A Study on Relationship Between Antecedents and Consequences of Customer Satisfaction for Online Hotel Booking Apps

Priyanka Singh* and Kavita Chauhan**

Abstract

Due to the emerging online competitive business opportunities in hospitality sector, it has become imperative to identify the factors leading to customers' satisfaction. Therefore, this study aimed to identify the antecedents as well as consequences of customer satisfaction of a leading online hotel booking platform and the relationship between them. This was done with the help of e-CSI model. For this purpose, a total number of 269 responses were recorded and the model was tested using SEM technique. The findings revealed that perceived trust, e-SQ and perceived value as antecedents having significant positive impact on customer satisfaction. In an addition, the perceived trust, an antecedent of customer satisfaction also positively impacted the customer loyalty (a consequence of customer satisfaction). The study provides helpful insights for the online hotel booking apps. Accordingly, online companies providing online hotel booking services can help create customer satisfaction by improving their app design and responsiveness.

Keywords: Customer Satisfaction, Online Hotel Booking, E-Hospitality, E-Tourism, E-Services, E-Service Quality (E-SQ), Perceived Trust, Perceived Value, Customer Loyalty.

^{*} Research Scholar, Centre for Management Studies, Jamia Millia Islamia, Jamia Nagar, New Delhi:priyanka17291@yahoo.com

^{**} Professor, Centre for Management Studies, Jamia Millia Islamia, Jamia Nagar, New Delhi:kavitachauhan77@gmail.com

1. INTRODUCTION

The E-commerce platform has revolutionized the traditional business models throughout the world. The hospitality industry in India has not been untouched from this revolution and has been flourishing consistently since its inception. There has been considerable increase in the number of online travel agencies in India. These online hotel booking apps provide significant help to the customers in the form of information, hassle free bookings and quick payment mechanisms. The provision of all the services online, beginning right from information search to making the final payments has entirely changed the experience for the customers. As a result, assessing factors leading to e-customer satisfaction has been of interest for various researchers. Hence, various studies have been conducted to understand the factors that lead to success of e-commerce apps towards gaining customer's satisfaction and revisit behavior. A study conducted by Rao et al. (2021) showed that evendors who ensured the quality of their product, offered complete knowledge about the product/ service were more preferred by the customers and it helped to increase customer satisfaction and confidence in the e-store. Studies have also been conducted to understand the impact of e-WOM on online purchase behaviour (Ardyan, Kurniawan, Istiatin & Luhgiatno, 2021). Similarly, Kuang et al. (2011) through their study found that provisioning of high quality of e-service leads to higher customer satisfaction and helps the OTA's to improve their chances of revisiting the app or app. Therefore, this study focusses on assessment of the impact of factors namely, e-service quality factors, perceived trust and perceived value upon customer satisfaction of the online hotel booking app Oyo. It stands for "On your Own Rooms"became India's largest hospitality company with its operations spread across 230 cities offering 8500 hotels and had become the market player in a short span of time. Not only this but it also revolutionized the hospitality sector in India by pioneering technology driven approach in hotel booking. Oyo is based upon E-commerce platform and it thrives on its technology to deliver better and more efficient operations, management, service and CRM. Also, this study seeks to understand the impact of customer satisfaction on loyalty of the customers to book again using the app. This has been done by

way of proposing an e-CSI model.

In the next section, this paper will discuss the review of literature based upon which the research questions and research objectives have been identified which has been followed by the hypothesis under the study. Based upon which, a model has been proposed. Further, next section will include the research methodology followed by the discussion about the results of the study. The final section of this paper will consist of the conclusion based upon the analysis and results.

2. LITERATURE REVIEW

According to Devaraj et al. (2002) Customer Satisfaction is determined when the customers feel positive emotions post experience, with the services provided. In order to create positive feelings towards the service, the companies must provide the customers with the quality that excels the expectations of the customers. Therefore, assessment of customer satisfaction cannot be made without the assessment of quality (Sánchez-Rebull, Rudchenko & Martín, 2017). One important thing to be noted here is that, the e-CSI model distinguishes between quality and value (Anderson, Fornell & Lehmann, 1994; Hsu, 2008). This distinction between these two parameters provides valuable information about the degree to which satisfaction is obtained compared to price versus quality driven (Anderson, Fornell & Lehmann, 1994). However, it has also been argued that the traditional service quality concept cannot be applied to e-Commerce platforms directly (Dargah & Golrokhsari, 2012), since it consists of some unique characteristics of impersonal communication and app information system (Kandampully, 2008). Hence e-service quality concept has been utilized by studies to overcome the limitations of traditional SQ (Hanafi, 2017; Hsu, 2008; Kuang & Yang, 2011). E-SERVQUAL model given by Zeithaml et al. (2002) is one of the most commonly used scale in numerous studies. He suggested four dimensions: efficiency, reliability, fulfillment and privacy. Ho & Lee (2007) successfully constructed a scale in measure E-Travel Service Quality Scale to test the relationship between service quality, satisfaction and behavioral loyalty. The dimensions measured

