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The Impact of E-service Quality on the Customer Satisfaction and Consumer Engagement Behaviors Toward Luxury Hotels

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ABSTRACT

Research background: Website quality of luxury hotels (from 4-star to 5-star ranking) is a vital role to attract customer's first impression, satisfaction, engagement behaviors, and loyalty intentions.

Purpose of the article: the study aims to increase the number online bookers by boosting the level of customer satisfaction and customer engagement behaviors (CEBs) on e-service of up-scale hotel websites in Vietnam. Moreover, this study examines whether mediation relationships between website quality, customer satisfaction, and CEBs.

Methods: the 332 online bookers fulfilled the survey via online and offline approaches. The PLS-SEM analysis applied to measure the relationship of the constructs.

Findings: The study confirms that website service quality contributes to customer satisfaction, then influences their CEBs and brand loyalty. Additionally, customer satisfaction acts as a partial mediation on the relationships between hotel website service quality and CEBs in the hotel industry.

Originality/Value added: besides the results of the new insights of hotel website studies, this research is one of the pioneering studies concentrating on the impact of consumer engagement behaviors on its site, satisfaction and loyalty intention in the hotel and tourism industry. The study supports the business of e-commerce and operation of hotel/tourism service, marketing and research.

Introduction

Following the progress of online markets, hotel and tourism industries have quickly transformed the e-commerce from the goal of understanding the market to influencing the customers' choices by advanced information technology. Through integrating the business processes and anticipating consumer engagement behaviors, then responding quickly to the market targeted

to exploit opportunities that present brand names. Three out of four billion users around the world access the internet on mobile devices to associate with social media monthly (McDonald, 2018). The progress in website evaluation has analyzed the practitioners and researchers to have forward works (Law, Qi, & Buhalis, 2010). Because of the integration of hotels, the travel and tourism market has been adopted internet such a significant role (Collins, 2013), which obtains its side-effects on business. This study is conducted to stimulate purchase intention, engagement behaviors and satisfaction levels of online users toward the context of hotel and tourism service (Amaro & Duarte, 2015). Practically, the online revenue of travel booking segment in 2018 earned US$345,567mil, in which hotel revenue got to US $142,013m (Statista, 2018). Partly under the hotel context in Vietnam, hotel rooms earned US$493mil out of US$671mil (Statistica, 2018) and 48% of online users search for hotel destinations (Vietnamnews, 2017). Accordingly, the online channel becomes effective communication with its customers (Díaz & Koutra, 2013). Nevertheless, commercial transactions are not only convenient, economic cost, and product diversity (Yoon, 2002) but also influenced by perceived value and trust (Ponte, Carvajal, & Rodriguez, 2015). Furthermore, the principal characteristics of website quality impact customer satisfaction, purchase intention and behavior (Hsu, Chang, & Chen, 2012). Especially, the hotels are from 4-star to 5-star ranking will perform better than lower star rating hotels (Leung, Law, & Lee, 2016).

One of the most significant online contacts between customers and hoteliers is the hotel website. It was the emergence ITs and innovative management method of hotel service quality to fill the interconnection gaps in the social media channel to improve its competitiveness (Buhalis, 1998). The information, interface, and trustworthy facts and details (Ahmad & Sun, 2018) showed on the hotel website and social media can influence online bookers (Ferguson, 2014) and direct customer decision making (Martín & Herrero, 2012). In the long run, the hotel website's interactivity could motivate users to reload the hotel website (Abdullah, Jayaraman, & Kamal, 2016). Regarding from different types of hotels (i.e. international tourist hotels, ordinary hotels, 4-star and 5-star hotels) the content of websites directly has influenced customer preferences and decisions (Ting, Kuo, & Li, 2012). Therefore, hotel and travel suppliers could rely on this 'must-have' distribution channel to reach the customer and sell products without paying commission for third parties such as online travel agencies and travel companies (Ling, Dong, Guo, & Liang, 2015). In addition, the e-service quality strongly impacts on customer satisfaction and loyalty as a capable predictor (Ho & Lee, 2007). In return for online commerce, customers got lower prices and time savings (Vincent, 2003). Furthermore, social media could afford for customer engagement in tourism (Cabiddu, Carlo, & Piccoli, 2014). The customer engagement enhanced customers' service, especially brand loyalty

(So, King, Sparks, & Wang, 2014) for both hotel and airline customers (So, King, & Sparks, 2012). Customer engagement in luxury hotels in India contributes to higher hotel customer loyalty (Rather & Sharma, 2017). However, there were numerous barriers towards successfully engaging consumers, technology and strategic cases (Chathoth et al., 2014) in both tourism and non-tourism contexts (Harrigan, Evers, Miles, & Daly, 2017). The customer engagement effects directly on tourists' satisfaction and loyalty in Malaysia (Rasoolimanesh, Md Noor, Schuberth, & Jaafar, 2019). Besides, Fishbein and Ajzen (1970) explored the Theory of Reasoned Action (TRA) for correlation between behaviors and attitudes within human actions and TRA has been redefined antecedents of unit brand loyalty to confirm that consumers are brand loyal when behaviors and attitudes are attached (Ha, 1998). The finding is inclined with this study, but they likely propose models to take advantages of understanding customer intentions to purchase travel online. Despite numerous previous researches into inherent hotel website quality, there is a lack of study of the correlation between customer satisfaction and consumer engagement behaviors (CEBs) for loyalty in a competitive positioning to adopting such an approach in the context of the Vietnam tourism market from 4-star to 5-star hotels.

