Similarly, while offline activities positively influence continuance usage intention, no positive relationship was established between offline activities and recommendation intention. Additionally, the three dimensions of customer value creation positively influenced continuance usage intention. This study suggests that in planning offline activities, managers of OTCs must understand the dynamics of customer value creation in order to enhance social bonds among members and continuous usage of the OTC.

Keywords: offline activities, social presence, customer value creation, continuous usage intention

1. Introduction

Online travel communities (OTCs) are important for both consumers and tourism firms. OTCs provide consumers with the opportunity to make informed travel decisions through reading about and learning from the experiences of others, who share their stories on such platforms [1], while tourism firms use them as strategic platforms to foster customer engagement and deepen consumer ties to their brands [2]. As organisations increasingly host OTCs, consumer interest in these platforms also steadily increases. For instance, recent reports indicate that while TripAdvisor currently welcomes an average of 455 million unique monthly visitors, Facebook is home to 2.13 billion active users [3; 4]. For Facebook, this is an approximate 73% increase from its 2013 records, which calculated 1.23 billion active users [5]. This promising trend has spurred both firms and private individuals to set up their own online communities.

In spite of this positive trajectory for online communities, the recent experiences of such notable firms as British Airways, AirFrance, Sony, Dell, and the British Broadcasting Corporation—all of which shut down their online communities shortly after launch [6]—create serious concerns that raise critical questions about the sustainability of OTCs. Critics have highlighted that so long as online deviant

behaviours remain unchecked, users will continue to lose interest in participating in such communities [7]. In order to improve the confidence of participants, tourism and travel sites are organising offline activities as part of their strategy to reinforce and consolidate established online relationships and maintain a loyal customer base [8]. To this end, offline fan clubs that host informal meetings and gatherings are common in recent times. In most cases, these forums provide a company with an opportunity to propagate its brand and generate positive word-of-mouth reviews [9].

However, evidence from the relationship marketing body of knowledge reveals that consumers are wary of relationships or purchase experiences that accrue little or no value [10; 11]. Customer value is a cardinal determinant of relationship continuance, because consumers often perpetuate the relationship from which they derive the maximum value [10]. Accordingly, firms will settle into advantageous positions if they exploit how offline activities impact customer value. Interestingly, despite numerous investigations on customer value, literature is scarce regarding critical questions relating to offline activities and customer value and how they influence continuance intention in OTCs. Additionally, the studies that examine the post-adoption behavior of consumers in OTCs are few [12]. This paper aims to fill this gap by developing a model to test the role of offline activities in perceived customer value and their effects on continuance intention in OTCs. This paper seeks to contribute to OTC customer post-adoption behaviour literature by examining the importance of offline activities and how they affect different components of customer value in continuance participation. In so doing, it examines the theoretical issues and managerial practices that foster OTCs.

2. Literature review and theoretical framework

2.1 OTCs

OTCs offer a communication and networking platform for users and a forum where people can interact, share thoughts on places of interest, and provide reviews on areas they have visited [12; 13]. It also offers the opportunity for travelers to discover what other people think about destinations and facilities [2]. OTCs are changing travelers' consuming behavior, as travelers rely on the opinions and recommendations of other travelers. These communities rely on members to create content relevant for others. Developing and sustaining communities has become a critical issue for community managers, as active participation is crucial for their long-term survival [12; 14]. To make communities more cohesive, they often organise events and offline activities to offer an opportunity for community members to engage and interact. Previous studies on OTCs have focused on the antecedents of community involvement and contribution [15; 16] and consumer intentions to participate [2]. Additionally, [2] found that the perceived usefulness of provided information positively influences attitudes toward participation, just as [15] earlier found that participants are motivated to contribute to online communities by social and hedonic benefits. However, the members' sense of belonging increases when offline activities are organised that maintain previously formed social ties [8].

2.2. Conceptual model and hypotheses

2.2.1 Social presence and customer value creation in OTCs

According to Short et al. [17], social presence theory describes the "degree of salience of the other person in the interaction and the consequent salience of the interpersonal relationships". The theory is related to two social psychology concepts: "intimacy"— referring to physical distance between communicators and barriers to communication; television offers greater intimacy than radio—and "immediacy," a measure of the psychological distance that a communicator puts between himself or herself and the object of his/her communication. With the advancement of communication technology and the related increasing usage of the internet for communication and interaction, [18] noted that the social presence theory can contribute to a better understanding of social behavior in mediated environments. Thus, a stream of research has identified social media as platforms with a high social presence, as they afford communicators the opportunity to present themselves to others as "real people" [19; 20; 21]. This implies that social media afford users the opportunity to better understand those they are in contact with through their profiles and real time chat. However, critics contend that with the abundance of deceitful profiles in social media, offline activities such as phone calls and physical meetings are necessary to increase social presence among friends on online platforms [22]. Accordingly, members of OTCs can be encouraged to strengthen their online social ties through offline phone calls. Managers of OTCs can increase the customer value of their sites when offline activities, such as phone calls and face-to-face meetings and gatherings, are regularly organised for members.

[23, p.231] define customer value creation as "the process by which producers and consumers, as peer subjects, co-create value for themselves and each other." This involves dialogue and interaction between the firm and the customer for mutual benefits. Early scholars viewed customer value as a trade-off between quality and price [24]. This perspective measures customer value as a function of the quality of the product and the price paid. Several years later, customer value was conceptualized into five dimensions: functional, conditional, social, emotional, and epistemic values [25]. Subsequently, scholars have measured value as both a unidimensional and multidimensional construct [26; 11; 27; 28]. From an online social network perspective, [23] presented customer value creation as a three-dimensional construct, having functional, hedonic, and social values.