were; Information Quality, Security, App Functionality, Customer relationships and Responsiveness. Yang & Fang (2004) emphasized that web-based technologies can be used to automate product distribution and customer services, including transaction and payment systems, call centers, customer relationship management systems, as well as the underlying analytics, reporting, and operations of these systems and hence, named it as Information systems quality dimension. Also, the results of numerous studies have shown that consumers' perceived trust in travel app is a significant factor which impacts not only the intentions (Bonsón Ponte, Carvajal-Trujillo & Escobar-Rodríguez, 2015) but also long term association by way of creation of customer loyalty (Hsu, 2008; Kim et al. 2011). e-SQ along with perceived trust has been seen to have a significant impact on customer satisfaction (Hsu, 2008; Kim et al. 2011). Kim et al. (2011) also reported in their study that navigational functionality which is nothing but technical expertise of web designer in imparting app all the useful features in order to improve the efficiency and quality of app, had a significant impact on perceived trust in the in the context of online travel apps. Thus, app design, responsiveness and reliability were identified as important e-SQ factors to be considered for undertaking the study.

The American Customer Satisfaction Index (ACSI) was introduced in 1994 by Fornell et al. The model comprises of six constructs namely: consumer expectations, perceived quality, perceived value, consumer satisfaction, consumer complaints and consumer loyalty. However, numerous studies have revealed that customer expectations do not significantly affect the customer satisfaction (Deng, Yeh & Sung, 2013; Kim et al., 2011; Hsu, 2008). Hence, Hsu (2008) in e-CSI suggested the substitution of trust for customer expectations in online setting. Previous studies have suggested that perceived trust impacts the traffic generated by an OTA app. Also, studies have been conducted time and again suggesting that consumers' perception about how an e-commerce app ensures their privacy and security impacts their level of dealing with that particular app. Kim, Chung & Lee (2011) reported through their study that navigational functionality and perceived security were significant factors impacting trust. Interestingly, the study also showed that satisfaction acted as a mediator of trust and trust had a significant impact on loyalty. Bonsón Ponte, Carvajal-Trujillo & Escobar-Rodríguez (2015) through their study revealed that information quality and perceived security were main antecedents of perceived trust in the context of travel apps. Hence, it could be said that consumers in the online environment do not make purchases unless they are ensured about the security of their actions and privacy of their personal information. In other words, unless they trust aapp they are reluctant to provide their personal information or transactional information required for making the payments. Hence, the factors leading to perceived trust are utilized by the tourism app operators for designing their apps in such a way that enhances the customers' perception about the apps being reliable (Bonsón Ponte, Carvajal-Trujillo & Escobar-Rodríguez, 2015; Kim, Chung & Lee, 2011; Hsu, 2008). Akhila & Manikandan (2018) observed that Indians considered security as one of the key factors while booking hotels online. The more the consumer feels secure about using the ehospitality platform, the more likely he is to trust it and make purchases again and again. Dutta, Kumar Chauhan & Chauhan (2017) measured the impact of electronic service quality factors on Trust and further trust's impact on Perceived Value. As per their findings, trust and perceived value were significantly associated. This means that, customers' perception about trust with aapp has an impact upon their willingness to buy or buy from that app. Bonsón Ponte, Carvajal-Trujillo & Escobar-Rodríguez (2015) also analyzed and reported in their study the significant impact of perceived trust on perceived value of online travel purchases. Therefore, Companies in the online environment continuously try to improve their processes so as to create a sense of security and trust amongst the customers. Trust also impacts customers' satisfaction and loyalty because in the initial phase, trust helps in attracting customers and in later phase, it helps in their retention (Dutta, Kumar Chauhan & Chauhan, 2017; Hsu, 2008). Thus, lack of perceived trust in a travel app may ultimately lead to not turning up of customers to the app at all.

