Impact of E-service Quality Factors on Customer Satisfaction: A Study of Indian Online Tourism Industry

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Abstracts

The evolvement of online tourism services has transformed the industry. There has been massive increase in online bookings during the last decade. But along with this immense competition has evolved due to mushroom growth of E-tourism service providers in India. Therefore it has become necessary for online tourism providers to deliver excellent quality service which would lead to customer satisfaction. Through this paper an attempt has been made to determine the effect of four factors of E-service quality in customer satisfaction in Indian Online Tourism Industry. The results indicated a significant impact of three factors on customer satisfaction.

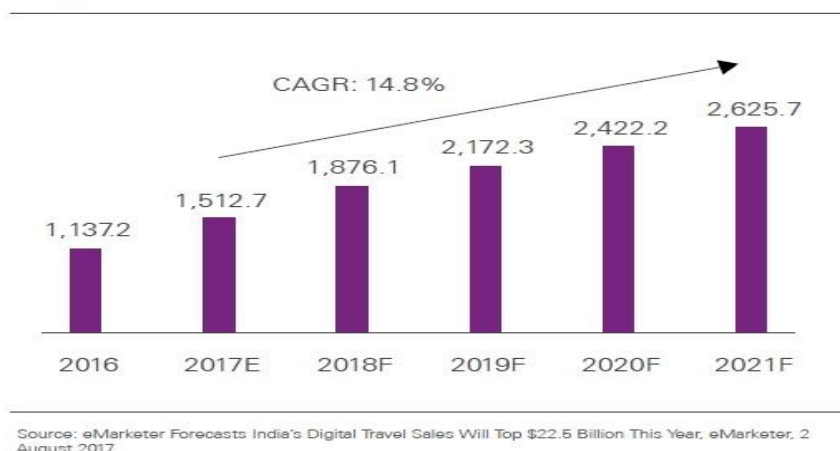**Key Words:** online tourism, E-Service Quality, customer Satisfaction, services

Introduction

Due to speedy expansion of worldwide web in India, E-Tourism services have become an important aspect of online services. Online tourism services have reformed the tourism services with the help of technology. Web tourism service providers in many countries are trying to provide customer focused services because of competitive and vibrant business scenario. These days' customers prefer easy, supple and convenient services which traditional methods of services could not offer. Availability of comfortable, flexible and convenient options of e-booking has been appropriately set up in the globalised world.

E-Service quality has become a major aspect of customer satisfaction. Many authors have stated that with ample options accessible to customers, it has become difficult to retain and gain customers. The other alternative of online bookings is just a click away. Customers nowadays are well aware of the changing trends in technology, e-commerce and e-marketing. Therefore customer satisfaction has become important nowadays due to mushroom growth of web service providers. To grow as well as sustain in the market, the E-tourism industry needs to emphasize on cost reduction along with quality up gradation. A significant issue among the for online tourism service providers is overall customer contentment.

Source: eMarketer Forecasts India's Digital Travel Sales Will Top $22.5 Billion This Year, eMarketer, 2 August 2017

Fig 1: Forecasts of India's travel Sales 2017-2021 (INR Billion)

The worldwide travel and hospitality segment is focused on new digital inclinations and technologies engrossed at improving customer familiarity and convenience and letting companies to operate in a more competent manner. Digitization has brought a transformation in travel industry. The preceding couple of decades have observed a substantial upsurge in the share of online travel. The graph (Fig 1) shows digital travel sales in India to the tune of 1,137.2 INR billion in the year 2016. Emarketer forecasts have projected an increase in online travel sales at compounded annual growth rate of 14.8% from 2017-2021. Tourism industry, which is budding rapidly, transmits economic importance for India. According to World Travel and Tourism Council Report 2016, the industry contributed 9.4% of nation's GDP. The foreign and domestic tourist arrival registered an annual growth rate of 9.7% and 12.6% in 2016 over the year 2015. India ranked 25th in the world in terms of tourist arrivals. This shows the smokeless industry is evolving at a greater pace. ICT has brought about a transformation in tourism industry. The proliferating diffusion of internet and mobile has altered the mode of travel usage by today's technology perspicacious consumer.

Service Quality to E-Service Quality

Service Quality is defined as an overall assessment of service by customers (Ganguli & Roy, 2010). Perceived service quality results from a comparison of customer's prior expectations after the actual experience of the service encounter (Parasuraman, Zeithmal & Berry, 1985). If perceptions exceed expectations, it results in satisfaction and vice versa. The technology has made a shift from traditional service quality to e-service quality. From online outlook e-service quality is defined by Santos (2003), *E-service quality as a customer's perceptions judgments and evaluation of the quality of services acquired from an online shopping website*. Purchasing goods and services on Internet involves absence of

person to person contact and is replaced by human technology interaction. This element involves looking into other proportions in electronic service context like ease of use, security and customization.

