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Hotel guests' social media acceptance in luxury hotels

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Purpose

This paper aims to propose and test a modified TAM model for the social media networks (SMNs) in the luxury hotel context, integrating satisfaction and continued usage intention, using a mixed method approach. SMNs have revolutionized the way people communicate, search for information, and share experiences. The technology acceptance model is the predominant theory for researching technology acceptance; however, there is a gap in identifying and testing context-specific constructs.

Design/methodology/approach

This paper uses a mixed-method approach. The researchers conducted 16 interviews and 258 questionnaires with luxury hotel guests. Following the collection of data, interviews and questionnaires were analyzed using thematic and partial least square analysis.

Findings

Findings show that accessibility, trust, social influence and perceived benefits influence perceived ease of use and perceived usefulness, which affect attitude and satisfaction and ultimately continued usage intentions. Findings also reveal that enjoyment, although qualitatively proposed, does not influence luxury hotel guests' SMNs continued usage intention.

Practical implications

This study suggests that hotel managers have to concentrate their marketing efforts in enhancing SMN's interaction and increasing the number of positive reviews to retain current customers and acquire new ones. Hotels should also develop effective mobile strategies by adopting mobile social network webs and applications as accessibility becomes more important in today's marketplace.

Originality/value

Former scholars adopted the approach of proposing external dimensions based on previous research; and thus, did not integrate up-to-date and context-specific variables. Therefore, the present paper uses a new approach by exploring SMN-specific dimensions and testing them in the luxury hotel context.

Keywords Social media networks, Technology acceptance, theoretical model, luxury hotel industry

Introduction

The emergence of Web 2.0 has revolutionized the way people communicate, search for information, and share experiences (Minazzi, 2015). This phenomenon has led to an increase in the popularity of social media networks (SMNs), such as Facebook, Twitter, YouTube, Myspace, and Google+ (Leung and Bai, 2013). Minazzi (2015, p. 12) defines SMNs as "websites that allow subscribers to connect and interact with other people ... [which] creates a group of people who share information and content." A majority of consumers gain luxury experiences by living vicariously through consumers who share their stories via SMNs. Taylor et al. (2015, p. 90) found that luxury and budget hotels have distinctively different approaches to the use of SMNs. While budget hotels focus on selling their products, a luxury hotel aims to "to keep its guests satisfied by letting them know that the hotel employees and associates were listening and easily accessible for any help." Therefore, luxury hotels seem to view SMNs as a customer relationship management (CRM) tool rather than a distribution channel (Akbar et al., 2016). In fact, Cervellon and Galipienzo (2015, p. 429) confirmed that SMNs are particularly important for the luxury hotel industry, "where communication is more emotional than informational" and where consumers are more interested in collecting and reviewing information during their decision-making process. Therefore, luxury hotels are strongly dependent on the social and engagement aspects of SMNs, and they do not market their offers on static websites since guests are able to "reflect immediately on their experience" (Cervellon and Galipienzo, 2015, p. 429). However, research on the acceptance of SMNs in the luxury hotel context is scarce.

There are a number of theoretical models that are foundational in the study of the acceptance of latest and established techologies. For instance, a large number of researchers have adopted the Technology Acceptance Model (TAM) in order to identify the acceptance of technological innovations within their field of study (e.g. Ayeh *et al.*, 2013a; Kim *et al.*, 2008b). TAM focuses exclusively on cognition-oriented constructs such as perceived usefulness (PU) and perceived ease of use (PEOU). In addition, Baron *et al.* (2006) questioned the validity of TAM constructs, due to the predominant usage of quantitative measures, since they do not allow the inclusion of consumers' perceptions in regards to technology acceptance. In order to address these concerns, researchers need to integrate transaction-oriented TAM variables into their studies.

Therefore, the present study aims to overcome the limitations of previous research by identifying external dimensions that influence hotel guests' acceptance of SMNs through qualitative interviews, in order to propose a modified TAM for SMNs in the luxury UK hotel context. The researchers tested the proposed model using quantitative methods. There are a number of technology acceptance studies within the social media context that identify external dimensions such as trust, enjoyment, expertise, and task-technology fit (Ayeh et al., 2013b; Kim et al., 2010); however, these external dimension vary from research to research, and none of the studies established a set for the luxury hotel context. In addition, when researching a population that already uses SMNs, the original TAM constructs of intention to use and usage behavior become less relevant, and, therefore; the identification of continued usage intention is more appropriate (Cheng et al., 2015). Furthermore, satisfaction plays an important role in continued usage intentions, so this research aims to significantly improve the current applicability of the TAM within the social media environment rather than rely on non-context specific external dimensions. SMNs play a particularly important role for communication strategies within luxury hotels due to the importance of experiences and focus on SMNs as a CRM channel (Akbar et al., 2016; Cervellon and Galipienzo, 2015). In particular, the aforementioned studies (Cervellon and Galipienzo, 2015; Taylor et al., 2015) confirmed that luxury hotels have distinct social media strategies, and thus, it is essential to examine hotel guests' acceptance within this particular segment to ensure that the right approaches are taken for hotel guests' continued usage intentions.