Functional value is based on the assumption that individuals are rational problem-solvers [23]. From the perspective of OTCs, functional value encompasses their members' need for information that leads to financial savings and a high quality of service. Firms can send offline messages to members concerning information on new offerings. Additionally, offline activities can be organised to promote the firm's offerings.

Hedonic values have been conceptualized as the feelings and emotive aspects of community involvement [29]. [30] report that enjoyable features are critical in influencing participation levels in OTCs. Thus, this argues that incorporating

enjoyable features leading to fun and pleasure in offline activities will increase customer value.

Social value is considered an independent dimension in total customer value that is used to enhance user status and self-esteem [31]. These values are derived as evidence of a long-term engagement within the community; they represent a symbolic status used to emphasise unique traits [31]. Previous research has only focused on online engagement for co-creating consumer values, but little is known about the influence of offline activities. [32] posits that offline activities can foster and enhance connections within the OTC. A strong sense of social presence is expected to lead to a strong intention to engage with the offline activities of the OTC, as the presence of other members can complement online activities and strengthen the ties within communities [8; 17].

Accordingly, the following hypotheses are proposed:

> *H1: The offline activities of OTCs positively influence their functional value.*
> *H2: The offline activities of OTCs positively influence their hedonic value.*
> *H3: The offline activities of OTCs positively influence their social value.*

2.2.2 Continuance intention

Members' continued interest and willingness to engage in a community will have an impact on the long-term survival of an OTC [33]. It is important that members stick together; this is essential in attracting and retaining members [34] and encouraging the continuous use of the platform. [35, p. 78] described the continuance intention to use OTCs as "an indicator that shows the degree to which a user intends to continue using the social networking site." This study examines continuous intention because social media has significantly changed consumers' decision making process and greatly influenced their patronage of hospitality and tourism services. Accordingly, this study will reveal strategies critical for managers of destinations, airlines and hospitality services to enhance consumers' continuous participation in their OTCs. Thus, it is argued that members will continue to use OTCs that promote activities and information sharing that are likely to satisfy functional, hedonic, and social values. Thus, the following hypotheses are proposed:

> *H4: The functional value of OTCs positively relates to continuance intention.*
> *H5: The hedonic value of OTCs positively relates to continuance intention.*
> *H6: The social value OTCs positively relates to continuance intention.*
> *H7: The offline activities of OTCs positively relates to continuance intention.*
> *H8: The offline activities of OTCs positively relates to recommendation intention.*

2.2.3 Recommendation intention

When members are satisfied with their experience on a platform, they are more likely to invite others [36; 12]. Members' desire to continue using the platform is underpinned by their satisfaction and motivates them to share their positive experiences with others [37; 38].

Accordingly, the hypothesis below is proposed:

H9: Continuous intention of OTC use positively relates to recommendation intention.
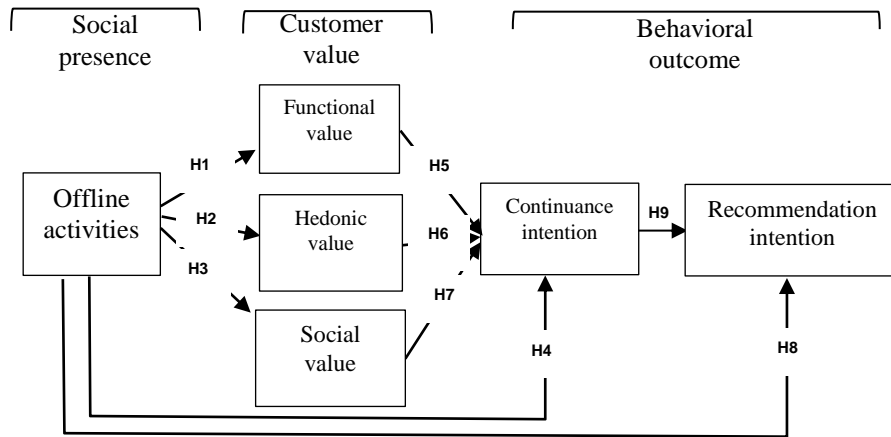

Figure 1 Conceptual model

3. Research method

3.1 Sample, data collection and survey development

The data for this study was collected from Amazon Mechanical Turk (MTurk; https://requester.mturk.com) in August 2018, as specified by [30]. To ensure that participants were members of OTCs and maintained accounts therein, the study requested that they indicate the OTC to which they belonged. In total, 251 usable questionnaires were received and analyzed with SmartPLS 3.27. The operational definitions of the six constructs examined (Fig. 1) are based on previous studies (Table 1). All six constructs were measured with seven-point multiple items adapted from existing studies.

