

Determinants of E-service Quality Towards Continuing Using Mobile Application for Hotel Reservation: Case of Agoda Application

Krittapat Pitchayadejanant^{1*}, Kritta-orn Chewwasung², Parinya Nakpathom³
Kritiya Srikasem⁴, Manatchanan Lekmeechai⁵, Chanitta Chaiyawet⁶, Sirintip Suriwong⁷, Chen
Wei Tso⁸

^{1,2,3} Instructor, Burapha University International College

^{4,5,6,7,8} Undergraduate Students, International Hospitality and Tourism Management, Burapha University
International College

*krittapat@go.buu.ac.th, krittaorn@go.buu.ac.th, parinyan@go.buu.ac.th

*Corresponding Author

Abstract: Agoda application for booking online is popular in Thailand and dramatically increased in every year because the life style of tourists is changed due to technology adoption. The determinants to find out the effect between electronic service (e-service) quality and continuing usage help the online travel agents to consider the application features. As a consequence, this research aims to find out the determinants of e-service quality that significantly affect customers' continuing application usage. E-service quality determinants consist of 5 dimensions: ease of use, application design, responsiveness, information quality and assurance. The respondents in this study are tourists who come to travel to Bangsaen beach and use Agoda application for hotel reservation in this travel. With this study, 400 respondents filled in the questionnaire during March and April 2019. The statistic techniques to analyze for achieving the research objective are exploratory factor analysis (EFA) and structural equation model (SEM). The result shows information quality and responsiveness are significantly influence the continuing application usage. The strongest influence on continuing application usage is information quality and responsiveness, respectively. The finding can assist the online travel agency to reconsider their website or invented mobile application to support their customers for reserving hotel. According to managerial point of view, the tourists are looking for the application that updates information regularly, has precise and clear information. Furthermore, the quick response on customers' feedback and their request to provide the necessary information is essential for their continuing application usage.

Keywords: E-Service Quality; Mobile Application; Hotel Reservation

1. Introduction

Contemporarily, people are beginning to arrange traveling by themselves. The use of online travel agencies and internet-based accommodation booking platforms have increased significantly over the past decade (Guttentag, 2015). Potential guests can gather information about the accommodation structure without contacting the accommodation or turn to the travel agency. They can prepare their travel routes while viewing the screen, checking room availability and comparing prices and facilities (Runfola, Rosati, Guercini, 2013). Hotel booking applications offer the most convenient way of landing the best booking deals. According to previous researches, consumers are turning to the internet to take advantage because of easy booking and price comparing. Currently, the trend of consumers searching information via online before making decision has increased obviously.

The advancement of internet technology has forced hoteliers to invest significant amounts of money and put effort to develop and maintain their information channels both offline and online. Especially online channel, researchers have considered on developing and testing online hotel

booking models (Liu & Zhang, 2014; Qi, Law, & Buhalis, 2013; Scaglione, Schegg, & Murphy, 2009). Studies have shown that the adoption of hotel websites is positively related to performance (Scaglione et al., 2009). In addition, hotel revenue without booking via online has decreased. As a consequence, booking applications are inevitably looked over because they are online source and comfortable for customers.

Main reason for using application is providing a better user experience in speed and ease of use. However, the popular booking application in Thailand is Agoda. Agoda hotel booking application is the tool for you to find hotels and other accommodation all over Thailand. The aim of this research is to find out how the accommodation booking application are analysis tourists demand on which information or content they are concerned in booking application and which information that they still lack. Online hotel booking technology has become a major tool for selling hotel services.