Literature review

Social media in hotel context

SMNs have revolutionized hotel marketing strategies, changing the way hotel businesses communicate with their consumers, moving towards a more mutually beneficial, personalized, trusted, and transparent approach to relationship building (Minazzi, 2015). Nowadays, customers create value through the distribution of word-of-mouth (WOM), making hotel guests value co-creators and active participants in the value-creation process rather than passive receivers of information (Sigala, 2016). Specifically, SMNs play an import role in travelers' three-step travel planning process: pre-trip, during-trip, and post-trip (Leung *et al.*, 2015).

In the pre-trip step, the use of SMNs contributes to driving travelers' motivation and their acquisition of more extensive information via CGM (Song and Yoo, 2016). Burgess *et al.* (2014) found that SMNs are also important points of reference as they are search engine friendly and appear within the first results of a search, making them first points of access for consumers. Next, in the during-trip step, the role of SMNs includes evaluation of alternatives and purchase decision. SMNs have influenced the consumers' hotel decision-making process (Park and Allen, 2013) with over half of today's hotel guests referring to hotel reviews before booking a hotel room (Taylor *et al.*, 2015). The SMN role of the post-trip step relates to post-behaviors of travelers, for example, sharing travel experiences. Guests' satisfaction is a particularly important part of the post-trip experience as it influences repeat stays and WOM (Berezina *et al.*, 2016). Therefore, hotel businesses cannot maintain a segregated marketing platform but instead should embrace the opportunities of SMNs, providing good experiences that trigger positive feedback that goes viral and reaches a large audience.

In summary, consumers have used SMNs during the whole phase of their travel planning process, and trustworthiness is a key factor in their decision to use information on social media (Leung *et al.*, 2015; Wang *et al.*, 2016). In particular, marketing luxury hotel services is distinct from marketing other products as it involves not only "conveying an image of quality, performance and authenticity, but also . . . attempting to sell an experience by relating it to the lifestyle constructs of consumers" (Atwal and Williams, 2009, p. 338). As a result, SMNs are ideal channels for fostering CRM and transforming brand images as required within the luxury hotel sector (Akbar *et al.*, 2016). As more luxury hotels incorporate SMNs into their marketing strategies, researchers will need to investigate the factors that influence hotel guests' acceptance and continued usage of SMNs.

Application of TAM in hospitality and tourism

Previous research in the marketing field extensively focused on consumers' (Ayeh *et al.*, 2013a; Kim *et al.*, 2008b) and organizations' (Kim *et al.*, 2008a; Venkatesh and Bala, 2008) acceptance of technologies. The TAM predicted that the acceptance of technologies stemmed from two cognitive constructs: PU and PEOU. In addition, the majority of TAM research to date used behavioral intention as a mediating variable and actual system usage as a dependent variable. The actual usage behavior (i.e. accept or reject the technology) remains an important step in the consumer decision process; however, when investigating technologies that are well-developed, continued usage becomes a more appropriate avenue of investigation (Chuttur, 2009). Therefore, according to suggestions made by Sandhu (2008), Choi *et al.*

(2011), and Lin and Lu (2011), this study adopts the continued usage intention, which is particularly valuable when assessing the acceptance of users that already engage with the technology. Adding to this, satisfaction plays an important role in retaining hotel guests to continue to follow SMNs.

Researchers applied the TAM to various industries, including hospitality (Kang *et al.*, 2011; Kim *et al.*, 2010) and SMNs (Ayeh *et al.*, 2013a; Parra-López *et al.*, 2011). Despite these studies, there is a lack of research that suggests relevant external factors affecting user attitudes toward SMNs in a luxury hotel context. Thus, this study considers the identification of context-specific external dimensions critical for ensuring good applicability of TAMs in various research contexts, a gap in the literature identified by Ayeh *et al.* (2013a).

Generally, researchers can identify external variables in TAM based on organizational, social, and individual levels (Monzavi et al., 2013). First, when looking at IT adoption, users are influenced by a variety of organizational factors. Accessibility, one of the key organizational factors, is effective in forming beliefs about system usefulness and ease of use. It refers to physical access to the systems and availability of the user support. Kang et al. (2011) identified the importance of accessibility, stating that attributes such as ease of access, convenience, and availability are of the highest importance for the acceptance of newest technologies. Particularly with the emergence of tablets and smartphones, the convenient accessing of social media networks anytime and anywhere is part of users' daily routines, which links to the concept of mobility.

In regard to social factors, the role of *social influence* in IT adoption has been emphasized from behavioral models in IT acceptance theories. Qin *et al.* (2011) concluded that the importance of social influence as an external dimension of TAM research increased due to the emergence of user-generated media, which includes the sharing of information with virtual communities, hence increases the influence of friends and families in these networks. *Trust*, another social factor, is an important indicator reflecting the quality of interpersonal social relationships (Blau, 1964). In traditional commerce, trust usually refers to the interpersonal trust between consumers and sales providers or websites. However, along with the development of technologies, consumers come to possess mental models that consumers apply to computers (Benbasat and Wang, 2005).