Table 1 Operational definitions of constructs

Construct	Extant operational definition	Reference
Offline activities (OA)	Offline interactions aimed at strengthening the bonds of online community members	[8]
Functional value (FV)	Consumer evaluation of information based on its usefulness and accessibility	[23]
Hedonic value (HV)	Consumer evaluation of information based on its ability to offer comfort, pleasure and fun	[23]
Social value (SV)	Consumer evaluation of social media based its ability to satisfy their need for social interaction	[23]
Continuance intention (CI)	Consumer intention to continue using the social network site	[35]
Recommendation intention (RI)	Consumer willingness to share their positive experiences with others and convince them to also	[23]

	use the social network site		

4. Analysis and results

4.1 Demographic variables

The sample was male-dominated (65.7%). Marital statuses included single (51.8%), married (40.2%), co-habiting (5.2%), and divorced (2.8%). In terms of education level, bachelor's degree holders were most prominent (68.1%), followed by high school or diploma (19.1%), master's degree (11.2%), and Ph.D. (1.6%) holders. Most respondents were professionals (64.1%), followed by technicians (17.5%), students (10.4%), homemakers (5.6%), and civil servants (2.4%). The monthly income levels (in USD) of the respondents were in the order of 3,100–$4,000 (15.5%), $4,100–5,000 (11.6%) and $5,100 or more (12.4%). The respondents that visited travel sites twice a week accounted for approximately one third of the sample (34.7%), three visits per week accounted for one fifth (19.9%), respondents with less than one visit per week comprised 19.1% of the sample, those more than five visits 15.5%, and those with four visits 10.8%. The average time spent by the respondents on each visit ranged from thirty minutes to one hour (53%), less than thirty minutes (22.7%), one to two hours (17.5%), and more than two hours (6.8%).

4.2 Measurement and structural model and hypotheses testing

The adequacy of the measurement model was assessed based on the criteria of convergent validity, discriminant validity, and reliability. All factor loadings were above the recommended boundary of 0.7 [39]. Likewise, composite reliability conformed to the required values and ranged from 0.882 to 0.93 [40]. The average variance extracted (AVE) values were all greater than the stipulated value of 0.5 [41]. Further, discriminant validity was achieved (Table 3) as the square roots of the AVE values were higher than were the correlations between each construct [42]. Fig. 2 illustrates the result of the structural model analysis for this study, including the coefficient of determination (R^2) and standardized path coefficients for all hypothesized relationships. Below, Table 2 shows the factor loading, Cronbach alpha, composite reliability, and AVE of the data.

Table 2 OTC reliability and convergent validity

Variables		Items	Factor loading	Cronbach's alpha	Composite reliability	AVE
Social presence	Offline activities	OA 1	0.92	0.84	0.93	0.86
		OA 2	0.94			
Customer value	Functional value	FV 1	0.88	0.80	0.88	0.72
		FV 3	0.86			
		FV 4	0.79			
	Hedonic value	HV 2	0.89	0.72	0.88	0.78
		HV 3	0.88			
	Social value	SV 1	0.90	0.89	0.93	0.82
		SV 2	0.90			
		SV 3	0.91			

Behavioral outcome	Continuance intention	CI_1	0.87	0.87	0.91	0.73
		CI_2	0.83			
		CI_3	0.87			
		CI_4	0.83			
	Recommendation intention	RI_1	0.86	0.81	0.89	0.72
		RI_3	0.89			
		RI_4	0.80			

Note: the items that loaded below the set criteria were deleted.

Table 3 shows the discriminant validity and the diagonal values with the AVE.

Table 3 OTC discriminant validity

	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
(1) CI	**0.852**					
(2) FV	0.719	**0.845**				
(3) HV	0.683	0.663	**0.884**			
(4) OA	0.03	-0.046	0.225	**0.928**		
(5) RI	0.773	0.714	0.714	0.085	**0.849**	
(6) SV	0.475	0.347	0.588	0.493	0.471	**0.904**

Note: The diagonal values in bold are square roots of the average variance extracted (AVE)

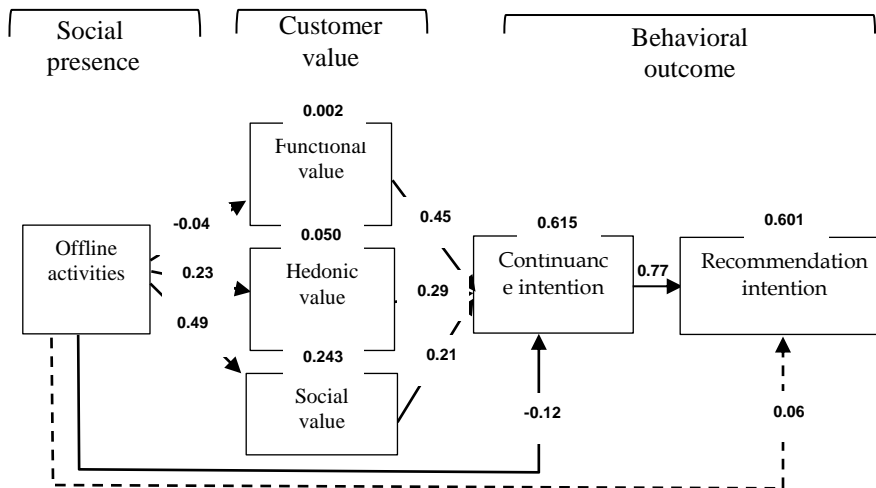**Figure 2** Structural model results

The relationship between offline activities and functional value was not significant (β = −0.04 ns). However, the relationship between hedonic value (β = 0.225***), and social value (β = 0.49***) was significant. Furthermore, offline activities were found

to have a slight influence on continuance intention ($\beta = -0.117*$) but no direct effect on recommendation intention ($\beta = 0.063$ ns). Of the customer value dimensions, functional value had the strongest effect on continuance intention ($\beta = 0.449***$), followed by the effects of hedonic value ($\beta = 0.294***$) and social value ($\beta = 0.206***$). Finally, continuance intention had a strong effect on recommendation intention ($\beta = 0.773***$). Offline activities, functional value, hedonic value, social value, and continuance intention were positive and significant (supporting H2, H3, H4, H5, H6, H7, and H9). These antecedents explained 61.5% of the variance in continuance intention, contributing the largest variance proportion, followed by recommendation intention with a total variance of 60.1%, and a social value variance of 24.3%. The variance explained by functional value and hedonic value were trivial (0.002 and 0.050), as according to [43], the coefficient of determination below weak, near weak, and more than moderate, hence, H1 and H8 were not supported