2. Literature review

2.1 Online Booking

An online booking system is a software that can be used for reservation management. It allows tour and activity operators to accept bookings online and better manage their phone and in person bookings (Odgers, T. 2017). Online booking means booking through the Internet (Bhatiasevi & Yoopetch, 2015). Generally, hotel management has to concern costs controlling but still provide convenient booking facilities for travelers. Hence, using online booking tools (OBTs) such as hotel websites, online travel agency websites, and airline websites, are applicable to serve the guests. With online booking, customers can book airline tickets, hotel accommodation and other travel-related products or services using mobile phones or other portable mobile devices connected to the wireless network (Yang, Chu, & Yang, 2006). Recently, the online booking technology has widely adopted by service providers, hoteliers and customers because it is easy for checking information, inquiries and booking online (Carlson Wagonlit Travel, 2011). The customers are convenient for payment because they can be processed in multiple currencies and transaction data are protected and retrieved securely.

2.2 Agoda application

Agoda application is the largest and fastest growing online hotel booking platform in Asia. Many hotels deal with Agoda; it is useful because it helps traveler in finding the cheapest hotels no matter wherever they are in the world. It offers the most affordable price which provide everything you request. This application is easy to use and let you check the price, hotel location and recommendation. You can switch to the map and see the rates of hotels in your preferred location. Agoda provides the comparison indicators in order to prevent the catchy information. This application is such eco-system because the travelers can give the feedback about their experience towards the destination via application. The bookers can read the feedback for assisting their decision.

2.3 E-Service Quality

Electronic service (E-service) is defined as services provided through electronic networks including with providing products, environments and delivery in any business model. With the adoption of electronic services in the commercial sector, people have realized the importance of measuring and monitoring the quality of electronic services in the virtual world. The quality of electronic services has become as interesting issues in service industry. E-service quality is service provider through a given electronic channel without human intervention in order to enhance customer's experience. E-service consists of five factors that measure and evaluate e-service quality which are ease of use, application design, responsiveness, information quality, and assurance (Tan, C. W., Benbasat, I., & Cenfetelli, R. T., 2013).

2.3.1 Ease of use

Based on Constantinides (2004), usability is associated with the success or failure of a website and the experience of a customer's website. He claims that this function is really imperative for the website. Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2002) claims that ease of use is a key consideration when customers judge the quality of service of a website. Terminological usability and ease of use are synonyms of online settings. Relevant elements of this dimension are: website function, speed, general design and website organization (Zeithaml et al., 2002). Nah and Davis (2002) defined usability as being able to find a person's way on the network, find the information needed, know what to do next, and, most importantly, do it with minimal effort. The core of this usability concept is ease to navigate and search information. Usability dimension included functionality, information access and navigation (Constantinides, 2004; Ribbink et al., 2004). Zeithaml et al. (2002) discussed the accessibility of information and the scope of information affecting the quality of service. Ribbink et al. (2004) discussed the dimension of ease of use that is especially important for new guests. They also believe that this is an important condition for consumer satisfaction because it is closely related to the development of customer experience.

2.3.2 Application design

According to Lee & Lin (2005), application design is necessary for online application. It is shown clearly on the interface which customers watch when they access to the application. Thus, it can gain the first impression of the customer, keep their attention and let them interact when they enter the application. The design method also is important with the first attraction which increases the customer trust and customer satisfaction. This theory is suitable to apply for service application because service application also has the same characteristic and display as retailer websites (Constantinides, 2004). Ribbink et al., (2004) claim that the design of the display is a conditional factor which has the ability to check overall service quality.

2.3.3 Responsiveness

Responsiveness is one of factor presenting service quality (Zeithaml et al., 2002). It involves being able to answer customer questions and solve customer problems (Kassim & Abdullah, 2010). Fan & Tsai (2010) believed that effective customer support was one of the important factors determining the success of online entrepreneurs and websites. Ribbink et al. (2004) claimed that online customers want to respond quickly to their requests and get useful advice from service providers. They also emphasized that professional responses can have a positive impact on customer satisfaction. Gummerus et al. (2004) and Kassim and Abdullah (2010) agreed and stated that responsiveness did not only improve customer satisfaction, but also increased customer trust in the service. Therefore, the responsive dimension is qualified as being as one dimension of service quality (Ribbink et al., 2004). According to Gefen (2002) and Zeithaml et al. (2002), companies can research customer needs and customer behavior by gathering customer responsiveness which affecting to the customer's impression and customer loyalty.