Next, with regards to individual factors, researchers classify personal factors used to predict technology adoption into two broad categories: mutable and dispositional factors. Mutable factors include individual perceptions and emotions, and less mutable dispositional factors include general personality factors, cognitive style, and self-efficacy. Mutable factors, such as PU and PEOU, continue to dominate models of technology acceptance. However, researchers also need to acknowledge other personal factors affecting IT use as important variables. In order to fill this gap, this study considers *enjoyment* as an external dimension of technology acceptance is particularly valuable within the voluntary environment of SMNs, where users spend their leisure time (Lee and Chang, 2011).

Qualitative research methodology

Baron *et al.* (2006, p. 112) emphasized that research has proven traditional TAM constructs as significant within organizational settings; however, "current definitions of the key constructs of TAM can be inadequate for technology-based services where the consumers have co-created value of the service" as it is the case with SMNs. Therefore, Baron *et al.* (2006) pointed out the importance of qualitatively identifying consumers' perceptions in regards to researched technology prior to the actual developing of the TAM model and its

external dimensions. Ayeh *et al.* (2013a) supported Baron *et al.*'s conclusion and their study revealed that SMN research should identify context-specific external dimensions when researching travelers' acceptance of SMNs.

In order to address these recommendations, the present study used a sequential procedure of qualitative interviews to confirm external variables for theory development followed by questionnaires for theory testing and generalizability of findings (Creswell, 2003). The focus of the current research is luxury four and five star properties that use social media networks. Previous research by Israeli *et al.* (2011) categorized four and five star hotels as the luxury hotel sector. According to the "AA Hotel Guide," in 2010, there were 84 five star hotels and 648 four star hotels, 732 "luxury" UK hotels in total. Initially, the researchers contacted all 732 hotels via e-mail to inquire about participation in the study. Out of this large number, 69 hotels responded and showed interest in participating. After follow-up phone conversations, 10 hotels agreed to post the questionnaire on their SMN pages.

Interviews

The purpose of this study is to identify external dimensions to propose and test modified TAM for the SMN in the luxury hotel context. In order to gather in-depth information, the researchers conducted 16 interviews with hotel guests that were active SMN users. The researchers considered the purposive sampling technique to be the most appropriate for the present study. According to Tongco (2007, p. 147), purposive sampling is used to "find people who can and are willing to provide information by virtue of knowledge or experience." In the case of the present study, the participants needed to have experience of social media in the luxury hotel context; therefore they had to select who followed or liked a luxury hotel SMN.

The researchers contacted more than 200 luxury hotel guests via Facebook and Twitter and asked them to participate in interviews. The researchers identified potential participants by noting users who had liked or responded to a SMN on luxury hotel sites. Out of this large number, 16 users agreed to participate, and the 16 interviews were sufficient as data saturation occurred, an outcome that collaborated research results from Guest *et al.* (2006). The interviewer asked interviewees questions regarding factors affecting adoption, acceptance, and continued use of SMNs. The face-to-face interviews took place in March 2012 and consisted of semi-structured questions. In total, the interviewers asked interviewees at least 11 questions including the following: "What are your main reasons to visit luxury four and five star hotels on SMNs?" "Could you think of a reason why someone would not visit luxury hotels on SMNs?" "What do you expect luxury hotels to do on SMNs?" "Do you have any personal concerns in regards to visiting luxury hotels on SMNs?" The current research aims to identify external dimensions; thus, this study uses thematic analysis in order to code interviews according to external dimensions and relevant sub-themes.

Analysis of qualitative research

Within this analysis section, the researchers refer to the interviewees as G1-G16. The interviewees' profiles included eight males and eight females ranging in age from 25 to 54. Their professions ranged from management positions to students and housewives. In total, the researchers found five external dimensions that influenced luxury hotel guests' SMN acceptance.

Theme one – trust

Trust emerged as an important theme within the analysis which concurs with previous research in the area of e-commerce and SMNs (Ayeh *et al.*, 2013a; Hsu and Lin, 2008; Yu *et al.*, 2005). Eleven interviewees (G1-3, G6-9, and G11-14) identified that SMNs enable WOM, and they considered that mode of communication trustworthy since comments and recommendations from previous hotel guests are more reliable than official statements from hotels. G1 commented that, "on social media network sites you have the opportunity to see who is writing good stuff and who is writing bad stuff about it, whereas if you just go to the hotel website you will only get listed the advantages of the hotel without any critical aspects". Nine interviewees (G1, G3, G5-8, G10, and G14-15) demanded that hotels provide transparency on SMNs. G6 and G8 reinforced that hotels often provide ideal pictures of their facilities however, fail to mention that these pictures date back a number of years when the facilities were still new and fresh.