5. **Discussion, implications and limitations**

The aim of this paper was to develop a model that tests the effects of offline activities on customer value and behaviour in OTCs. Thus, this study returned mixed results, finding that offline activities significantly influence social value and hedonic value but did not impact functional value. Similarly, while support was found for offline activities influencing continuance intention, meaningful support was not found regarding offline activities and recommendation intention. The results also show that the three dimensions of customer value are positive predictors of continuance intention. Similarly, the study found that continuance intention has a significant effect on recommendation intention.

Hedonic value demonstrated a significant relationship with offline activities. Consistent with the findings of [44], the incorporation of activities leading to pleasure and entertainment was found to build emotional ties of members in offline contexts and also lead to cohesiveness in online platforms. Interestingly, the case was different for functional value. Contrary to [45] who argued that every touchpoint is an opportunity to facilitate interaction and enhance the customer experience with the brand, this study did not establish a positive relationship between functional value with offline activities. Thus, this suggests that offline activities should de-emphasize on the firms' offerings but focus primarily on the entertainment value of such events. However, among the three dimensions of customer value, social value showed the strongest relationship with offline activities. [46] indicated that social loneliness is a critical contributor to membership in OTCs; members find social and emotional support that lead to strong ties and a sense of identification [30]. Furthermore, it has been highlighted that offline activities such as phone calls, email communication, and gatherings like parties and picnics strengthen friendly online ties and increase the online social presence among members [47].

This study also contributes theoretically to tourism literature. First, it extends the social presence theory in OTCs—thus, a contribution to the study of post-adoption behaviour of consumers in OTCs. Offline communications strongly contribute to cohesiveness and strengthen social presence in OTCs. Second, by integrating customer value into the model, this study makes valuable contributions to the tourism literature by describing how different dimensions of customer value respond to offline

activities. Thirdly and lastly, the study has also identified customer value as critical in continuance participation in OTCs. [23] identified customer value as a determinant of stickiness, but it nonetheless remains unclear how it affects continuance participation. It is evident through the findings that customer value is also critical, especially as stickiness is perceived as an antecedent of continuance participation [48].

Managerially, this study reveals two ways firms can optimize the value of OTCs. In planning offline activities, managers should de-emphasize programs that promote the firm's products and pay more attention to enhancing the social and entertainment value of such events. For instance, in planning gatherings, members are likely to derive maximum value when such meetings promote effective networking sessions with the likelihood of contact exchanges that will promote email and phone communications among members. Similarly, the food, music, and layouts of such venues should gratify members' desire for pleasure and enjoyment. However, in the day-to-day management of the OTCs, managers should encourage information sharing on travel destinations, products, and prices. These factors have been highlighted as key to member stickiness on OTCs [23].

The study is not without limitations. Only two items were used in some dimensions because other items were dropped, as their low factor loading affected other items. It is believed this likely impacts the results, and it is therefore suggested that future studies consider measurement scale validation, particularly in offline activities. Additionally, future research can look beyond the functional, hedonic and social value dimensions to examine if there are other factors that can influence customer value creation. This included shared interest around cultural value, perception of spiritual and religious values and value perceptions regarding recognition and wisdom.

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IV

CUSTOMER VALUE FRAMEWORK AND RECOMMENDATION INTENTION: THE MODERATING ROLE OF CUSTOMER CHARACTERISTICS IN AN ONLINE TRAVEL COMMUNITY

by

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Customer Value Framework and Recommendation Intention: The Moderating Role of Customer Characteristics in an Online Travel Community

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Abstract

The aim of this study was to develop and test a model that examined the interactions among the customer value framework, recommendation intention and customer characteristics in an online travel community (OTC). Data were obtained using Amazon Mechanical Turk from 251 members of an OTC as a sample. The partial least squares method was used to analyse the data. We found that all the variables of the customer value framework, including functional value, hedonic value and social value, were positively related to recommendation intention. In addition, using multi-group analyses, the study found differences between how different customer segments perceive each of the value dimensions and their effect on recommendation intention. Theoretical and managerial implications are offered.

Keywords: customer value framework, recommendation intention, customer characteristics, online travel community

1. Introduction

Online travel communities (OTCs) provide consumers with a platform for sharing travel experiences [1]. Due to the value that consumers gain from such a platform, the OTC has become a motivator and a critical information source for travel decisions [2]. For instance, while those who join travel booking sites are motivated by the informational content (i.e. the quality of the reviews), including information on the brand or the destination's offering and attractiveness [3], community members on social networking and blogsites are motivated by social, hedonic and altruistic value [4, 5].