Perceived value can essentially be seen as a trade-off between what the customers receive in return for the monetary and non- monetary costs which they have to incur (Zeithaml, 1988). The non- monetary cost may include the effort the customer has to put in order to obtain the product or service. E-commerce entities can generate right value for their product amongst the customers by understanding the cut-off criteria which they use to make decision about a product. Hanafi (2017) in his study identified worth of product, need fulfillment, customer effort and branded features as significant antecedents of perceived value. The perceived value was also found to have a significant impact on the customer satisfaction and customer loyalty. Abdullaha, Jayaramanb & Kamala (2016) through their conceptual model based upon the literature proposed that perceived value was having a significant impact on customers' revisit intention towards the hotel booking apps. Previous studies have focused on both the monetary and non-monetary aspects of perceived value. Numerous studies have found that perceived value has a significant positive effect on customer satisfaction (Deng, Yeh & Sung, 2013; Dutta, Kumar Chauhan & Chauhan, 2017; Kuang & Yang, 2011; Lee, Wang, Lu, Hsieh, Chien, Tsai & Dong, 2016; Wu & Ding, 2007).

Customer loyalty is characterized by repeat purchase behavior, repeat visiting intentions towards the app and willingness to recommend to others. There is a close relationship between customer satisfaction and loyalty (Suwunniponth, 2013). Lee, Wang, Lu, Hsieh, Chien, Tsai & Dong (2016) revealed through their Taiwan Customer Satisfaction Index (TCSI) that customer satisfaction had a strong influence on customer loyalty of the tourists on the Taiwan's' tourism industry. Deng, Yeh & Sung (2013) also reported through their H-CSI about the significant positive influence of level of satisfaction and the revisiting intentions of the customers. Numerous literatures provide evidence of a positive relationship between customer satisfaction and loyalty irrespective of the context whether the tourism companies are operating through a traditional or ecommerce channel. Suwunniponth (2013) reported that the customers who were satisfied were willing to recommend others to use online mode of tourism agencies. Loyalty is regarded as a key consequence of Customer satisfaction (Anderson, Fornell &

Lehmann, 1994; Hsu, 2008; Dutta, Kumar Chauhan & Chauhan, 2017). Loyal customers visit aapp more often than new customers (Hsu, 2008). Also, satisfied customers are expected to share their favorable experiences with others, leading to positive WOM (Hsu, 2008).

A complaint can be thought of a dissatisfaction arising out of the negative feelings post consumption of a product. Wu & Ding (2007) were of the opinion that dissatisfaction led to three types of responses on the part of the customers, namely, voice responses (voicing out the complaints to the seller), private response (complain to friends) and switching to competitors. Hsu (2008) viewed complaint as a conflict between the customer and the organization. Anderson, Fornell & Lehmann (1994) was of the opinion, as the level of customer satisfaction increase the level of complaints decrease and vice versa. Also, the firms' effective complaint handling ability may lead to the creation of loyalists out of complainants which can be represented by a positive relationship between them (Anderson, Fornell & Lehmann, 1994).

Thus, the research questions for this study that have been identified were:

- Q1. What is the relationship between e-SQ, perceived trust and perceived value of online hotel booking apps?
- Q2. Whether e-SQ, perceived trust and perceived value have an impact on customer satisfaction of online hotel booking apps?
- Q3. Whether there is any relationship among customer satisfaction, customer loyalty and customer complaints?

Research Objectives:

- 1. To identify the relationship between perceived trust, e-SQ and perceived value of online hotel booking apps.
- 2. To identify the impact of perceived trust, e-SQ and perceived value towards customer satisfaction for online hotel booking apps.
- 3. To identify the relationship between customer satisfaction, customer loyalty and customer complaints for online hotel booking apps.

Hypothesis:

The following hypothesis have been formulated on the basis of the literature review and research objectives:

H1: The e-SQ is positively associated with the perceived trust for Online booking app.

H2: The e-SQ is positively associated with the perceived value for Online booking app.

H3: The e-SQ is positively associated with the customer satisfaction derived for Online booking app.

H4: The perceived trust is positively associated with the perceived value for Online booking app.

H5: The perceived trust is positively associated with the customer satisfaction offered by Online booking app.

H7: The perceived value is positively associated with the customer satisfaction offered by Online booking app.

H6: The perceived trust is positively associated with the customer loyalty for Online booking app.

H8: The customer satisfaction is positively associated with the customer loyalty of the Online booking app.

H9: The customer satisfaction is negatively associated with the customer complaint.

H10: The customer complaint is negatively associated with the customer loyalty.

Proposed Model

With the help of literature review, the following e-CSI model has been proposed for fulfilling the objectives of the study. The customer satisfaction is reflected by Perceived Trust, e-SQ and Perceived value as latent variables. In order to understand the impact of customer satisfaction for online hotel booking apps, customer loyalty and customer complaints have been included in the model. (Fig.1.)

3. RESEARCH METHODOLOGY

This study is exploratory in nature as it seeks to explore and identify the impact of the factors affecting customer satisfaction arising from the use of online hotel booking apps and apps. For this purpose, a survey questionnaire method has been implemented to gather information from the sample population.