Theme two - social influence

Social influence has been implemented into a large number of TAM research, particularly within more recent e-commerce acceptance studies (Hsu and Lin, 2008; Qin *et al.*, 2011). Nevertheless, during the interviews, only G1, G4 and G12 acknowledged the influence of friends and relatives. G1 argued that "when I see loads of friends follow a hotel on a social network page, I am curious to see what that particular hotel is offering, and sometimes on their pages, you have to click the follow or like button to see the content of the page." Therefore, he reasoned that friends and family influence his SMN behavior. In fact, Lee and Ma (2012) examined that the sharing of updates, notifications and knowledge is primarily done in order to obtain recognition from online friends. Nevertheless, within the context of travelers' mobile service acceptance, Choi *et al.* (2011) concluded that social influence had a strong effect on perceived ease of use and a strong effect on perceived usefulness.

Theme three - perceived benefits

Perceived benefits emerged as an important theme. However, within the acceptance literature, only a few researchers implemented perceived benefits into their TAM (Hsu and Lin, 2008). All interviewees (except G1 & G15) confirmed the importance of special offers and discounts on the hotels' SMN pages. G4 stated his motivation to visit hotels on SMNs saying that, the "main reasons are to find out about discounts and...different things they offer," and G10 added, "I think motivation to use SMNs is finding the best offers and the best value for money maybe and promotions". Baird and Parasnis (2011) confirmed the importance of perceived benefits in their research on consumers' motivations to engage with organizations, which revealed that receiving discounts or coupons ranks among the most important motivation factor among online users. In addition, G10 stated that he expected hotels to "give more personalized information than they usually do on their websites or on other platforms".

Theme four - enjoyment

Interestingly, previous research suggested the importance of the external dimension of enjoyment for the acceptance of e-commerce applications (Ayeh *et al.*, 2013b; Lee *et al.*, 2012; Lin and Lu, 2011). If individuals enjoy the activity that they are participating in, they tend to repeat the activity. In fact, Lin and Lu (2011) concluded that arousal of pleasure is amongst the biggest motivations to engage on SMNs. The interviewed hotel guests acknowledged the applicability of enjoyment with the luxury hotel SMN context, however, only with limited attention. A number of interviewees revealed that pages on SMNs are generally an enjoyable way to spend time "as long as they do not spam you too much" (G9). This idea was confirmed by G8 who revealed that SMNs should be a pleasant platform for

interacting with businesses. The interviewees' perspective is in line with Lee and Ma (2012, p. 333) who suggested that the concept of enjoyment within SMNs is particularly applicable as users are often "involved in discussing, gossiping, and making fun of persons and issues that were reported [which helps] users find release from stress in their daily life".

Theme five – accessibility

Accessibility emerged as theme throughout the interviews (G1-2, G5-6, G8-11, and G14-15). Particularly, considering the increased usage of smartphones and tablets, researchers need to consider the accessibility and mobility aspect of social media networks (Lopez-Nicolas *et al.*, 2008). G5 pointed out, "checking my Facebook account every day and having my updates directly sent to my mobile with push notifications and all ... it's easy." G1 also added that, "promotions on the Facebook site is more accessible than if I have to go to the website." Burgess *et al.* (2009) focused on travelers' perception in regards to consumer-generated media and identified that concepts relating to accessibility impact travelers' decision to use SMNs. In addition, Burgess *et al.* (2009) emphasized the importance of integrating accessibility into future SMN acceptance research, as the rapid development of mobile devices in every form (e.g. wearables) makes mobility and accessibility for the acceptance of new innovations ever more important (tom Dieck and Jung, 2015).

Proposed model

The results of the thematic analysis of the interviews revealed that there are five external dimensions of luxury hotel guests.

Trust and perceived usefulness and perceived ease of use

Through the interviews, the researchers identified trust as an important external dimension. In previous TAM studies, a number of researchers supported the strong effect of trust on perceived usefulness (Ha and Stoel, 2009) and perceived ease of use (Pavlou, 2003). The traditional definition of 'trust' in TAM was the interpersonal trust between consumers and sales providers or websites. However, the researchers inferred a different meaning of 'trust' from the interview description analysis, which confirmed that the concept of trust had extended to user-user and online recommendation agents (Benbasat and Wang, 2005). Therefore, the researchers concluded, after the qualitative interview process, that the 'trust' concept in luxury hotels with SMNs was not the same as the traditional offline trust concept. In SMNs, trust in any close relationship is one of the most desirable external factors that influences users' behaviors. Considering the importance of trust in previous research and the present study, this research proposes the following two hypotheses:

H1: Trust will positively influence Perceived Usefulness.

H2: Trust will positively influence Perceived Ease of Use.

Social influence and perceived usefulness and perceived ease of use

Secondly, social influence appeared as an external dimension throughout the interviews. The most representative concept of social influence is subjective norm. In social media usage for luxury hotels, qualitative research reveals that the impact of subjective norm and visibility on consumer attitude is noteworthy. Based on the interview findings, within the present UK luxury hotel context, social influence is defined as the effect friends, family, and peer hotel guests have on the decision to follow and engage with a luxury hotel online. Considering the importance of social influence on the perceived usefulness and perceived ease of use in previous TAM studies (Choi *et al.*, 2011; Hsu and Lin, 2008; Qin *et al.*, 2011; Wu, 2009; Yu

et al., 2005) and the importance for interviewees of the social influence construct, the present study suggests the following two hypotheses:

H3: Social Influence will positively influence Perceived Usefulness.