Consumer behaviour theorists argue that consumer needs and preferences underlie value perceptions [6]. Thus, the customer value framework has been conceptualised to clarify the understanding and enhance the measurement of customer value [7]. The components of customer value vary across different contexts; however, most consumer behaviour literature typifies customer value into functional, social and hedonic value [6]. Several studies have linked customer value to either positive word of mouth or recommendation intention [8, 9]. In the OTC literature, a positive association exists between customer value and continuous participation [10]. Additionally, consumer characteristics have been found to play different roles in different consumption contexts. For instance, [11] found that males and females differ significantly regarding

satisfaction, relationship maintenance, entertainment and disconfirmation of entertainment with Facebook. Understanding how customer value impacts recommendation intention in OTCs is critical because the sustainability of OTCs depends on new members who join the platform, of whom a significant number have often been motivated by the recommendations of existing users [12]. Accordingly, this study has two main objectives: examining the effect of the customer value framework on recommendation intention and understanding the role of the customer value framework on a participant's characteristics in relation to recommendation intention.

2. Literature Review

2.1 Consumer value framework

Consumer value is considered the overall assessment of the utility of a product based on perceptions of what is received and what is given [13]. [14, p. 46] defined customer value as an 'interactive, relativistic preference and experience'. [6] recognised the inconclusive effort towards properly describing what consumer value entails because it was not made clear whether customer value is a summative-based (benefits/fewer sacrifices) or a ratio-based (benefits divided by sacrifices) evaluation. They drew on integrated and extended previous conceptual foundations of customer value to develop the customer value framework, which identifies four major types of value that can be created by organisations—functional/instrumental, experiential/hedonic, symbolic/expressive and cost/sacrifice. A recent study sought to develop a better understanding of the framework. [15] posited that consumer value involves a trade-off process, where customers evaluate the benefits received (either utilitarian or hedonic) and the sacrifices given (either monetary or non-monetary) from using a product/service. This was further reiterated by [9], who defined consumer value as the process by which producers and consumers, as peer subjects, co-create value for themselves and each other; these authors also presented customer value creation as a three-dimensional construct that has functional, hedonic and social value.

Functional value is based on the assumption that individuals are rational problem solvers [9]. From the perspective of OTCs, functional value encompasses their members' need for information, which leads to financial savings and high-quality service. It also recognises the desired characteristics of the OTC, which makes it more encouraging to use [6]. Functional value is derivable if an OTC has the appropriate features, functions, attributes, appropriate performance levels (e.g. reliability) and appropriate outcomes and operational benefits [9]. By contrast, social value is considered an independent dimension in total customer value that enhances user status and self-esteem [16]. These value offers are derived as evidence of long-term engagement within the community; they represent a symbolic status that is used to emphasise unique traits [16]. Social value closely relates to the symbolic and expressive value of OTCs, which highlight the extent to which users attach or associate psychological meaning to their engagement in the community [6]. Previous research has only focused on online engagement for co-creating consumer value, but little is known about its influence on recommendation intention in an OTC. Finally, hedonic value has been conceptualised as the feelings and emotive

aspects of community involvement [17]. It represents the extent to which an OTC creates appropriate experiences, feelings and emotions for its users [6]. [18] reported that enjoyable features are critical in influencing participation levels in OTCs.

2.2 The dynamics of customer characteristics in OTCs

While customer segmentation has been performed mainly based on gender, it is essential to recognise that gender refers to psychological features that are related to biological nature and sociological variables [19]. Notably, these differ between males and females. Studies have shown that there are differences in how men and women think and behave based on their role in society. Research on gender differences has suggested that males and females possess different attitudes and preferences in using different information systems [20]. [21] recognised that these attributes can influence the behaviours and attitudes of each gender differently regarding consumption activities. [22] also found that female consumers are more likely to look for hedonic value because they are sensitive, intuitive, passionate, communal goal-oriented and linked with femininity. In addition, females are relationally oriented, and they like to maintain ties by connecting with friends and engaging in social activities [11]. Conversely, male consumers are more likely to look for functional value because they tend to be independent, rational and individually goal-oriented [22]. They are also more rational and focused on task-oriented activities [11].

Age has been used as a variable to ascertain how individuals evaluate value based on their experience with brands [19]. Several studies have shown that patterns of consumption differ significantly between age groups [21]. While young consumers often have a low-income status and are less experienced in product purchasing compared to older consumers, they exhibit quite different and distinctive online shopping patterns [21] and information searching processes. For instance, young people are more likely to engage in consumer-generated media when planning their vacations than are older people [23]. However, because older consumers have wider circles of friends, they are more likely to recommend OTCs when their information needs are met. Customers who perceive that they obtain greater value from using a service and thus are satisfied with it will continue to use it [15]. The time spent engaging with other users on an OTC is important for its survival [10], suggesting the need to make it more valuable for users. Individuals participate in social networks due to perceived value as hedonic value, utilitarian value and social value [24]. Likewise, stickiness—an integrated index for measuring individuals' duration of stay in online communities, frequency of visits and willingness to revisit [24]—has been considered an important behavioural outcome to explore in online communities [18]. It will help ensure a longer period of participation in community activities and interaction with other members in the community [25]. Given that OTCs are relationship-centric and inherently participatory [26], the adequate sharing of travel information and knowledge is a fundamental concern. A community cannot exist, let alone be vibrant and effective, without engagement [27]. Likewise, users' perception of hedonic and utilitarian value offers in OTCs is considered a component of customer satisfaction and a form of positive loyalty (frequency of visits to online virtual communities) [21]. The value offers that are inherent in OTCs should make individuals engage within the community and encourage them to continually use the brand. Thus, we propose the following:

H1. The perceived functional value of OTCs is positively related to recommendation intention.

H2. The perceived hedonic value of OTCs is positively related to recommendation intention.