Hence, regarding the preceding discussion, understanding the effect of website quality' attributes is in need to enhance levels of customer satisfaction, engagement behaviors and loyalty to the brand. The findings will help online travel suppliers to better understanding luxury hotel users' behaviors. Getting to know the driving force effect website quality to satisfy and engage customers or into convert lookers to buyers and repeated guests on the online platform of luxury hotels. The remained content is made in the following ways: reviewing of literature, collecting data via online and offline approaches, examining data analysis by PLS-SEM, presenting results and discussion, proposing implication and further research

Literature review

The links of e-service quality of hotel website with customer satisfaction, CEBs and brand loyalty

According to Li, Peng, Jiang, and Law (2017), the hotel website is defined such e-service quality by online lookers and investigated its factors; and is perhaps one of the important way to communicate with its customers in the online platform (Chen & Dhillon, 2003) especially at the pre-purchase phase. The overall performance of a website service is evaluated by online users, named hotel website quality (Aladwani & Palvia, 2002). Good quality is essential for the service standard of the hotel (Li, Ye, & Law, 2013). The concept of e-service in "website quality" is mentioned in different industries

and positively influences the marketing performance and e-service (Liu, Arnett, & Litecky, 2000).

The price presentation on the OTAs site and hotel website approach are likely the same (Noone & Mattila, 2009). A website provides venue' information for lookers (Jeong, Oh, & Gregoire, 2003) with its vital functionality (Ip, Law, & Lee, 2012) for room booking details (Ma, Law, & Ye, 2008). For example, a hotel website is such a mass media channel (Schmidt, Cantallops, & Santos, 2008), a first touch with customers (Jiang, Wang, Tan, & Yu, 2016). Moreover, it has a positive influence on customer satisfaction (Bai, Law, & Wen, 2008) in order to satisfy customers' needs (Loiacono, Watson, & Goodhue, 2002), to encourage customer for next visit on hotel website (Abdullah et al., 2016) and to put effective management together in the online business (Bauer, Hammerschmidt, & Falk, 2005). However, the customers' benefits and requirements have not been fulfilled to highlight the crucial role of the website in the hotel and tourism business (Law & Leung, 2000). Some websites ignore their interactivities with customers before the sale transaction (Schmidt et al., 2008). From among the hotel users' perspective, the content-rich and user-friendly websites have no significant difference (Hsu & Cathy, 2005). The content is King. To what extent the hotel describes rooms or rate plans would help guests make the decision. For instance, (1) the description of room is able to provide the lookers with the built-up, maximum number of guests, bed configuration, extra bed options, the window view or balcony; (2) the detail of rate plans can boost customer to book the room due to its benefits of selection; and (3) there are 77% of consumer booking decisions being influenced by available amenities (TripAdvisor). In other words, the content of the website could set the hotel apart from its competition, in turn, affects on levels of lookers' engagement, satisfaction, and loyalty (Rasoolimanesh et al., 2019).

Furthermore, within the stimulus-organism-response paradigm, the authors argued that the website quality dimension is described by customers as less likely important compared to a website brand (Chang & Chen, 2008). The hotel website needs to build a trusting relationship with the customer (Wang, Lawa, Guillet, Hung, & Fong, 2015). Consequently, promoting online purchases will soon be an issue that is the core function of a hotel website (Hung, 2017). The study of a convenience sample of 50 university students across two developed (USA and Australia) and two developing economies (India and China) examined the different types of CEBs toward service. The researchers show that service providers need to treat customers fairly to heighten positive CEBs (Roy, Balaji, Soutar, Lassar, & Roy, 2018a). However, previous work has failed to address the contribution of customer cognition of website service quality in improving the levels of customer satisfaction and especially CEBs.

The dynamic perspective of online users can lead the right track of the hotel website. Jiang et al. (2016) said that how customers define website

quality could impact their behaviors due to the first interaction with website service. The customer perception here may be made up with various dimensions by users (Hsu & Cathy, 2005) included opinions and sentiment (Li et al., 2013), and service demands from the study of Liu et al. (2013). Overall, the features and elements of a website could classify its performance (Musante, Bojanic, & Zhang, 2009). However, some hotel websites only served searchers such a reservation channel (Ma et al., 2008), lack of personalized interaction and ways of account payment online (Chang & Chen, 2008) which indirectly influenced behavioral consequences of customer satisfaction (Belanche, 2012). Because of the higher hotel star rating, the higher the customer expectation for website performance (Salavati & Hashim, 2015). Consequently, the neglected area in the field of this study will be tapped to explore the causal effect of perceived e-service quality on CEBs.

A website needs to maintain effective and efficient information and interface. Especially Information communication technology (ICT) is used in the tourism industry for online transactions (Kim M. J., 2011). It is such one of the mixed motives for joining the global business: a desire to make use of ICT, but also a desire to decrease uncertainty expectation. There is prevalent growth in shopping tourism products/services online, named online travel agencies (OTAs) such as Agoda, Expedia, Travelocity, and Orbitz (Chen, 2006). The OTAs maintained powerful marketing and operational tool for the internet to enhance extraordinary chances to sell products for the hotel and tourism business (Amaro & Duarte, 2015) and bridge the gap of distribution channels between suppliers and consumers (Ponte et al., 2015).