H4: Social Influence will positively influence Perceived Ease of Use.

Perceived benefits and perceived usefulness and perceived ease of use

Overall, the interviewees, in agreement with previous research (Hsu and Lin, 2008), revealed and verified the high importance of users' perceived benefits for users' continued technology usage intentions. Previous TAM research has not acknowledged the effect of perceived benefits on perceived usefulness and perceived ease of use. Parra-Lopez *et al.* (2011), for instance, suggested and supported a direct effect of perceived benefits on the intention to use SMNs. Within the luxury SMN hotel context, perceived benefits is associated with special offers, deals, or information hotel guests only receive when engaging with the hotel online. Therefore, the present study proposes the following two hypotheses:

H5: Perceived Benefits will positively influence Perceived Usefulness.

H6: Perceived Benefits will positively influence Perceived Ease of Use.

Perceived enjoyment and perceived usefulness and perceived ease of use

Interviewees and scholars alike (Ayeh *et al.*, 2013b; Lee *et al.*, 2012; Paris *et al.*, 2010) supported the importance of enjoyment in technology acceptance research. Venkatesh and Bala (2008) strengthened the importance of the effect of enjoyment on perceived ease of use when they added the effects of enjoyment to the latest TAM development, the TAM3. Both the literature (Ayeh *et al.*, 2013b; Ha and Stoel, 2009; Venkatesh, 2000; Venkatesh and Bala, 2008) and interviewees confirmed the importance of enjoyment on perceived usefulness and perceived ease of use of SMNs. Enjoyment is defined as a pleasant, pleasurable, and enjoyable engagement on SMNs with luxury hotels; therefore, this study proposes hypotheses 7 and 8:

H7: Enjoyment will positively influence Perceived Usefulness.

H8: Enjoyment will positively influence Perceived Ease of Use.

Accessibility and perceived usefulness and perceived ease of use

Park *et al.* (2012) included the concept of system accessibility in their modified TAM research and confirmed the effect on PU and PEOU. Although there is only limited evidence in previous research on the influence of accessibility and the concept of mobility on perceived usefulness and perceived ease of use, the interviews show the importance of the construct. This study defines accessibility as the concept of accessing luxury hotels' SMN pages and engaging with content anywhere and anytime. Therefore, the researchers propose hypotheses 9 and 10:

H9: Accessibility will positively influence Perceived Usefulness.

H10: Accessibility will positively influence Perceived Ease of Use.

Perceived ease of use, perceived usefulness, attitude and satisfaction

Within the original TAM, perceived usefulness and perceived ease of use affected the attitude on using a technological innovation. PU and PEOU are still significant mediating variables according to a recent study by Abdullah and Ward (2016), where they developed a modified TAM and included the paths from PEOU and PU to attitude. Within the context of the

present study, the researchers evaluated continued usage and satisfaction, which are important indicators, along with attitude towards future loyalty. Therefore, this study proposes the following hypotheses:

H11: PEOU will positively influence PU.

H12: PU will positively influence Attitude towards Using.

H13: PU will positively influence Satisfaction.

H14: PEOU will positively influence Attitude towards Using.

H15: PEOU will positively influence Satisfaction.

Attitude, satisfaction and continued usage

TAM research and a new research stream have proven that attitude is a mediating variable. Scholars have confirmed the significant effect of attitude on satisfaction in various online contexts (Huang 2008). For example, Ranjan et al. (2015) conducted a meta-analysis of studies on service interaction quality and found strong support for the positive path of attitude towards satisfaction in the thirty reviewed studies. Therefore, this study proposes hypothesis 16:

H16: Attitude towards using will positively influence Satisfaction

The vast majority of modified TAM studies have included attitude as a part of the mediating variable towards intention (e.g. Absullah and Ward, 2016; YeeSum, 2016). Therefore, the researchers propose hypothesis 17:

H17: Attitude towards Using will positively influence Continued Usage

Satisfaction is an important indicator of technology acceptance and future usage intentions (Wixom and Todd, 2005). Therefore, it is important to not only assess the effect of attitude on technology acceptance, but to include satisfaction in TAM research, if the acceptance of an already used and experienced technology is evaluated. Thus, the proposed modified TAM for the SMNs in the luxury hotel context suggests that satisfaction has a positive effect on continued usage. Therefore, this study proposes hypothesis 18:

H18: Satisfaction will positively influence Continued Usage

Figure 1 presents the proposed modified TAM for the SMN in the luxury hotel context, which is based on the TAM (Davis, 1989); however, it incorporates the dependent variable of continued usage (Choi *et al.*, 2011; Lin and Lu, 2011), as suggested by Chuttur (2009), in order to account for a reflective dimension.