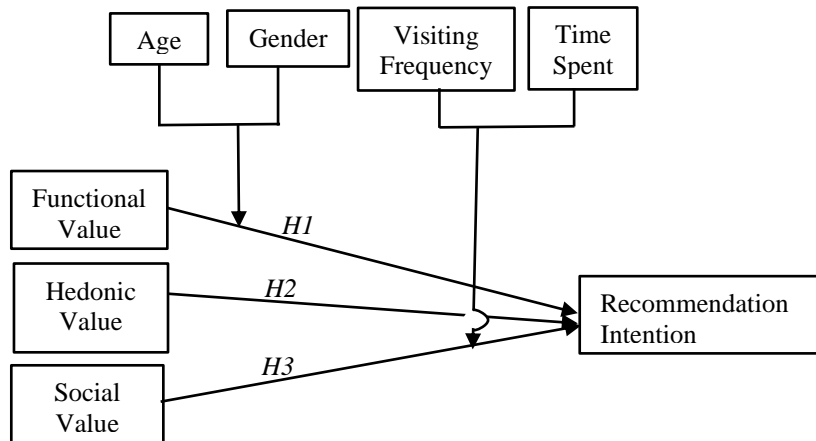*H3.* The perceived social value of OTCs is positively related to recommendation intention.

Figure 1. Conceptual framework of our study (authors' own figure)

3. **Research Methodology**

The data for this study were collected online through the crowdsourcing of Amazon Mechanical Turk (MTurk). The study opted for MTurk due to its low cost and quick data collection ability. Further, its validity was scrutinised by [28], who explained its peculiar benefits for social science research. Of 253 responses, which were received in August 2018, only 2 cursory responses were deleted, and 251 valid responses were used for the data analysis. Among the respondents, 165 males (66%) and 86 females (34%) participated. See Table 2 for the profile of respondents including five of the most frequently occurring OTCs in the sample.

This study utilised existing validated measures and modified the wording of items to suit the context. The items for functional, social and hedonic value and recommendation intention were adapted from [9]. The study measured items on a seven-point Likert scale, with 'strongly disagree (1)' as the lowest and 'strongly agree (7)' as the highest. Table 1 shows the details of the measurement items.

Table 1. Online Travel Community Measurement Indicators (compiled by authors)

Latent Variables	Indicators

Functional Value (FV) (0.71[a]; 0.88[b])	FV1. The content (information) on this online travel community is helpful to me (0.89[c]). ***FV2. The content (information) on this online travel community is useful to me.** FV3. The content (information) on this online travel community is functional for me (0.86[c]). FV4. The content (information) on this online travel community is practical for me (0.79[c]).
Hedonic Value (HV) (0.78[a]; 0.88[b])	***HV1. I feel pleased and relaxed in this online travel community.** HV2. I gain joy and happiness from this online travel community (0.88[c]). HV3. I feel inspired in this online travel community (0.88[c]).
Social Value (SV) (0.82[a]; 0.93[b])	SV1. I can make friends with people who share common interests with me in this online travel community (0.90[c]). SV2. This online travel community helps strengthen my connections with other members (0.89[c]). SV3. I can expand my social network through participation in this online travel community (0.92[c]).
Recommendation Intention (RI) (0.72[a]; 0.89[b])	RI1. I would recommend this online travel community to friends (0.86[c]). ***RI2. I will participate in this online travel community more often than in others.** RI3. I will say positive things about this online community to other people (0.89[c]). RI4. I would encourage friends and relatives to do business with the brand of this online community (0.79[c]).

* Removed indicators < 0.5

*Average Variance Extracted[a]; Composite Reliability[b]; Item Loadings[c]

Table 2. Online Travel Community Respondent Descriptive Statistics (compiled by authors)

Descriptive	Classification	Frequency	Percentage
Gender	Male	165	66
	Female	86	34
Age	Young	122	49
	Old	129	51
Visiting Frequency	Frequent	116	46
	Infrequent	135	54
Average Time Spent	Longer time	61	24
	Lesser time	190	76

Selected OTCs	TripAdvisor	73
	Facebook	35
	Yelp	33
	Reddit	30
	Advocate communities	29

4. Data Analysis

This study used SmartPLS version 3 with the Structural Equation Modelling (SEM) approach [29]. SmartPLS software is appropriate for both reflective and formative data analysis. Additionally, [30] contended that partial least squares structural equation modelling (PLS-SEM) and covariance-based structural equation modelling (CB-SEM) are complementary rather than competitive. Thus, PLS-SEM is recommended for either predicting or identifying key target constructs and/or drivers. Compared to covariance SEM, SmartPLS was preferable for this study because it simplified the issue of sample size [31; 32]. With SmartPLS software, the study was able to assess the measurement scales and examine the structural model [33]. Further, the study embarked on reliability and validity tests of the measurement model. The composite reliability (CR) as a reliability criterion, as shown in Table 1, was above the average of 0.70, as recommended by [34]. The CR and average variance extracted (AVE), as criteria for convergent validity, were of high quality. The CR values were all higher than 0.70, and the AVE for each latent variable was greater than the threshold of 0.50 [33]. Overall, the results revealed acceptable convergent validity of the measurements. Discriminant validity, as suggested by [34], should reflect that the square root of the AVE, diagonally, is greater than the correlation under the latent variables. In this study, the square root of the AVE for the latent variable was greater than the correlation values under the constructs. The results suggest discriminant validity of the study measurements.