3.1 Data collection and sampling

Online booking app, Oyo was used for the purpose of research. Thus, population for this study included all the inter-city as well as intra city visitors who have at least once booked room using

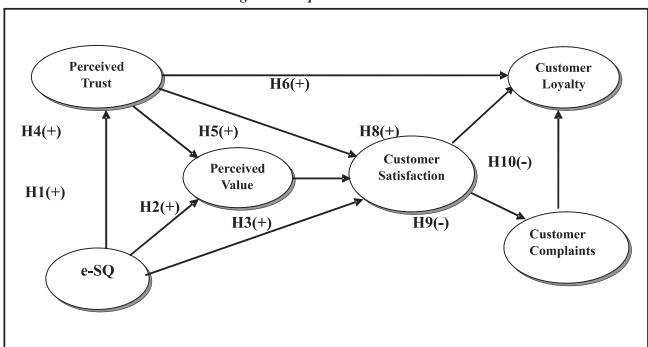


Figure 1. Proposed e-CSI Model

either online app of Oyo or its online booking app. Convenience sampling method of data collection was used. Data was collected through online mode. A structured questionnaire was sent online via. Emails, SMS and WhatsApp to the respondents. The questionnaire was formulated into two sections: the first section included the demographic profile of the respondents and the second section consisted of the main questions under the study. In addition to this, preliminary information was also provided about the purpose of the study in order to ensure that respondents had an idea as to what, why and who shall fill the questionnaire. The questionnaire consisted of a 5-point Likert scale. A total number of 310 responses were obtained out of which 269 were found to be effective after deleting unambiguous and incomplete responses. As per the rule of thumb, while conducting SEM analysis the sample size must have at least 15 responses per measured variable (Stevens, 2002). In this study, the measured variables were 17 indicating the adequate sample size to be at least 255 (17x15) or more. Hence, the sample size 269 was considered to be adequate for the study (Stevens, 2002).

3.2 Measurement variables used in the model

After extensive literature review, a survey questionnaire was developed. The majority of the questions were employed using previous tested scales wherever applicable with the adjusted questions. (Dutta, Kumar Chauhan & Chauhan, 2017; Hanafi, 2017; Hsu, 2008; Kim, Chung & Lee, 2011; Wu & Ding, 2007). All the questions consisted of a five-point Likert scale. Since, most commonly used Likert scale is a bipolar scaling method which measures either positive or negative responses to a statement, it consists of the following responses-Strongly disagree, Disagree, Neutral, Agree and Strongly Agree. A Likert scale must take into consideration at least five responses in order to be correct (Allen & Seaman, 2007).

The e-SQ construct was denoted by 3 e-SQ dimensions i.e., *App design, Responsiveness and Reliability*. All these e-SQ dimensions were represented with 3 items each: *App design* included items: (a) Information Availability (b) Attractiveness (c) Userfriendliness. *Responsiveness* included items: (a) Search load time taken by the app (b) Booking time (c) Time regarding cancellation. *Reliability* included items: (a) Similarity of room as shown

online (b) Facilities provided in the room (c) Customer support provided by the app. However, on the basis of factor loadings out of these 9 items only 5 items were applied to the study. Those factors which showed loadings less than 0.5 were discarded from the study. The factors having loading values above 0.50 were used for the study (Table 2). Hence, the final e-SQ construct was represented by denoted by five items namely (a) Information availability (b) User friendliness of the app (c) Similarity of room as depicted online (d) Search load time taken by the app and (e) Booking time using app.

The perceived trust construct consisted of items: (a) Trustworthiness of the app (b) whether the app cares for its customers and (c) Reliability of the app. The perceived value construct included: (a) whether this app offered good value for the price being charged and (b) Whether it was worth to book with this app given the quality. The customer satisfaction included: (a) whether the app met the needs of the customer and (b) the overall satisfaction derived from using this app. Customer loyalty was represented by: (a) how likely customers will recommend this app to others (b) whether this app is first alternative to choose from for meeting online booking requirements (c) how likely customers will encourage others to use this app. The final construct i.e. customer complaints included: (a) complained to the app officially using OYO resolver and (b) complained to friends. Therefore, the study included a total of 17 items. The factor loading of the items upon their respective constructs has been discussed below in Table 2.

4. RESULTS

4.1 Demographic profile of the respondents

The demographic characteristics of the respondents have been shown in Table 1 below. The data shows that approximately 60 percent of the total respondents who booked using online platform were males. Out of the total responses, 84.8 percent preferred booking using online platform of Oyo. 30.9 percent of the respondents who booked using online platform were self-employed which was also the highest percentage amongst profession followed by 26.4 percent and 21.9 percent for private sector and government

sector employees. Out of the total, most of the respondents belonged to the age group of 26-35 years with the percentage of 34.6. The demographic profile of respondents has been discussed below in Table 1.