Please insert Figure 1 about here

Quantitative research methodology

Measurements

As a next step, this research aimed to empirically test the modified TAM using questionnaires from luxury hotel guests' who liked hotels on SMNs. The questionnaire contained two sections. The first section of the questionnaire contained questions regarding sample

characteristics. The second section focused on the five external variables, measured by four to seven measurement items and confirmed by previous research, namely, trust (Hsu and Lin, 2008; Kim, 2009), accessibility (Lopez-Nicolas *et al.*, 2008; Wixom and Todd, 2005), perceived benefits (Hsu and Lin 2008), enjoyment (Venkatesh and Bala, 2008; Wu and Liu 2007), and social influence (Lopez-Nicolas *et al.*, 2008). The mediating variables were perceived ease of use (Sánchez and Hueros, 2010), perceived usefulness (Sánchez and Hueros, 2010), attitude (Teo, 2010; Wixom and Todd, 2005), and satisfaction (Wixom and Todd, 2005). Continued usage was the exogenous variable (Sanchez and Hueros, 2010). The researchers developed a final questionnaire where all the items employed a five point Likert-scale with 1 being "strongly disagree," 3 being "neutral," and 5 being "strongly agree."

Data collection

From May 15 to September 18, 2013, the researchers posted the online link to the questionnaire on the Facebook and Twitter pages of 4 and 5 star independent and chain hotels, resulting in 258 usable responses from domestic hotel guests in the UK. The majority of respondents (73.3%) were female. The respondents were distributed across all ages, with the majority being between 25 and 54. In terms of highest qualification, there was a fair representation of all degrees, those with undergraduate degree representing the highest percentage (29.5%). The majority of respondents were either married (46.5%) or single (43.4%). In addition, 51.2% of respondents had been employed full time. Regarding SMN experiences, the majority of respondents (65.5%) had more than three year experience in using SMNs. In contrast, the years of experience in following hotels on SMNs were equally distributed ranging from less than six months (26.0%) to more than three years (15.1%).

Quantitative research results

The researchers conducted an exploratory factor analysis to test the main constructs' factor structure and respective internal reliability. For the confirmation of the measurement model, they applied the partial least square (PLS) technique using SmartPLS 2.0 (M3) Beta software (Ringle et al., 2005). PLS is a well-established technique for estimating path coefficients in structural models and has been widely used in various research studies (Ali et al., 2016). The PLS technique has become increasingly popular in marketing and in management research in the last decade because it can model latent constructs under conditions of non-normality using small to medium sample sizes (Hair et al., 2011). The rule of thumb for the required sample size to conduct traditional SEM (CB-SEM) is having at least 5 respondents per indicator in the measurement model (Peng and Lai, 2012). The sample size for this study is 258, which is lower than the required minimum sample size of 315, justifying the usage of PLS-SEM. In addition, analyzing the skewness and kurtosis values for all of the measurement items also indicates that assumptions of normality were partially violated for the dataset, further strengthening the usage of PLS-SEM. Moreover, PLS is also considered useful for complex and predictive models and has been commonly adopted in previous TAM research as it requires a smaller sample size to draw reliable conclusions with a recommended sample of at least 200 (Venkatesh and Bala, 2008).

Exploratory factor analysis

The researchers conducted an exploratory factor analysis to discover the factor structure of the main constructs related to hotel guests' social media acceptance in luxury hotels, and to apply the categorized factors to the subsequent structural equations modeling analysis. These constructs include trust, enjoyment, accessibility, benefits, social influence, attitude, satisfaction, PEOU, PU and continued usage, and they derived from the previous literature review, as well as the qualitative phase of this study. The researchers also analyzed 52 items

related to the constructs using the principal component method and varimax rotation procedure. The most common and reliable criterion was the eigenvalue in extracting factors, and the researchers retained 10 factors with eigenvalues greater than 1. In addition, all items had a factor loading above 0.5; therefore, the researchers included all of the items. Table 1 shows the results of the exploratory factor analysis. To test the appropriateness of factor analysis, this study used two measurements. The Kaiser–Meyer–Olkin (KMO) overall measure of sampling adequacy (MSA) was 0.932, which falls within the acceptable level. In addition, the Bartlett's test of sphericity was 11709.873, significant at p=.000 which showed a significant correlation among the variables. Hence, for this study, the 10 factor structure was retained.

Please insert Table 1 about here

Unidimensionality assessment

Hutchinson *et al.* (2009) suggested a confirming of the validity of the measurement model by identifying factor loadings and average variance extracted. Table 2 provides an overview of the confirmatory factor analysis on all the factors and their respective items derived from exploratory factor analysis. Overall, the majority of measurement items had values well above 0.7 which is the accepted threshold. Nevertheless, there are three measurement items (BEN4, TR2 and TR3) which resulted in lower scores. Hulland (1999) revealed that these measurement items should be reviewed with caution, however not automatically be dropped from the data set as long as they are not below 0.5. As this is not the case, the measurement items remained within the sample. Also, the composite reliability results were overly high and satisfactory (above 0.7) and the AVE values were above the cut off value of 0.5 (Hair, 2011). Table 3 presents the inter-construct correlations and the square root of the AVE values. All square-roots of AVE were higher than the inter construct correlations. Additionally, the values of MSV and ASV are less than AVE. Therefore, the discriminant validity of a measurement model was confirmed.