4.1 Structural model analysis

This study used the bootstrapping technique with 5,000 samples to determine both the structural explanatory power and the structural model path significance [35; 33]. Specifically, the study tested the proposed model with five distinct samples: the full sample, gender subsample, age subsample, frequency visit subsample and average time visit subsample. The original model explained 62% of the variance in recommendation intentions. In Tables 4 and 5, males and females had equal R^2 (61%). The younger R^2 (68%) was higher than the older R^2 (56%). In addition, the high frequency R^2 (68%) was higher than the lesser frequency R^2 (54%). Higher users recorded the highest R^2 (82%), while lower users accounted for 56%. The functional value had the highest f^2 (0.28) and Q^2 (0.12). These results suggest that functional value has a moderate effect on recommendation intentions and moderate predictive relevance (Q^2) for the recommendation intention [36]. The hypotheses for the full model (H1–3) were significant at $p < 0.05$ and $p < 0.001$. The functional value ($\beta = 0.44$, $p < 0.001$), hedonic value ($\beta = 0.36$, $p < 0.001$) and social value ($\beta = 0.11$, $p < 0.05$) each had a direct significant relationship with recommendation intentions (Figure 2 and Table 3).

Table 3. Online Travel Community Path Coefficient Analysis Result (compiled by authors)

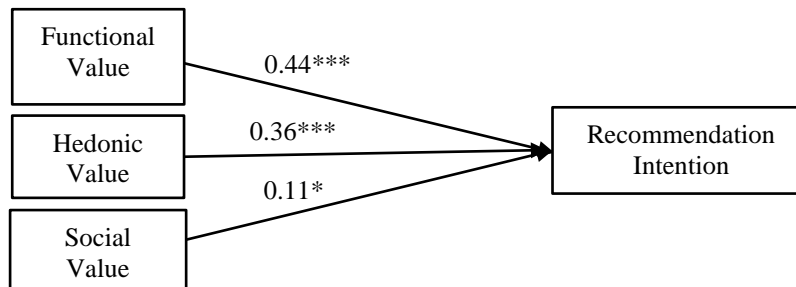| Hypotheses	Variable Relationship	Beta	Std. Dev.	t-values	Decision
H1	FV -> RI	0.44	0.07	6.28***	Accepted
H2	HV -> RI	0.36	0.06	5.97***	Accepted
H3	SV -> RI	0.11	0.05	2.10*	Accepted

Notes. Significant levels *p < 0.05; ***p < 0.001

Figure 2. Partial Least Square Result of the Full Sample (authors' own figure)

Notes. Significant levels *p < 0.05; ***p < 0.001

This study conducted a multi-group analysis for gender, age, frequency of visit and duration of visit to determine how the perception of value by the different customer segments would influence their recommendation intention (Tables 4, 5, 6 and 7). The age bracket of 19–60 was divided into younger (19 – 29) and older (30 – 60) groups. The younger groups had 122 accounts (49%), while the older group had 129 accounts (51%). Visiting frequency was classified into high and less frequency. High frequency had 116 respondent accounts (46%), and less frequency had 135 accounts (54%). In addition, the average time spent was grouped into high and low users, with 61 response accounts for high users (24%), and 190 response accounts for low users (76%)

Table 4. Grouping for multi-group analysis (compiled by authors)

Grouping			
Group A		Group B	
Male	165 cases	Female	86 cases
High Frequency	116 cases	Less Frequency	135 cases
High Users	61 cases	Low Users	190 cases
Young	122 cases	Old	129 cases

The moderation result between the genders indicates that the influence of functional value on recommendation intention was stronger for the males than it was for the females (male, p < 0.001; female, p < 0.001). However, in our tests for the age groups, we proposed that the influence of functional value on recommendation intention was stronger with the older than with the younger participants, which was not accepted, although it was significant (older, p < 0.001; younger, p < 0.001).

Table 5. Online Travel Community Model Summary (compiled by authors)

Variable Relationship	OS (n = 251)	f^2	q^2	Male (n = 165)	Female (n = 86)	Male vs female (t-value)	Young (n = 122)	Old (n = 129)	Young vs old (t-value)
Functional Value -> Recommendation Intention	0.44	0.28	0.12	0.46	0.42	6.966***	0.48	0.40	6.915***
Hedonic Value -> Recommendation Intention	0.36	0.14	0.06	0.34	0.39	6.321***	0.34	0.39	6.67***
Social Value -> Recommendation Intention	0.11	0.02	0.01	0.10	0.15	2.012*	0.12	0.10	2.14*
R2	0.62			**0.61**	**0.61**		**0.68**	**0.56**	

Notes: 0.02–0.15 weak, 0.15–0.35 moderate effect, > 0.35 strong effect
Significant levels *p < 0.05; ***p < 0.001
OS: original sample

Table 6. Online Travel Community Model Summary (continued) (compiled by authors)

Variable Relationship	Fre. (n = 116)	LF (n = 135)	Fre vs LF (t-value)	HU (n = 61)	LU (n = 190)	HU vs LU (t-value)
Functional Value -> Recommendation Intention	0.43	0.45	6.63***	0.69	0.39	6.561***
Hedonic Value -> Recommendation Intention	0.42	0.30	6.444***	0.18	0.39	6.139***
Social Value -> Recommendation Intention	0.11	0.12	1.95	0.09	0.10	2.015*
R2	**0.68**	**0.54**		**0.82**	**0.56**	

Notes: 0.02–0.15 weak, 0.15–0.35 moderate effect, > 0.35 strong effect
Significant levels *p < 0.05; ***p < 0.001
Fr: frequent users; LF: low frequent users; HU: high users; LU: low users