The web design features are important for online relationship marketing (Bilgihan & Bujisic, 2014). Because a hotel website quality is information quality (Jeong et al., 2003) with its crucial role (Ip et al., 2012) like a reservation information (Ma et al., 2008), a mass media channel (Schmidt et al., 2008) to enhance social identification and social exchange to build customer loyalty (Rather & Hollebeek, 2019). However, these sites decrease the access of users to reach a hotel website. Whenever lookers search for accommodation service or particular hotel address, the Metasearch engine (e.g. Google, MSN Search, Yahoo, etc.) can list the ads and OTAs sites on the first page, except the users key in the right hotel website address. So hotels depend on OTAs channel to spread information at first and put services on the market. Hotel website must develop its site' functionality (Bauer et al., 2005), creativity (Bevanda, Grzinic, & Cervar, 2008), enjoyment and ease of use (Hasanov & Khalid, 2015), privacy, security and accessibility (Dolatabadi & Pool, 2013).

Those attempts have seen such a competitive advantage in the e-commerce industry for customers' experiences (Zeng, Proctor, & Salvendy, 2012) and satisfaction positively (Bai et al., 2008). Grant Thornton reported that 67.3% of the hotels in Vietnam in 2015 integrated digital technology to online service

and mobile devices. So there should be balance the service and information technology of the website (Nath & Singh, 2010). Nevertheless, online users on up-scale hotel markets expect to use a website system without effort (Davis, Bagozzi, & Warshaw, 1989). Otherwise, they found distrust information and dissatisfy the service providers (Chathoth, 2007), unfriendly interface (Pranic´ı, 2014); or ineffective management (Hsieh, 2012). Consequently, the information on hotel booking sites has been an imperative consideration for online users (Gavilan, Avello, & Navarro, 2018). Therefore, an online presence is a vital role to optimize its website quality to maximize benefits for customers and suppliers.

What makes a long relationship between buyers and sellers? Perhaps it is to trust each other. Especially in the online platform, trust is countable for reliability and dependability (Everard & Galletta, 2014) in the individual perspective of CEBs (Roy et al., 2018a). Corritore, Kracher, and Wiedenbeck (2003) mentioned that e-trust is a confident expectation of one's attitude and willingness without online risks to appreciate the level of confidence in its partner's cooperative behavior. It is therefore necessary to look at them in the management and to be successful relationship marketing toward commitment and trust, even though it was considered as risk-taking behavior and its consequences (Mukherjee, Nath, & Arnott, 2007) directly positively affect room booking online by Li et al. (2017) and loyalty from study of Ribbink, Riel, Liljander, and Streukens (2004). Trust could build long-term relationships with customers in the service industry and from then on direct customers' attention to repurchase service on a hotel website (Abdullah et al., 2016). However, some viewers did distrust comments and information via website (Ahmad & Sun, 2018) or hesitate to buy service if they feel risky or uncertainty (McKnight, Choudhury, & Kacmar, 2002). Lien, Wen, Huang, and Wu (2015) preferred to book rooms on OTA channels such as Agoda, Booking, TripAdvisor, etc. because of its convenience and quality assurance (Rahimnia, 2013). So, the future of e-commerce may depend on trust (Wang & Emurian, 2005). Nevertheless, some researchers believed that trust has a positive influence on purchase travel online (Amaro & Duarte, 2015) (Wen, 2010). However, some researchers argued that it effect indirectly the way of booking online (Kamarulzaman, 2007). Wang et al. (2015) argued that trust is such a mediator to influence service quality of the hotel website when perceived risk (Chang & Chen, 2008). Consequently, to the best of our knowledge, it is argued that trust has a positive impact on the website service quality toward luxury hotels. Therefore, as the intention is determined by luxury hotel users toward the website quality service and it is hypothesized as follows:

H1. Customer cognition of hotel website service quality (including customer cognition of hotel website, information and interface, and trust) affects customer satisfaction

H2. Customer cognition of hotel website service quality (including customer cognition of hotel website, information and interface, and trust) effects CEBs

H3. Customer cognition of hotel website service quality (including customer cognition of hotel website, information and interface, and trust) affects brand loyalty

The links of customer satisfaction via e-service quality with CEBs and brand loyalty

Regarding the marketing aspects of consumer expectations and actual performance, customer satisfaction is measured by the customer's subjective evaluation of a product/service (Anderson, Fornell, & Lehman, 1994). Because satisfaction is the essential goal to strive for the consumer marketing community (Oliver, 1999), to encourage customers to return, give comments, recommend to their friends to increase relationship of customers with the hotel industry (Rather, 2017) and to affect customers' behavioral loyalty in return (Wang et al., 2015) (Gavilan et al., 2018). In the e-commerce, customer satisfaction was inclined with e-service quality (Bai et al., 2008) such as information system (Liu et al., 2000) (Jeong et al., 2003) guest comments (Zhao, Xu, & Wang, 2018).