As per Chin *et al.* (2008), researchers can effectively use Q² as a criterion for predictive relevance. Based on the blindfolding procedure, Q² evaluates the predictive validity of a complex model by omitting data for a given block of indicators and then predicts the omitted part based on the calculated parameters. Thus, Q² shows how well researchers can reconstruct the empirically collected data with the help of the model and the PLS parameters (Ali *et al.*, 2016). For this study, the researchers obtained Q² for endogenous variables using cross-validated redundancy procedures. A Q² greater than 0 means that the model has predictive relevance, whereas Q² less than 0 means that the model lacks predictive relevance. Q² for perceived usefulness, perceived ease of use, attitude, satisfaction, and continued usage are 0.034, 0.129, 0.216, 0.038, and 0.158 respectively, indicating acceptable predictive relevance.

Please insert Table 2 about here

Please insert Table 3 about here

Hypotheses testing

Table 4 and Figure 2 provide an overview of the structural model test. In particular, the original and slightly adopted TAM paths (H11, H12, H14, H15, H17, and H18) were supported at the highest confidence level (p<0.01), which corresponds with previous research

in the area of social media acceptance (Ayeh *et al.*, 2013b). In addition, the paths between accessibility and PEOU, trust and PEOU, as well as social influence and PU accounted for strong relationships with high coefficients and T-values at p<0.01. The paths between PU and satisfaction, perceived benefits and PEOU, and accessibility and PU were confirmed at a confidence level of p<0.05.

In total, six hypotheses (H1, H4, H5, H7, H8 and H16) involving the paths of trust to PU; social influence to PEOU, perceived benefits to PU, enjoyment to PU, and enjoyment to PEOU, attitude to satisfaction were not supported. Together, satisfaction and attitude explained 48.6% of the variation in continued usage. Further, PEOU and PU explained 45.5% of the variation in attitude. In addition, PU and PEOU explained 45.6% of the variation in satisfaction. Finally, 57.7% of the variation in PU and 63.7% of the variation in PEOU were explained by the external variables of social influence, accessibility, enjoyment, trust and perceived benefits.

Please insert Table 4 about here

Please insert Figure 2 about here

Discussion and conclusions

Conclusion

The aim of this study was to propose and test the modified TAM for the SMN in the luxury hotel context, integrating satisfaction and continued usage intention. Through the thematic analysis of sixteen semi-structured interviews, the research identified five external dimensions that influence luxury hotel guests' acceptance of SMNs, namely, social influence, enjoyment, accessibility, perceived benefits, and trust. As presented in the literature review, the external dimensions, such as trust, enjoyment, and perceived benefits, have already been implemented and validated in previous SMN acceptance research (Ayeh *et al.*, 2013a; Lee *et al.*, 2012; Paris *et al.*, 2010; Parra-López *et al.*, 2011). Also, the external dimension of social influence has commonly been integrated into TAM research in other areas, for example, the acceptance of online blogs (Hsu and Lin, 2008) or instant messaging (Lu *et al.*, 2009); however, within the hospitality industry, previous SMN acceptance research has not implemented social influence. Furthermore, previous social media acceptance studies have not adopted accessibility, which links to the concept of accessing information anywhere and anytime, but it is an external dimension that emerged from the interviews.

There are a number of interesting findings within the current research. For example, accessibility had a strong effect on PEOU. Lopez-Nicolas *et al.* (2008) revealed that the possibility of accessing information anywhere and anytime on SMNs is particularly important for the hotel industry, as potential guests can access information while travelling, thus they have the ability to make last-minute decisions. In addition, travelers can access information from hotels' recreational facilities while visiting a destination; therefore, hotels have the ability to attain additional business. Through improvements in accessibility, for instance, with investments in mobile applications, hotels can increase the customers' ease of getting in contact with hotels and, ultimately, their attitude and satisfaction to continuously using SMNs to engage with hotels (Kim *et al.*, 2014). As Kim *et al.* (2014, p. 418) articulated, hotel guests "now expect the right to use [mobile] devices wherever and whenever they want".

Accessibility was the strongest determinant of perceived ease of use. This outcome is considered one of the main contributions of the present study, especially considering that accessibility as an external variable only received limited attention from previous acceptance researchers (Kang *et al.*, 2011). Overall, this outcome shows the importance of the mobility and accessibility aspect of social networks in today's emerging tablets and smartphone market that enables the convenient access of SMNs (Leue *et al.*, 2014).

Interestingly, enjoyment did not predict SMN acceptance within the luxury hotel context even though Wu (2009) stressed the importance of enjoyment within the voluntary environment of SMNs. Considering the results from the interviews of this study, most respondents were adults with respected social status, married, and employed with earnings above the average income level. This group of respondents did not have enough time to spend on SMNs for enjoyment or other hedonic purposes. Instead, they used SMNs to collect information for utilitarian purposes, such as price and type of available hotel facilities.