Table 1. Demographic characteristics of respondents reliability and validity of data

Demographic Variables (N=269) Gender	Frequency	Valid Percent- age
Male	160	59.5
Female	109	40.5
Age		
25 or below	70	26.0
26-35	93	34.6
36-45	36	13.4
46-55	63	23.4
56 and above	7	2.6
Profession		
Private Sector	71	26.4
GovernmentSector	59	21.9
Self Employed	26	9.7
Student	83	30.9
Others	30	11.2
Preference of Online Booking		
Yes	228	84.8
No	41	15.2

For determining the reliability of scales Cronbach's alpha was used. Cronbach's alpha determines the internal consistency or average correlation of items in a survey (Santos, Lippke & Pope, 1998). The value of Cronbach's alpha for each construct was greater than 0.70 (Table 2) and hence acceptable (George & Mallery, 2003; Santos, Lippke & Pope, 1998). The reliability of each construct as well as factor loadings of each

item under all constructs has been discussed in Table 2.

Table 2. Reliability scales and item-construct loadings

Measurement Items	Factor Loadings
Perceived Trust (Cronbach's alpha=0.879)	
It is trustworthy app	0.853
The app cares about its customers	0.813
The app is reliable	0.859
Perceived Value (Cronbach's alpha=0.717)	
App offers good value for the price	0.668
It is worth to book hotel using this app	0.838
Customer Satisfaction (Cronbach's alpha=0.778)	
This app met the needs of the customer	0.781
Overall satisfaction derived by the customer	0.819
e-SQ (Cronbach's alpha=0.832)	
Information availability on app	0.631
Search load time taken by the app	0.759
User friendliness of the app	0.717

Measurement Items	Factor Loadings
Similarity of room as shown on app	0.694
Time taken for booking room through this app	0.736
Loyalty (Cronbach's alpha=0.894)	
How likely to recommend thisapp to others in future?	0.834
Whether the app is first alternative to choose for online booking?	0.915
How likely to encourage others to use this app?	0.803
Complaints (Cronbach's alpha=0.732)	
Whether complained formally through OYO resolver?	0.744
Whether complained to friends about the app?	0.779

In order to test the model, structural equation modeling technique (SEM) has been applied which makes use of a two-step approach for model testing (James, Mulaik, Brett, 1982). Two-step model testing approach involves analysis of two conceptually distinct models: (a) the measurement model and (b) the structural model. According to James, Mulaik, Brett (1982), the researcher must determine whether the measurement model or the observed variables measures the latent construct accurately or not. Therefore, in order to validate the study, Confirmatory Factor Analysis (CFA) was conducted using AMOS 21. In order to assess the construct validity, Campbell & Fiske (1959), proposed two aspects Convergent validity and Discriminant validity.

Hence, first of all composite reliability (CR) was calculated, which is considered as less biased

estimate of reliability than cronbach's alpha (Fornell & Larcker, 1981). The value of CR for each construct was greater than the acceptable value of 0.7 (Table 3). Second, in order to assess the convergent validity of the latent variables, the most common criterion of Fornell & Larcker (1981) was used i.e. Average variance extracted (AVE) which is calculated as average of the squared loadings of the all the items representing a latent construct. The AVE measures the level of variance captured by the construct as compared to the level of measurement error. The value of AVE was greater than 0.5 which is the threshold value (AVE>0.5) (Hu & Bentler, 1999) (Table 3).

Table 3. Establishing Discriminant Validity

Measure- ment Item	E-Sq	Perce- ived Trust	Perce- ived Value	Customer Satisfa- ction	Comp- laints	Loyalty
e-SQ	0.709 ^a					
Perceived Trust	0.180	0.842				
Perceived Value	0.245	0.619	0.758			
Customer Satisfaction	0.323	0.616	0.699	0.800		
Complaints	-0.308	-0.040	-0.165	-0.303	0.762	
Loyalty	0.240	0.676	0.571	0.323	-179	0.852

^avalues in bold diagonals represent the squared roots of average variance extracted.

The measurement model fit summary: CMIN=206.754, df=104, CMIN/DF= 1.988, CFI=0.953, SRMR= 0.043, RMSEA=0.061, AGFI=0.881, TLI=0.939, NFI=0.911

Finally, in order to assess the discriminant validity, the square roots of AVE was used (Fornell & Larcker, 1981). The discriminant validity measures the level a latent construct differs from other constructs. The square roots of AVE of each construct, represented in diagonal values (bold items in Table 3) were greater than the correlation coefficients between the constructs. This indicated the construct was more strongly correlated with its own items than other constructs (Table 3). Based upon these results, it was concluded that the study exhibited sufficient evidence of convergent and discriminant validity and we could proceed with the structural assessment of the model.