In the mix hotel ranking ('luxury', 'upscale' or 'mid-market'), website quality gets indifferent significance (Yeung & Law, 2006) but its functionality such as "Reservation" (Ip et al., 2012) directed customer's purchase intention (e.g. in Taiwan) (Hung, 2017), in tourist' destinations (i.e. in India) (Rather, 2018) and usage (Ma et al., 2008). Those factors could establish the success of the hotel website. However, there seems to be a widespread agreement that website quality affects the level of customer satisfaction. A study of Rather et al. (2019) have explored the causes and effects of CEBs on tourists (Rather, Hollebeek, & Islam, 2019), and effect of customer intention of loyalty on customer satisfaction and CEBs (Rather, Tehseen, Itoo, & Parrey, 2019). It is expected that the higher the star rating of the hotel, the higher website quality should live up to customer expectation. In this study website quality of 4-star and 5-star hotels are defined as luxury " … *has to appear the best of whatever it represents to deliver the brand's name promise.*" Isadore Sharp (CEO in Four Seasons Hotels & Resorts) said; "*something unique, beyond customer expectations to fill their needs and wants*" Carrie McDougall said (President in Cultural Crossroads). The representativeness of 240 Indian guests in 4 and 5-star hotels resulted that the customer engagement contributes relationship to hotel customer loyalty (Rather & Sharma, 2017). A study through a convenience sample of 345 consumers on luxury hotels resulted that the

customer satisfaction positively impacts loyalty (Rather & Hollebeek, 2019). The influence of customer perception of brand might play a role in hotel brand loyalty (Rather, 2018). Hence, the following hypotheses are proposed:

H4. Customer perceived satisfaction via e-service quality affects CEBs

H5. Customer perceived satisfaction via e-service quality effects brand loyalty

The relationship of CEBs and brand loyalty

Brodie, Hollebeek, Juric, and Ilic (2011) defined CEBs as a psychological state when interact with customer experiences within specific service relationships. CEBs are as motivational drivers of customer's behavioral on a brand focus beyond purchase such as complaint, ask for an apology, request for refund and improve the product/service (Doorn et al., 2010). For example, hotel guests would purchase and repurchase service on the hotel website if they are over-joyful with the e-service quality of the hotel. CEBs are engaged in the service context (Islam, Hollebeek, Rahman, Khan, & Rasool, 2019).

In the concept of marketing and corporate performance in today's interactive and dynamic business environments, getting to know CEBs is vital to attract, purchase/repurchase, and exhibit greater loyalty to focal brands (Hollebeek, 2010). However, there are in need to explore the consequences of CEBs with marketing service (Rather, 2019) and customer brand in hotels/resort (Ahn & Back, 2018). Additionally, So et al. (2014) and Harrigan et al. (2017) confirmed that hotel and tourism management on social sites should have better assess the nature of customer engagement to boost trust on brand loyalty. Rather, Tehseen, and Parrey (2018) promoted customer engagement and brand loyalty through their identification and value congruity (Rather et al., 2018). However, some authors argued that the conceptualization of CEBs needs more focus on psychological and behavioral attributes. For examples, CEBs needs to take into account the role of commitment, involvement and trust (Bowden, 2014); engagement, telepresence and interactivity in online consumer experience (Mollen & Wilson, 2010); and networked society through social networks in between users and providers (Verhoef, Reinartz, & Krafft, 2010).

The website is evaluated by 4Ps (Product, Promotion, Price, Place) and added the role of customer relationship (Chiou, Lin, & Perng, 2011). Using PLS-SEM analysis, the authors said that tourist engagement shows a strong positive effect on tourists' satisfaction and loyalty in the Kinabalu National Park, Malaysia (Rasoolimanesh et al., 2019). Therefore, the meaning of the relationship between customer engagement and the tourism service industry (Cheung, Lee, & Jin, 2011) in the visual analytic approach (Cheng, 2015) cannot be ignored recently (Cabiddu et al., 2014). Outputs were enhancing

the engagement of buyers and sellers for effective incoming customer data (Cui, Lui, & Guo, 2012) on social media (Hennig et al., 2010), but little attention on the business website in the hotel context.

Brand loyalty is important to reduce the cost of production and marketing the product, in turn, increase the profit margins. It occurs when a customer keeps going to purchase a product produced by the same brand instead of a substitute product provided by a competitor. Marketing strategy has been mainly focused on such a sustainable competitive advantage through marketing efforts (Dick & Basu, 1994).

In the tourism industry, So et al. (2014) said that brand loyalty has not been only strengthened by service consumption experienced but also by CEBs. Moreover, customers are increasingly engaging with the service quality of luxury hotel brand which reflects their values (Rather & Camilleri, 2019). Besides, Ribbink et al. (2004) indicated that loyalty is attributed to satisfaction and engagement behaviors with the quality of service. For example, customers might be willing to pay more for a booking on the hotel website (Ribbink et al., 2004). Nevertheless, loyalty was not the main focus of providers because of the nature of customer' considerable interest and product' diversity and category (Oliver, 1999). The different perspectives on loyalty were based on a different framework for understanding customer loyalty (Uncles, Dowling, & Hammond, 2003). Guo, Zheng, Ling, and Yang (2014) emphasized that to gain and regain customer booking intention for loyalty, OTAs competed against hotels by providing online bookers cashback after the stay. Therefore, the consumer-based brand equity has been found at luxury hotels (Liua, Wong, Tseng, Chang, & Phau, 2017) to boost loyalty, trust and brand evaluations (Harrigan et al., 2017). Thus, it is posited:

H6. Customer perceived CEBs via e-service quality effects brand loyalty

The study tested the influence of website quality toward satisfaction, CEBs and brand loyalty then measured the mediating role of customer satisfaction between hotel website quality and CEBs. Figure 1 presents our research model and the relationships of constructs.