Ayeh *et al.* (2013a) revealed that particularly within the intangible hotel industry, trustworthiness is of the highest importance due to uncertainties involved when purchasing services. The present study supported the relevance of the trust construct in SMN acceptance research and confirmed the relationship of trust towards PEOU at the highest confidence level. This finding shows the importance of WOM and trustworthy content for hotel guests' perceived ease of using hotel pages on SMNs. In addition, through qualitative research for social media usage for luxury hotels, this study finds that consumers significantly perceive trust for servicescape, such as luxury hotel facilities, than for the hotels' transactional obligations. For example, as luxury hotels always provide ideal pictures on their websites, consumers tend to trust social media comments and contents more. Nevertheless, the path towards PU was not supported. This result shows that trust does not drive the perception of usefulness of SMN pages; an outcome that contradicts Ayeh *et al.* (2013a).

Theoretical implications

This study made three major contributions to knowledge. Firstly, it identified context-specific variables in the context of luxury hotels through qualitative interviews and then validated the proposed theory through quantitative questionnaires thus, confirming the five external variables social influence, accessibility, trust, enjoyment, and perceived benefits. Secondly, it added satisfactions as an antecedent of continued usage as part of a modified TAM model. Finally, it included continued usage, which is a contribution to knowledge as it extends existing TAM research with a new reflective dimension. Certain external variables, such as accessibility, only received limited attention in previous research and were solely included in this research due to findings from the interviews. Therefore, the researchers believe that using a mixed-method approach strengthened this study as it allowed the researchers to incorporate new factors important to the luxury hotel context. Furthermore, previous constructs such as trust or social influence have existed for a long period of time in TAM research, and researchers often tailored the measurement items based on previous studies. The present study used a new approach where the researchers identified the constructs, although existing in previous research, for the luxury hotel construct, based on actual guest perceptions, and as a result, developed the measurement items according to the interview findings. This made the measurement items applicable to the luxury hotel context, strengthening this modified TAM research.

Practical implications

There are a number of managerial implications on the application of the modified TAM to SMN strategies in the luxury hotel sector. The interviewed hotel guests revealed the power of WOM on SMNs, identifying that they considered reviews and recommendations from other users as trustworthy (Burgess *et al.*, 2009). Therefore, hotels have to encourage hotel guests to leave positive reviews in order to capitalize on this opportunity. Cervellon and Galipienzo (2015) identified that guests are interested in collecting and reviewing information, and luxury hotels are strongly dependent on the social and engagement aspects of SMNs. The qualitative and quantitative data analysis confirmed this overall notion. Therefore, one of the main strategies for UK luxury hotel managers should be to focus on SMNs' interaction for retaining existing guests and attracting new ones.

Another implication of this study for the hotel industry is the need for constant updates and notifications. SMN users expect to receive the newest information, special offers, and rewards for visiting pages on SMNs. Another important implication is the increased importance of mobile devices, such as smartphones, tablets, and tabs, for social networking sites. Having mobile enabled websites and reaching hotel guests while travelling becomes increasingly important as the trend towards mobile bookings of travel related products, as well as last minute booking decisions, steadily grows (Fensel *et al.*, 2013). The test results show that the impact of perceived benefit on PU and PEOU is significant. These results mean that luxury hotel consumers are still more interested in perceived benefits than enjoyment. Therefore, luxury hotels need to develop a useful alternative promotional social media channel for satisfying consumers' utilitarian values. The key element of recent alternative channels is to allow consumers to participate in the decision making process.

Limitations and future research

There are a number of limitations with the current research. First of all, one can argue that there are limitations associated with the sample size, so, consequently, the findings of the 16 interviewed hotel guests cannot be considered representative of the entire population; however, the researchers believe that the findings are rich and informative because after analyzing 16 interviews, no new themes emerged. Therefore, the study reached data saturation; this conclusion is in line with research by Guest *et al.* (2006). As with all qualitative analysis techniques, another possible limitation is the bias in analyzing interviews. However, the use of a predefined thematic codebook reduced the risk of a researcher-biased analysis.

A number of hotels posted the questionnaire on their Facebook and Twitter pages; thus one can question the applicability of the results to the acceptance of other networks, such as the business-related LinkedIn network. Therefore, future research could test the modified TAM within other networks to identify the applicability in different contexts. Furthermore, the characteristics of SMNs are changing constantly, so it is important for future research to update external variables based on newest developments within the online landscape. The current research has shown that accessibility is an important determinant of SMN acceptance within the luxury hotel industry. Nevertheless, no previous hospitality related research has integrated the construct of accessibility into their TAM research and therefore, it is particularly important for future research to acknowledge and adapt to newest developments, thus to ensure the real life applicability of SMN acceptance research. Finally, future research could examine the moderating effect of factors, such as experience, gender or age on the SMN acceptance behavior in order to increase the explanatory power of TAM studies through the assessment of situational differences.

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