2.3.4 Information Quality

In the hotel website, the quality of information is very influential for hotel customers due to usually customer do inspect hotel website for hotel information surveillance. According to the information quality, one of the most vital factors in determining the success of a hotel website (Wong & Law, 2005). All details and information should communicate concurrently and be understandable to the customer precisely. Customers will satisfy when the website can provide accurate information to customer honestly. There are various hotel websites indicators that should aware, for instance, features, connections to other sites, usefulness of content, visual appearance and rate information (Wong & Law, 2005).

2.3.5 Assurance

In order to motivate visitors to book hotel accommodation through the website, customers need to ensure that the application or website will keep their information confidentially and safely. In this

context, safety refers to conditions that protect against the dangers, risks or injuries. On the other hand, privacy refers to the ability of hiding individuals or groups important information of customers. Hotel websites are available online and accessible to everyone, hotel customers care about the security and privacy of the information they shared on the site. For illustration, customers may be required to disclose their personal information, such as name, address, age, gender, personal financial status, credit card number, social security number or social security number, for online booking. This information may be exposed to a variety of risks, such as online scams, online hacking, etc. (Law and Jogaratnam, 2005). Therefore, the hotel website should be able to provide good protection and the personal information of all customers is kept in a safe place. When customers trust the hotel booking site, they will be more interested in using online booking. Payment can be processed in multiple currencies and your transaction data is protected with Secure Sockets Layer connection to ensure secure transactions (Constantinides, 2004).

2.4 Loyalty

During the term of using the service, partly from the behavior of consumers, including the reliability of the application itself is the main factor, making customers trust and loyalty to the application. If consumers feel satisfied with products or services, they will become a recurring customer. Furthermore, loyal customers hold constancy of sales by increase in purchasing power and help company to reduce expenses to attract attention. Besides, loyal customers advance the competitive edge for companies and not to be susceptible of the changing price. In addition, loyal customers convey optimistic behavior about the company. It is high priority to achieve loyal customers in the virtual world than in the physical world.

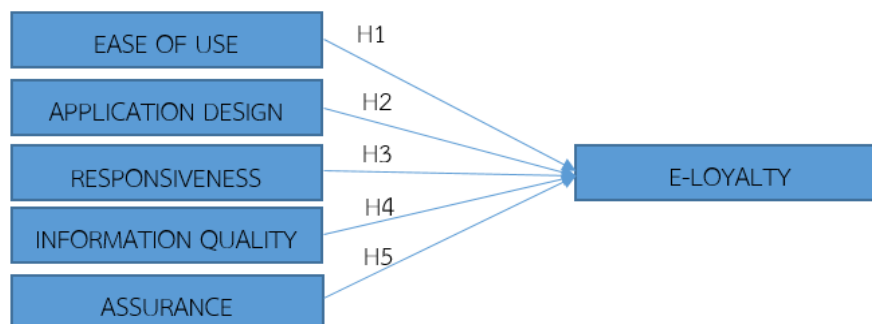


Figure 1. Proposed Framework

Accordingly, to the above theoretical framework, the following research hypotheses are formulated:

- Hypothesis 1: Ease of use directly and positively influences E-Loyalty.
- Hypothesis 2: Application design directly and positively influences E-Loyalty.
- Hypothesis 3: Responsiveness directly and positively influences E-Loyalty.
- Hypothesis 4: Information quality directly and positively influences E-Loyalty.
- Hypothesis 5: Assurance directly and positively influences E-Loyalty.