Methodology

A three-section questionnaire was developed to collect data and fulfill the prospect research objectives. Respondents who have experienced in a luxury hotel within Vietnam in 12 months (Law & Hsu, 2006) to imply the role of understanding the exiting and potential customers' needs (Law & Leung, 2000). The first four questions were used to identify eligible respondents in the first section, namely,
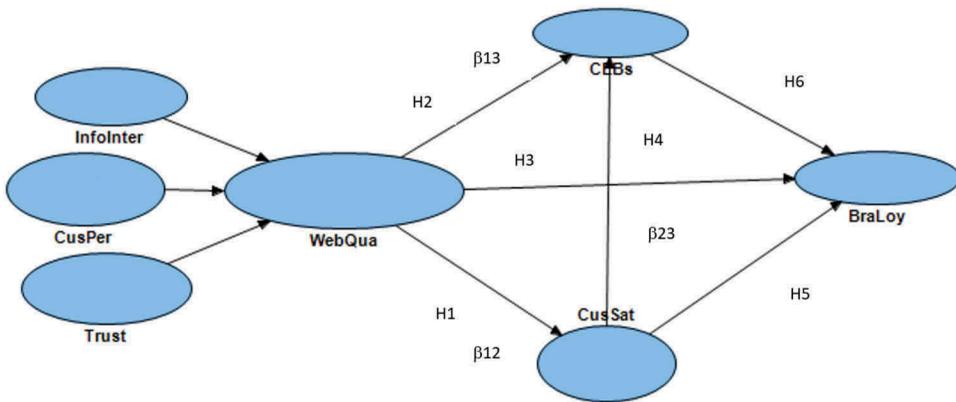
Figure 1. The research model and the proposed relationships.

"Provide the name of any 4-star or 5-star hotels you have stayed in Vietnam the past 12 months?",

"Have you ever experienced on the websites of 4-star or 5-star hotel in Viet Nam?",

"Have you ever booked the room on the websites of 4-star or 5-star hotel in Viet Nam?", and

"Do you intend to book the room on the websites of 4-star or 5-star hotels in the future?"

Both positive and negative answers allowed respondents to go further with the survey.

The four variables included in the second section as described in the path model (e.g. hotel website quality, customer satisfaction, CEBs and brand loyalty). Table 1 shows the constructs with multiple items that followed previous studies closely. We could see that all first-order constructs, including customer cognition of hotel website quality, information and interface, and customer trust reflect the measurement of e-service quality of the hotel and the latent construct such customer satisfaction has been described by indicators (Hair, Sarstedt, Ringle, & Mena, 2012). The first-order variables affected the second-order variables with formative measurement which are named second-order constructs (perceived hotel website quality and customer satisfaction) (Jarvis, MacKenzie, & Podsakoff, 2003)

Variable attributes were measured in a 7-point Likert scale (from 1 = strongly disagree to 7 = strongly agree) to expand the number of choice-points which would increase sensitivity without damaging scale reliability (Cummins,) or capture detailed differentiation of agreement levels (Preston & Colman, 2000). The last section explores characteristics of demographic included gender, age group, time of internet usages, education level,

Table 1. Key references of construct based on reflective indicators.

	Customer perception of hotel website	**Key references**
CP1	The hotel website quality meets positively one' demands	(Liu et al., 2013)
CP2	The performance of website can be attributed to its features and elements	(Musante et al., 2009)
CP3	My perception of hotel website quality could impact on my behaviors at first interaction with website	(Jiang et al., 2016)
	Information and Interface	**Key references**
II1	The hotel website quality is security	(Dolatabadi & Pool, 2013)
II2	The hotel website quality is enjoyment	(Hasanov & Khalid, 2015)
II3	The information is hotel website quality	(Jeong et al., 2003)
II4	The hotel website quality is ease of use	(Hasanov & Khalid, 2015)
	Trust	**Key references**
T1	The hotel website is reliable	(Everard & Galletta, 2014)
T2	I consider to take risk of booking on hotel website	(Mukherjee et al., 2007)
T3	I'm ready to commit to purchase the service on hotel website	(Morgan & Hunt, 1994)
	The service quality (SQ)	
SQ1	The quality of website is service	(Li et al., 2017)
SQ2	Price presentation on website of hotel and OTAs is the same	(Noone & Mattila, 2009)
SQ3	I'm satisfied to reserve a room on website of hotel	(Loiacono et al., 2002)
SQ4	The service of website is useful	(Bai et al., 2008)
	Consumer Engagement Behaviors (CEBs)	
CEB1	I would purchase and repurchase service on hotel website	developed by the authors
CEB2	I would switch to other hotel	
CEB3	I would ask for refund of room booking with the hotel	
CEB4	I would recommend the hotel website with others	
	Brand Loyalty (BL)	
BL1	I am willing to pay more for a booking on hotel website	(Ribbink et al., 2004)
BL2	I rely on website to book a room	(Harrigan et al., 2017)
BL3	The hotel website provides me more benefits for booking	(Guo et al., 2014)
	Customer Satisfaction (CS)	
CS1	I am satisfied with hotel website	(Bai et al., 2008)
CS2	I continue to use booking service on hotel website	(Hung, 2017)
CS3	I am positively associated myself with the hotel' e-service	(Zhao et al., 2018).

continents, monthly personal income and working experiences, etc. Table 2 depicts the demographics of respondents.