4.2 The hypothesized causal structural model assessment

The results of the estimation of hypothesized causal structure model indicated that the model was accurate (TLI= 0.937; NFI= 0.905; and CFI= 0.949; GFI= 0.914). All the values were more than 0.9 which is considered as the threshold value and hence indicated satisfactory fit (Hu & Bentler, 1999). However, the value of AGFI was 0.879 which was a little lesser than the threshold value of 0.9 and hence it was accepted. The goodness of fit indices of the hypothesized model were Chi-square test value= 220.850, (p > 0.05) which is desirable, df= 109, CMIN/df= 2.026, GFI= 0.914, RMSEA= 0.060, SRMR=0.057 (Table 4).

Table 4. Goodness of fit measures of the hypothesized model

Goodness of fit statistics	Values	Cut off Criteria
Absolute Fit Measures		
Chi-Square test	220.850	p > 0.05
Degrees of freedom	109	≥ 0
GFI	0.914	> 0.90
Chi-square / degrees of freedom	2.026	Between 1 and 3
RMSEA	0.060	< 0.06
Incremental Fit Measures		
AGFI*	0.879	> 0.90
TLI	0.937	> 0.90
NFI	0.905	> 0.90
CFI	0.949	> 0.95

^{*}AGFI= Adjusted good-of-fit index, TLI= Tucker-Lewis index, NFI= Normed fit index, CFI= Comparative fit index

The structural model was finally assessed with the help of path estimates which are represented by way of standardized regression weights of latent variables in the study. The following figure shows the results of the SEM analysis conducted in AMOS 21.

Table 5 clearly shows the standardized regression weights obtained through the analysis. As per the results, e-SQ, perceived trust and perceived value had a significant positive impact on the customer

satisfaction with the regression weights +0.168, +0.281, +0.479 respectively and hence, H3, H5, H7 were accepted. This implied that all three i.e., e-SQ, perceived trust and perceived value were antecedents of customer satisfaction.

Also, e-SQ with value +0.1.39 and perceived trust with a value +0.594 had a significant positive impact on perceived value, clearly indicating that for online booking app, its perceived trust had more impact towards its perceived value. In addition, e-SQ positively impacted perceived trust with standardized regression weight = 0.180. Hence H1, H2 and H4 were also accepted.

As per the path estimates, there was a significant positive relationship between customer satisfaction and customer loyalty with value 0.504, indicating that the level of customer satisfaction derived from booking online using Oyo helped in creation of customers' loyalty towards the app. Therefore, H8 was accepted.

Table 5. Standardized regression weights

			Estimate
Trust	<	eSQ	.180
PV	<	Trust	.594
PV	<	eSQ	.139
CS	<	PV	.479
CS	<	eSQ	.168
CS	<	Trust	.281
Complaints	<	CS	290
Loyalty	<	CS	.504
Loyalty	<	Trust	.368
Loyalty	<	Complaints	024

Perceived trust also had a significant positive association with customer loyalty with regression weight 0.368 which led to the acceptance of H6. Also, customer satisfaction was found to be negatively associated with customer complaints (-0.29) which was consistent with the hypothesis and hence H9 was accepted. Online booking app's customer complaints were found to be negatively associated with customer loyalty with regression weight -0.024. Hence, H10 was also accepted.

Therefore, the path estimates indicated that all the

Figure 2. Structural Model

hypothesized statements could be accepted for the online booking app (Figure 2).

In addition to this, the total effects of antecedents i.e, e-SQ, perceived trust and perceived value on overall customer satisfaction was 0.33, 0.56 and 0.479 respectively. This implied that antecedent perceived trust had greatest impact on the customer satisfaction. Also, the values of R squared indicated that factor customer satisfaction displayed 55% of the variance whereas factor customer loyalty displayed 62% of the variance in the entire model.

5. CONCLUSION AND DISCUSSION

The aim of this study was to identify the factors influencing the customer satisfaction of hotel booking apps. The study also looked at the positive (loyalty) and negative (complaint) consequences of customer satisfaction. The results indicated that e-SQ, Perceived trust and Perceived value can be considered as important antecedents of customer satisfaction in context of online hotel booking industry which is consistent with previous studies.

The close association between the three is also important for the e-commerce managers. Not only this, but the results also showed that in online platform of hotel booking, perceived trust which acts a factor leading to customer satisfaction can also lead to customer loyalty. Due to intangibility component of the online apps, perception about trust plays a significant role in generating confidence. It helps in creating perceived value. Trust, also plays a significant role in creating loyalty amongst the customers. Thus, ensuring long-term relationship between the company and the customer. Hence, managers of online hotel booking apps should ensure building of trust towards their app.