3. Research Methodology

The questionnaire is developed as the research instrument and consisted of five parts. The first part is socio-demographic characteristics which are age, gender, education level and personal annual income. Secondly, 20 items related to e-service quality dimension which included 5 dimensions which are ease of use, application design, responsiveness, information quality and assurance are developed. Thirdly, 4 items of customers' loyalty are developed. Lastly, the recommendation was the last part in order to know deeply tourists' perspective in Agoda application. Respondents in this study are the people who already have the experience of Agoda application and give the score with 5-point Likert scale. The reliability test of the questionnaire is 0.908.

4. Data analysis

4.1 Socio -Demographic

The socio-demographic characteristics are presented in Table 1. The number of gender between male and female is close to the half but the majority of respondents' age is 18-25 years old because they are proactive to use technology for online booking. Of course, the majority of occupation are students.

Table 1. Socio-Demographic Characteristics of Respondents

Variable	N=400	Percentage	Valid Percentage	Cumulative Percentage
Socio-Demographic Characteristic				
Gender				
Male	193	48.3	48.3	48.3
Female	207	51.8	51.8	100.0
Age				
18-25	284	71.0	71.0	71.0
26-35	54	13.5	13.5	84.5
36-45	17	4.3	4.3	88.8
46-55	36	9.0	9.0	97.8
55 and above	9	2.3	2.3	100
Occupation				
Student	271	67.8	67.9	67.9
Employee	44	11.0	11.0	78.9
Business Owner	43	10.8	10.8	89.7
Government officer	30	7.6	7.6	96.3
Housewife	12	3.1	3.1	100

4.2 Factor Analysis

According to table 2, shows the assessment of factor loading and reliability of each construct. The result of the table shows that all constructs are acceptable; composite reliability greater than 0.7. The analysis shows the total variance explained 62.013% which satisfies in social sciences research. With the restriction of analysis, there is one item is not extracted in any factor, thus, it has been deleted.

Table 2. Principle component analysis factor loading and composite reliability

Constructs and items	Standardized loadings	Composite reliability
Assurance		
1. Agoda application protects private customer information.	0.776	0.816
2. Payment system of Agoda application is safe.	0.756	
3. Agoda application secures customer transaction.	0.754	
4. Payment policy explains in detail and easy to understand.	0.658	
Responsiveness		
5. Agoda application responds request quickly.	0.804	0.800
6. It is easy to contact Agoda staff.	0.756	
7. Agoda concerns providing feedback.	0.736	
8. Agoda application provides necessary information.	0.581	
Ease of use		
9. Agoda application is easy to find information.	0.737	0.787
10. Agoda application helps to save times in booking.	0.732	
11. Agoda application is easy to use.	0.687	
12. Agoda application interface is friendly.	0.637	
13. Agoda application displays attractive service information.	0.524	
Quality of Information		
14. Agoda application has completed hotel booking information.	0.796	0.746

Constructs and items	Standardized loadings	Composite reliability
15. Agoda application has updated regularly.	0.713	
16. Agoda application delivers good information.	0.707	
17. Agoda application has clear communication to customers.	0.595	
Application Design		
18. Agoda application has good design.	0.848	0.713
19. Agoda application provides understandable information.	0.771	

4.3 Structural Equation Model (SEM) Analysis

According to the result of research model, the measurement indicators of model results very well fitting: CMIN/DF = 1.856, GFI = 0.919, AGFI = 0.900, CFI = 0.948, RMR = 0.033, and RMSEA = 0.046.

Table 3. E-service quality dimensions affecting loyalty

Model	Unstandardized Coefficient	Standard Error	Standardized Coefficient	P-value	Result
Ease of use	0.104	0.100	0.089	0.298	H1 is not rejected
Application design	0.109	0.154	0.056	0.481	H2 is not rejected
Responsiveness	0.323	0.087	0.307	0.000**	H3 is rejected
Assurance	-0.103	0.077	-0.107	0.180	H4 is not rejected
Quality of information	0.388	0.083	0.371	0.000**	H5 is rejected

** P-Value < 0.05

In Table 3, the result of E-service quality dimensions of Agoda application affecting to customer loyalty are responsiveness ($\beta = 0.307$, p-value = 0.000) and quality of information ($\beta = 0.371$, p-value = 0.000). In contrast, three dimensions do not affect the customer loyalty which are ease of use ($\beta = 0.104$, p-value = 0.298), application design ($\beta = 0.109$, p-value = 0.481), and assurance ($\beta = -0.103$, p-value = 0.180). The dimension that has the most effect to customer loyalty is quality of information; secondly, it is responsiveness.