A group of domestic tourists who are hotel staffs, outbound tour guides, English and tourism lecturers, hotel owners, and freelancers were employed to view the questionnaire for pretest (n = 12). Minor revisions were modified by their comments. Then the pilot test (n = 59) was used to make sure that our constructs are consistent. Consequently, the original statements were modified to finalize the questionnaire. The data were collected by using the online approach (links spread on the Facebook account and e-mail invitation) and offline approach within approximately 10 minutes each (face-to-face with domestic and international tourists) with stratified samplings during May – July 2018. The Vietnamese and English questionnaires were in different forms and URL links for different respondents. The missing values were removed from these sources, and a total of 321/400 valid responses (80%) were retained for further data analysis.

Table 2. Demographic profile of respondents.

	N = 321	%
Gender		
Female	201	60.5
Male	131	39.5
Age bracket		
18-25	78	25.9
25-35	127	42.2
36-45	84	27.9
>45	12	4.0
Daily Internet usage		
<4hrs	66	21.9
4-8hrs	133	44.2
>8hrs	102	33.9
Working experience		
<1 year	30	10.0
1-3 years	54	17.9
3-5 years	30	10.0
5-10 years	85	28.2
>10 years	102	33.9
Personal monthly income		
<$500	83	25.0
$500-$1000	127	38.3
$1000-$1500	52	15.7
$1500-$2000	28	8.4
$2000-$5000	31	9.3
$5000-$10000	7	2.1
>$10000	4	1.2
Education		
Vocational College	24	8.0
Bachelor Degree	108	35.9
Post Graduate	169	56.1
Booking intention on hotel website		
Yes	207	62.3
No	125	37.7

The common method bias or common method variance (CMV) is a normal issue in the quantitative approach when the data were conducted from only one source. Therefore, we tested CMV issue based on Harman's one-factor test (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) to minimize the error terms. The cumulative percentage of total variance was explained 37.08% and KMO was 0.805 (chi-square = 6313.800, df = 276, sig. = 0.00). Consequently, the CMV and missing data are not threatened with the dataset of the study.

For this study, Partial Least Squares (PLS) version 2.0 was used to conduct the analysis and test the hypotheses for its well-known tool (Nunkoo, Ramkissoon, & Gursoy, 2013) for below 200 samples (Hair, Hult, Ringle, & Sarstedt, 2013) and to gain more inside it (Ringle & Sarstedt, 2016) in tourism research. Indeed, the levels of loadings and path coefficients have measured through PLS algorithms. Then, testing the hypotheses is continued by PLS bootstrapping with 5000 re-samples.

Results & discussions

The measurement model

The composite reliability (CR) and average variance extracted (AVE) were tested for convergent validity of the model, especially CR and AVE values had to exceed the recommended value of 0.7 and 0.5 respectively which can indicate the latent constructs (Hair et al., 2013). The Table 3 shows the high value of all item loadings from above 0.7 but SQ2 has been excluded as an exception ("Price presentation on website of hotel and OTAs is the same"). So the valid values for CR and AVE were retained and pricing quotes are different in the channels of the hotel website and OTAs site

The discriminant validity of the study is shown in Table 4. The Fornell-Larcker criterion shows that the square root of each AVE is higher than the related inter-construct correlation in the matrix (except the Brand loyalty variable). This outcome points out the customer's perspective of not being loyal to any brand hotel. It is inclined to study of Uncles et al. (2003) for understanding customer loyalty toward different aspects and frameworks, and observation of Oliver (1999) for customers' concern toward their interest in various products. In addition, the discriminant validity could result better mean by the ratio correlations of heterotrait-monotrait (HTMT) (Henseler, Ringle, & Sarstedt, 2015). If the value was greater than 0.85, there would violate the discriminant validity (Kline, 2011). So all the values were

Table 3. The validity and reliability of the constructs.

Constructs and items		Loadings	AVE	CR
Customer perception	CP1	0.9073	0.7212	0.9097
	CP2	0.9187		
	CP3	0.8037		
Information & Interface	II1	0.8254	0.7963	0.9197
	II2	0.896		
	II3	0.9237		
	II4	0.9206		
Trust	T1	0.8391	0.721	0.9096
	T2	0.9297		
	T3	0.9442		
Service quality	SQ1	0.7325	0.6999	0.8744
	SQ2 (exclude)	−0.4827		
	SQ3	0.8887		
	SQ4	0.8445		
CEBs	CEB1	0.8141	0.5806	0.8393
	CEB2	0.787		
	CEB3	0.5774		
	CEB4	0.8166		
Brand loyalty	BL1	0.68	0.6634	0.8538
	BL2	0.8935		
	BL3	0.8541		
Customer satisfaction	CS1	0.9309	0.7211	0.9095
	CS2	0.8856		
	CS3	0.9271		

Table 4. Discriminant validity.