Similarly, we tested for how hedonic and social value influence frequency and duration of visits in relation to recommendation intention (Tables 4, 5 and 6). Our results indicate that the influences of hedonic value on recommendation intention are stronger for frequent visitors than they are for infrequent visitors (frequent visitors, $p < 0.001$; infrequent visitors, $p < 0.001$). By contrast, our assumption that the influences of hedonic value on recommendation intention are stronger with those who spend more time than those who spend less time on OTCs was not supported (more time, $p > 0.05$; less time, $p < 0.001$). Frequent visitors perceive more social value and show stronger recommendation intention than infrequent visitors (frequent visitors, $p > 0.05$; less frequent, $p > 0.05$), while participants who spent more time on an OTC did not perceive social value as strong enough to influence their recommendation intention (more times, $p > 0.05$; fewer times, $p > 0.05$).

Table 7. Online Travel Community Multi-group Analysis Result (compiled by authors)

Variable Relationship	A	B
FV*Male[a] vs Female[b] -> RI	5.35***	4.65***
FV*Older[a] vs Younger[b] -> RI	4.65***	7.37***
HV*Frequent visitors[a] vs Less Frequent Visitors[b] -> RI	5.34***	3.54***
HV*More Times[a] vs Fewer Times[b] -> RI	1.57	6.01***
SV* Frequent visitors[a] vs Less Frequent Visitors[b] -> RI	1.83	1.26
SV* More Times[a] vs Fewer Times[b] -> RI	0.68	1.70

Notes: Significant levels ***$p < 0.001$; FV: Functional Value; HV: Hedonic Value; SV: Social Value
RI: Recommendation Intention

5. Discussion

The objective of this study was to develop and test a model that examines the impact of the customer value framework on recommendation intention and how the perceived value influences different customer segments to recommend OTCs. Three main hypotheses were proposed and tested for the multi-group analyses. The three hypotheses were related to the structural model, while the multi-group analyses examined how different customer segments respond to the customer value framework and its effect on their recommendation intention. Thus, functional value, hedonic value and social value showed positive relationships with recommendation intention. Value is at the fabric of consumers' relationships with service providers and destinations; as such, services or places that are perceived to offer value will ultimately be recommended [12]. Additionally, functional value demonstrated the strongest relationship with recommendation intention compared to social and hedonic value. This finding also corroborates [4, p. 462], who contended that 'the stronger the functional motive, the greater were all the various aspects of participation—frequency of visits, duration of visits, exposure to others' eWOM and contribution to knowledge.' The study also found that, while males were impacted more by functional value to recommend the platform, the relationship between functional value and recommendation intention had less effect on older users than it did on younger users. Similarly, frequent visitors perceived that hedonic value demonstrated a greater effect on recommendation intention than did infrequent visitors. This finding also aligns with extant studies [15], which, in the context of mobile applications, have found that hedonic benefits affect recommendation intention. Finally, the link between social value and recommendation intention was positive for frequent visitors. As argued by [5], individuals with weak social ties will perceive more pleasure in online communities; thus, they will visit online communities more frequently than others.

5.1 Implications

Practically, this study contributes to the OTC literature by developing a model that tests the role of the customer value framework on recommendation intention. Firms spend large sums of money on advertising to recruit new customers annually, even though customer recommendation remains one of the most potent weapons for recruiting new customers [1; 15]. Accordingly, our study makes a novel contribution by explicating how the typologies of the customer value framework influence recommendation intention. Furthermore, the variables of customer characteristics introduce a new perspective to the OTC literature by highlighting how different customer segments perceive the customer value framework and its effect on recommendation intention. Extant studies

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[11; 4] have explained the interrelationships of these variables on general social media. To the best of our knowledge, the current study is the first to test different customer characteristics in the customer value framework regarding recommendation intention.

From a practical perspective, the core contribution of this study is that functional value has the strongest effect on recommendation intention. This implies that OTCs that promote information that facilitate members' travel decisions are likely to receive positive recommendation by members. Additionally, our conceptual framework offers managers and administrators of OTCs critical insights on how existing customers can valorize their platforms by recommending them to non-members. For company-owned OTCs, platform managers, such as hotel OTCs, should regularly post information on various services, particularly newly created ones, such as for cuisine, sporting activities, new luxury cars and fishing trips. OTCs can target specific customer segments. Our findings highlight that younger consumers are more susceptible to these services. Thus, focusing on this customer segment as well as peer influence, which is more dominant among young consumers, will help generate a large following on the platform. Similarly, independent OTCs should encourage the posting of vital information from different hospitality and tourism services to aid members in their travel decisions. To increase social and hedonic value, managers should regularly organise offline activities and embed entertainment and pleasure-fulfilling content on their platforms as well as primarily target frequent visitors.

5.2 Limitations and future research direction

One of the limitations of our study is that certain scales were dropped from the measurements because they could not meet the threshold. This could have implications on our results. In addition, because our sample was obtained from members of MTurk, many of them were motivated to participate in the study due to pecuniary interests. It is likely that a neutral sample could have a different result. Despite these limitations, we believe that our study offers an interesting perspective to managers and extends the OTC literature by introducing the interrelationships between the customer value framework, recommendation intention and customer characteristics.

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V

THE ROLE OF SOURCE CREDIBILITY IN CUSTOMER MOTIVE AND CUSTOMER ENGAGEMENT IN ONLINE TRAVEL COMMUNITY PLATFORMS

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