5. Conclusion and Implication

According to the result, the respondents has already used the Agoda application more than one time. In addition, the respondents are growing up with technology, then they are familiar with the application. Hence, the ease of use, application design, and assurance are not their difficulties to escape from their usage and being loyalty. Therefore, the result shows these three dimensions have no effect toward being loyalty of customer. Surprisingly, there are only two dimensions: quality of information and responsiveness affecting to be loyalty of customer. As a consequence, Agoda application has implemented the ease of use, application design, and assurance very well so that the customer are used to its application until they do not realize the dimensions are special or outstanding to affect their being loyalty.

For attracting this group of customer for being loyalty, the application should be good response to customers' request: reducing the waiting time for booking. The application should be abruptly retrieved the requested information and shown. In addition, the information should be delivered correctly and updated regularly.

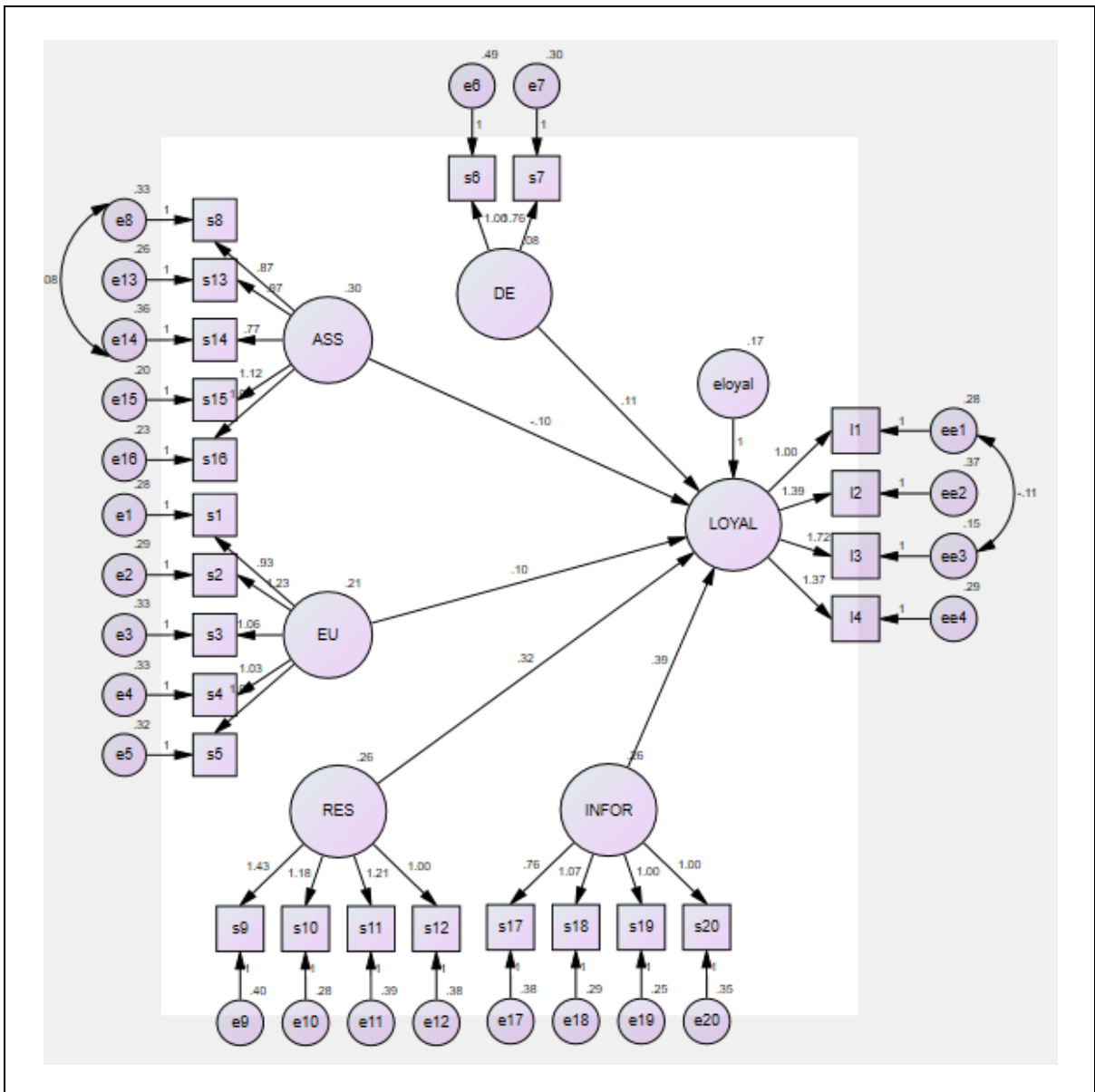


Figure 2. Result of study

Acknowledgement

This research is fully supported by Burapha University International College (BUUIC)

References

- Constantinides, E. (2004). Influencing the online consumer's behavior: the Web experience. *Internet research*, 14(2), 111-126.
- Emir, A., Halim, H., Hedre, A., Abdullah, D., Azmi, A., & Kamal, S. B. M. (2016). Factors influencing online hotel booking intention: A conceptual framework from stimulus-organism-response perspective. *International Academic Research Journal of Business and Technology*, 2(2), 129-134.