	1	2	3	4	5	6	7
Fornell and Larcker's (1981)							
1.BraLoy							
2.CEBs	0.7235						
3.CusPer	0.6317	0.6259					
4.CusSat	0.8526	0.7559	0.6417				
5.InfoInter	0.4822	0.4629	0.7694	0.53			
6.Trust	0.5108	0.5089	0.6724	0.6454	0.8022		
7.WebQua	0.7419	0.6823	0.6734	0.7708	0.4575	0.6054	
Heterotrait-monotrait (HTMT)							
1.BraLoy	0.814494						
2.CEBs	0.7233	0.761971					
3.CusPer	0.6328	0.6271	0.849235				
4.CusSat	0.8525	0.7561	0.6429	0.8491761			
5.InfoInter	0.4836	0.4634	0.7679	0.5306	0.892356		
6.Trust	0.5107	0.5092	0.6722	0.6453	0.8008	0.849117	
7.WebQua	0.7472	0.6921	0.6525	0.7879	0.4497	0.5831	0.836600263

accepted, except InforInter (Information and Interface of hotel website) showing that discriminant validity is not a problem of the model; and information and interface of hotel website should be as clear and concise as possible regarding its hotel star rating. The booking process should have simple navigation, response quickly and easily.

Table 5 presents the weights of the 1st-order constructs toward the 2nd-order construct. The results show that hotel website service quality is a second-order construct with two significant positive 1st-order constructs (service quality perception and trust on the hotel website), but information and interface of hotel websites are a kind of negative first-order constructs. The outcomes indicate that the standard of the hotel will affect the information displayed on the website and it turns to affect the degree of the website interface, such as user-friendly, interaction, design, booking functions, nice and unique images such as unique selling points, etc. Therefore, the customers' perception and belief in the hotel brand name will positively reflect on the hotel website they intend to use. However, they expect that the higher the hotel star rating, the higher the standard. Moreover, the integrity of information and interface must be shown on the website itself. The hotel website with a booking engine should be clear, short and concise especially draw readers in with great headlines. The booking process of the hotel website should determine as least steps as possible to make a reservation; all terms and

Table 5. Weights of the first order constructs on the designated second-order constructs.

2nd order construct	1st-order constructs	Weight	t-value
Hotel website quality	Customer Perception of hotel website	.741	14.182*
	Information and Interface of hotel website	−.607	−9.177
	Trust on hotel website	.626	10.684*

Note: t-values. *2.58 ($P < 0.01$)

conditions of each rate plan should be straightforward, easily understood and not overly complicated. A study by Sale Cycle found that 13% of people abandon their travel bookings online because the booking process is too complex.

The structural model and hypothesis testing

The structural model and hypotheses were tested through a bootstrapping with 5000 iterations without goodness-of-fit by PLS. Consequently, the structural model of the second-order construct is presented in Figure 2. The corrected R2 values of the respective construct explain the explanatory power of the predictor variables. The e-service quality of hotel predicts 59.4 percent of the customer satisfaction. Moreover, customer satisfaction predicts 59.5 percent of CEBs, and both perceived customer satisfaction and CEBs predict 59.4 percent of brand loyalty. Furthermore, customer satisfaction (R2_0.594), CEBs (R2_0.595) and brand loyalty (R2_0.754) can be described as moderate, moderate and substantial, respectively (Chin, Peterson, & Brown, 2008).

Table 6 presents the results of the hypothesis testing. The outcomes show that customer cognition of website service quality (i.e positively trust and customer perception and negatively information and interface) influences customer satisfaction. This in turns affects their CEBs and brand loyalty positively and significantly. The results accept H1, H2, H4, H5 but H3 and H6. This study confirms that website service quality contributes to customer satisfaction, then influences their CEBs and brand loyalty. The outcomes are not inclined to a study of Ha (1998) and So et al. (2014) for the positive relationships of brand loyalty focus on the CEBs or customer satisfaction
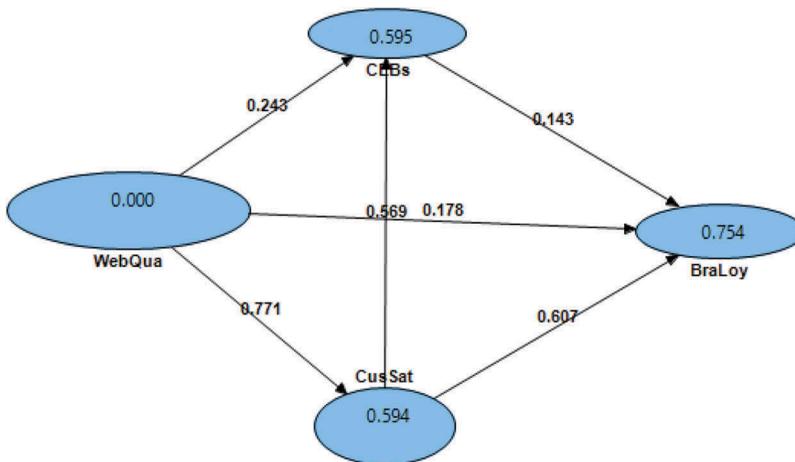

Figure 2. Structural model of second-order construct.

Table 6. Testing of hypotheses.