The study also showed that e-SQ positively affects the perceived trust amongst the customers. This implies that online tourism companies by way of improving e-service quality shall be able to improve the perceived trust and vice versa. Major e-SQ indicators identified by the respondents were: search load time taken by the app, booking time using app and user friendliness of the app

with factor loadings of 0.759, 0.738 and 0.718 respectively, leading to the satisfaction from the online app. This implies that in online environment where the customers face continuous dilemma of choosing amongst various apps to avail online hotel booking services, the online hotel booking companies by way of improving their app design and responsiveness can create customer satisfaction. This is consistent with previous studies (Hanafi, 2017; Ho & Lee, 2007; Zeithaml, Parasuraman & Malhotra, 2002). This means hotel booking apps must focus on the channel most by which the customers will be made aware about the services. The emphasis should be laid on providing the accurate information in the easiest manner by improving the app quality features.

The study also showed the significance of perceived trust for the online tourism industry. As per the results of the study, in online environment perceived trust towards the app acts as one of the most important pillars of customer satisfaction. The customers found Online booking app to be reliable, trustworthy and caring as well. Hence, the online booking companies must seek to improve perceived trust of customers regarding their products and services. For this, the companies must understand that unless they improve the customers' beliefs about the technology-based transactions; they won't be able to turn the visitors into customers. The positive association between perceived trust and loyalty further helps to understand the association between an antecedent and consequence of customer satisfaction. This implies that high perceived trust in the hotel booking app can lead to the creation of repurchase intention from the app. Therefore, it becomes imperative for online tourism operators to emphasize on trust building for customers.

Also, Trust as well as e-SQ not only directly influenced the customer satisfaction but also indirectly via. perceived value. The results showed that perceived trust and e-SQ were positively associated with perceived value which is nothing but a trade-off between benefits and costs, a procedure opted by the customers, in order to derive satisfaction. This implies that customers felt that the decision to book using Online booking app was wise and for subsequent booking they feel better to book using this app. A possible explanation for this could

be that in an online set up it is easier for the customers to compare prices as well as benefits in terms for e-SQ features which they receive from a particular app. The results were consistent with previous studies.

The study also shed light on the consequential part of the customer satisfaction. The positive association between customer satisfaction and customer loyalty indicated that customers who were satisfied with the online booking app found it to be suitable for using the app as their first choice for online booking, for recommending the app to others and encourage others to use the app. The customers now-a-days tend to exchange feedback rapidly online in the form of customer reviews. The rapidness of the internet requires the companies to always keep a close check on the customer reviews in order to understand which areas should be worked upon if any. The results of the study also indicated that Online booking app receives complaints from its customers which indicate that it needs to improve its efficiency while providing its services. The company should try to be more efficient in order to reduce dissatisfaction amongst the customers.

6. REFERENCES

Abdullaha, D., Jayaramanb, K., Kamala, S. (2016). A Conceptual Model of Interactive Hotel App: The Role of Perceived App Interactivity and Customer Perceived Value Toward App Revisit Intention. *Procedia Economics and Finance*, 37, 170–175.

Akhila, S., and Manikandan, C. (2018). A study on growing trends of online hotel booking, *International Journal of Commerce and Management Research*, 4(3), 09-15.

Allen, I.E., and Seaman, C.A. (2007). Likert scales and data analyses. *Quality progress*, 40, 64-65.

Anderson, E.W., Fornell, C., and Lehmann, D.R. (1994). Customer Satisfaction, Market Share, and Profitability: Findings from Sweden. *The Journal of Marketing*, 58, 53-66

Bonsón Ponte, E., Carvajal-Trujillo, E., and Escobar-Rodríguez, T. (2015). Influence of trust

and perceived value on the intention to purchase travel online: Integrating the effects of assurance on trust antecedents. *Tourism Management*, 47, 286–302.

Campbell, D.T., and Fiske, D.W. (1959) Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological bulletin*, 56-81.

Crockett, S.A. (2012). A Five-Step Guide to Conducting SEM Analysis in Counseling Research. *Counseling Outcome Research and Evaluation*, 3(1), 30–47.

Dargah, D. B. and Golrokhsari, H. (2012). E-tourism and Customer Satisfaction Factors. *International Journal Advances in Management Science*, 1, 35-40.

Deng, W.J., Yeh, M. L., and Sung, M. L. (2013). A customer satisfaction index model for international tourist hotels: Integrating consumption emotions into the American Customer Satisfaction Index. *International Journal of Hospitality Management*, 35, 133-140.