- Fan, W. S., & Tsai, M. C. (2010). Factors driving website success—the key role of Internet customisation and the influence of website design quality and Internet marketing strategy. *Total Quality Management*, 21(11), 1141-1159.
- Gefen, D. (2002). Reflections on the dimensions of trust and trustworthiness among online consumers. *ACM SIGMIS Database: the DATABASE for Advances in Information Systems*, 33(3), 38-53.

- Gummerus, J., Liljander, V., Pura, M., & Van Riel, A. (2004). Customer loyalty to content-based web sites: the case of an online health-care service. *Journal of services Marketing*, 18(3), 175-186.
- Kassim, N., & Asiah Abdullah, N. (2010). The effect of perceived service quality dimensions on customer satisfaction, trust, and loyalty in e-commerce settings: A cross cultural analysis. *Asia pacific journal of marketing and logistics*, 22(3), 351-371.
- Law, R., & Jogaratnam, G. (2005). A study of hotel information technology applications. *International Journal of Contemporary Hospitality Management*, 17(2), 170-180.
- Nah, F. F. H., & Davis, S. (2002). HCI research issues in e-commerce. *Journal of Electronic Commerce Research*, 3(3), 98-113.
- Ribbink, D., Van Riel, A. C., Liljander, V., & Streukens, S. (2004). Comfort your online customer: quality, trust and loyalty on the internet. *Managing Service Quality: An International Journal*, 14(6), 446-456.
- Tan, C. W., Benbasat, I., & Cenfetelli, R. T. (2013). IT-mediated customer service content and delivery in electronic governments: An empirical investigation of the antecedents of service quality. *MIS quarterly*, 77-109.
- Wong, J., & Law, R. (2005). Analysing the intention to purchase on hotel websites: a study of travellers to Hong Kong. *International Journal of Hospitality Management*, 24(3), 311-329.
- Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2002). Service quality delivery through web sites: a critical review of extant knowledge. *Journal of the academy of marketing science*, 30(4), 362-375.