Hypotheses	R Square	Beta	t-value	Decision
H1: Service quality – > Customer satisfaction	0.754	0.004	13.841*	Supported
H2: Service quality – > CEBs	0.595	0.049	2.226**	Supported
H3: Service quality – > Brand loyalty	0.594	0.075	1.538	Not Supported
H4: Customer satisfaction – > CEBs	0.569	0.041	3.7252*	Supported
H5: Customer satisfaction – > Brand loyalty	0.607	0.030	4.5084*	Supported
H6: CEBs – > Brand Loyalty	0.143	0.088	1.2753	Not Supported

Note: Critical t-values. *p < .01. **p < .05.

through service consumption (Ribbink et al., 2004). In addition, the service quality of the hotel website is exerting pressure on customer cognition. It implies that an excellent website service quality can prove to be excited and eager to earn higher customer satisfaction and CEBs level. For instance, customers who likely engage with hotel websites, are spent good time with excellent service quality of hotel websites. It is therefore imperative for practitioners to provide proper website service quality via integrity information with friendly users, trustworthy site and positive customer perception of the hotel website to go beyond customer expectations. Because customers may judge a hotel service quality of its representative website, such as a killer landing page with attractive images and strong headlines which connect with guest' emotion can be benefit-driven. When the hotels can determine booking conditions, behavior, and lifestyle of customers, which will lead to a better understanding of what choices customers are willing to make. And if the hotel knows the customer's value proposition, better pricing and decisions on restrictions can be made.

The mediation effect of customer satisfaction

The role of e-commerce service on hotel website has not been cared much, especially when it comes to as an exogenous construct to earn customer satisfaction and CEBs possible as endogenous constructs in this model. Therefore, we observed the effect of customer satisfaction as a mediator restricted directly by service quality of the hotel website and CEBs. The conditions to exist mediation effect in the study were obtained (Baron & Kenny, 1986). The three conditions as b12, b13, and b23 were significantly accepted to take advantage of e-service quality into customers' experiences (Zeng et al., 2012) and satisfaction (Bai et al., 2008). The last condition can be full mediation if the parameter value of service quality and CEBs is insignificant than the parameter estimate of bwq to bCEBs. However, the study results in partial mediation, due to less significance of parameter estimate of service quality and CEBs than bwq to bCEBs. Accordingly, the customer satisfaction had a partial mediating role (b13 = .0034, t = 15.1705 1, and bwq to bCEBs = .00480, t = 2.3311). The indirect effect of customer satisfaction

here explained its relationship between CEBs and the tourism service (Cheung et al., 2011) for visual approach (Cheng, 2015) we cannot afford to ignore (Cabiddu et al., 2014). The indirect effect of hotel website quality on CEBs through customer satisfaction was .00015, which came from b12*b23. The total effect hotel web-site quality on CEBs through customer satisfaction was 0.0482, which collected from b13+ b12*b23 with p < .05. The outputs, enhanced engagement of buyers and sellers, especially on the internet (Hennig et al., 2010) to obtain incoming customer data (Cui et al., 2012) for further marketing business.

Conclusions & implications

The hotel websites should be offering various benefits for users and suppliers and increasing as an important booking and distribution channel (Hsu et al., 2012) to foster relationship management which builds up customer satisfaction, customer behaviors (Rather, 2017)(Ponte et al., 2015) (Rather et al., 2019) but brand loyalty (Ribbink et al., 2004) (So et al., 2014). Hotel website can be used conveniently by lookers for information and transactions (Amaro & Duarte, 2015). There are arguments to explore the feature, content and side effects of website service, but lack of research from the customer perspective of website quality and how it influences the customer satisfaction, CEBs and brand loyalty toward luxury hotels.

From a theoretical perspective, the study aims to fill the research gaps and confirms the correlation between customer cognition of hotel website service quality and customer satisfaction as predictors of CEBs on the website of 4 and 5-star hotels. In the century that e-commerce is more prevalent, attributes of e-service quality are a vital role in online travel shopping. Internet users are favorable engaged in travel shopping (Bai et al., 2008) and searching it compatible with their lifestyle and benefits (Anderson et al., 1994). CEB used in this current study as one of the research limitations of Doorn et al. (2010) and Hollebeek (2010) on the measurements of customer engagement with the hotel website. Besides, the study encourages other scholars to adopt verified measurements items for CEB in future studies.

Furthermore, it should be aware of that online shopping is a common practice, regarding consumer trust on hotel website would risk to affect satisfaction and intention to purchase travel online in practical (Belanche, 2012). These findings are inclined and provided more pieces of evidence about booking on the website of the hotel to the study of Bai et al. (2008), and Wang et al. (2015) where system service quality and information quality have measured the significance of customers' perceptions and behaviors. However, this study added the role of trust in the e-service quality components, in turns impacts positively the degree of customer satisfaction, CEBs and brand loyalty.

In addition, as the mediating role, the higher levels of satisfaction, the higher positive engagements of customers toward e-service quality. On the contrary, the more understanding the customer' interest, demand, emotion and behaviors of the targeted customers toward the hotel website' creativity, content and booking process, the more successful in building customer' content and leading to repeated guests somehow. Therefore, hotel managers need to ensure better website performance. It can attract more customers to intend to purchase. Moreover, its benefit is driven for higher yield and competitive positioning in the current and potential markets.

Moreover, the website' information and interface prove to be a must-have functionality of hotel website service quality. In e-commerce, it is a core value where customers can not know or inspect the items before buying but rely on-site' information. It is therefore imperative for hotel managers to provide more resources; keep up-to-date information; and build trust and accuracy of websites for customers' involvement.

Although the study has provided shed light on important issues into the e-service of the tourism industry, limitations need to be considered for further research. There are only three dimensions of website quality hotel website (information and interface, customer cognition of hotel website and customer trust on hotel website). Nevertheless, there are more important factors related to website service quality (i.e. booking intention, room rate strategy, perceived flow, perceived enjoyment, security and privacy, travel purposes, cultural factors, etc.). Also, limitations are inclined with timing, budget, data availability and accessibility and other practical concerns.

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