Devaraj, S., Fan, M. and Kohli, R. (2002). Antecedents of B2C channel satisfaction and preference: validating e-commerce metrics. *Information Systems Research*, 13(3), 316-33.

Dutta, S., Kumar Chauhan, R., and Chauhan, K. (2017). Factors affecting customer satisfaction of online travel agencies in India. *Tourism and Hospitality Management*, 23(2), 267–277.

Dutta, S., Kumar Chauhan, R., and Chauhan, K. (2017). The impact of electronic service quality's dimensions on customer trust for online travel agencies in India. *Turizam.* 21 (3). 111-122.

Fornell, C., and Lacker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18, 39–50.

Fornell, C., Johnson, M.D., Anderson, E.W., Cha, J. and Bryant, B.E. (1996). The American Customer Satisfaction Index: nature, purpose, and ûndings. *Journal of Marketing*, 60, 7-18.

George, D., and Mallery, P. (2003). Using SPSS for Windows Step by Step: A Simple Guide and Reference (4th ed.). London: Pearson Education.

Hanafi, Muh. (2017). Evaluation of e-Service

Quality, Perceived Value on Customer Satisfaction and Customer Loyalty: A Study in Indonesia. *International Business Management*, 11(11), 1892-1900.

Ho, C.I., and Lee, Y.L. (2007). The development of an e-travel service quality scale. *Tourism Management*, 28. 1434-1449.

Hsu, S.H. (2008). Developing an index for online customer satisfaction: Adaptation of American Customer Satisfaction Index. *Expert systems in application*, 34 (4), 3033-3042.

Hu, L. T., and Bentler, P. M. (1999). Fit indices in covariance structure modeling: Sensitivity to under parameterized model misspecification. *Psychological Methods*, 3(4), 424–453.

Hu, L., and Bentler, P.M. (1999). Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives. *Structural Equation Modeling*, 6(1), 1-55.

James, L. R., Mulaik, S. A., and Brett, J. M. (1982). *Causal analysis: Assumptions, models, and data (Vol. 1)*. Beverly Hills, CA: Sage.

Kandampully (2008). Antecedents of Customer Satisfaction with Online Travel Services. *European Business Review*, 20(1), 4-19

Kim, M.J., Chung, N., and Lee, C.-K. (2011). The effect of perceived trust on electronic commerce: Shopping online for tourism products and services in South Korea. *Tourism Management*, 32(2), 256–265.

Kuang, H., and Yang, J. (2011). Empirical Analysis on Hotel Online Booking Consumer's Satisfaction with E-service of App. Paper presented at the 2011 International Conference on Information Management, Innovation Management and Industrial Engineering, Shenzhen, 193-196.

Lee, Y. C., Wang, Y. C., Lu, S. C., Hsieh, Y. F., Chien, C. H., Tsai, S. B., and Dong, W. (2016). An empirical research on customer satisfaction study: a consideration of different levels of performance. *Springer Plus*, 5(1), 1577.

Nunnally, J. C. (1978). *Psychometric theory*. New York: McGraw-Hill.

Sánchez-Rebull, M.-V., Rudchenko, V., and Martín, J.-C. (2017). The Antecedents And Consequences of Customer Satisfaction In Tourism: A Systematic Literature Review", *Tourism and Hospitality Management*, 24(1), 151-183.

Santos, J.R.A., Lippke L., and Pope P. (1998). Cronbach's Alpha: A tool for Assessing the Reliability of Scales. *Tools of the Trade*, 37(2).

Stevens, J. P. (2002). *Applied multivariate statistics* for the social sciences. Mahwah, NJ: Lawrence Erlbaum.

Suwunniponth, W. (2013). Tourist Satisfaction and Loyalty toward Service Quality of the Online Tourism Enterprises. *International Journal of Economics and Management Engineering*, 7(8). 2461-2462

Wu, K.W., and Ding, M.C. (2007). Validating The American Customer Satisfaction Index Model In

The Online Context: An Empirical Study Of U.S. Consumer Electronics E-Tailers, *International Journal of Business and Information*, 2, 199-220

Yang, Z., and Fang X. (2004). Online service quality dimensions and their relationships with satisfaction: A content analysis of customer reviews of securities brokerage services. *International Journal of Service Industry Management*, 15 (3), 302–326

Zeithaml, V.A. (1988). Consumer Perceptions of Price, Quality and Value: A Means-End Model and Synthesis of Evidence. *Journal of Marketing*, 52, 2-22

Zeithaml, V.A., Parasuraman, A., and Malhotra, A. (2002). Service quality delivery through apps: A critical review of extant knowledge. *Journal of the Academy of Marketing Science*, 30(4), 362-376.