Literature review

a. E-Service Quality

Madu and Madu (2002) identified factors that customers use to judge the quality of a Business to consumer B2C service process. Based on the review of literature the 15dimensions for e-quality were identified- performance, features, structure, aesthetics, reliability, storage capability, serviceability, security and system integrity, trust, responsiveness, product/ service differentiation and customization, web store policies, reputation, assurance, empathy.**Wolfinbarger and Gilly (2003)** formed the elements of eTailQ. The main objective of the study was to find out features of e-tailQ that help to increase consumer satisfaction and provide them a great quality online shopping experience. Using exploratory and confirmatory factor analysis four factors (fulfillment/reliability, website design, Security/Privacy and customer service were extracted. Fulfillment/reliability and website design were most significant determinants of quality. **Parasuraman et.al. (2005)** conducted study to develop and design two multiple item scale (E-S-QUAL to form opinions of customers with respect to online service quality and E-RecS-QUAL It was concluded that efficiency and fulfillment are the most critical and important dimensions of web service quality as well as perceived value and loyalty intentions. Further system availability and privacy dimension do

significantly influence customer's evaluation of overall quality perceived value and loyalty intentions **Ho and Lee (2006)** recognized the dimensions of e-travel service quality. Factor analysis was conducted and five factors were extracted- website functionality, responsiveness and fulfillment, customer relationship, information quality and security. The study found that website functionality and customer relationship were most imperative factors in evaluating e-travel service quality. The study further found that customer relationship, responsiveness, information quality and security were also considered important determinants by customers while assessing online service quality. **Lee & Lin (2006)** suggested five e-service quality dimensions- website design, reliability, responsiveness, trust and personalization. The results indicated the positive effect of trust, reliability, responsiveness and website design on overall service quality and customer satisfaction. Out of these dimensions, the strongest impact on overall service quality and satisfaction was that of trust. The results further indicated that personalization did not impact overall service quality significantly. The study found a positive association between overall service quality, satisfaction and purchase intentions.

Tsang et.al. (2010) investigated the elements used by online consumers to appraise the e-service quality of online travel agencies. . Factor analysis was conducted and six factors were extracted (website functionality, information content and quality, fulfillment and responsiveness, safety and security, appearance and

presentation and customer relationship. It was concluded that website functionality as most important aspect of e-service quality followed by information quality and content.

b. Customer Satisfaction

Online environment lack of face to face interface with tourism service providers. Therefore more efforts are needed to build customer satisfaction. Satisfied customer spreads a positive word of mouth and helps increase profits. According to Kotler "Satisfaction is a person's feeling of pleasure or disappointment resulting from comparing a product's perceived performance (or outcome) in relation to his or her expectations" There is a strong relation between satisfaction and what customer belief or expectations. The lesser the gap is between the consumers' expectations and the actual performance of the product or service, the higher is the consumer's satisfaction. Fornell states that high satisfaction results to customers with increased loyalty, less prone to be approached from competition. Customer satisfaction includes customer retort to gratification and consumer judgment regarding the satisfied state.

Over the years there has been upsurge in online business but many online companies are going out of business as they are unable to retain the customers. This is because they are not providing with satisfactory electronic service quality. It is easy for customer to switch to other websites as there is no cost involved. Web providers need to provide superior online quality in order to satisfy, and win customer's loyalty. Customer Satisfaction is indispensible which helps in creating and influencing long-standing

rapport between the company and customer both in traditional and online industry. Consumer satisfaction plays an important role towards the development and growth of the companies (Anderson et.al, 1994). Satisfaction has a countless impact on online consumer. Consumer satisfaction in online market is defined as "long-term, developing construct influenced by customer's e-service expectation and quality perceptions changing over time, based on new consumer experience and knowledge." (Lliachenko 2006).

Relationship between E-Service Quality and Customer Satisfaction

In online context, Anderson & Srinivasan (2003) defined electronic satisfaction as the contentment of customer with respect to their prior purchasing experience with a given electronic commerce corporation. E-satisfaction is customer 'contentment with pleasurable feelings with e-services. Customers can easily switch to other websites in spite of their pleasant experience. So the travel companies need to provide them with greater contentment with the travel booking experience. Bernard et.al. (2013) investigated the impact of e-service quality and e-recovery on satisfaction. The researcher also studied the impact of electronic recovery quality on satisfaction in e-travel services. E-Service Quality and E-Recovery had positive impact on satisfaction. But the impact of E-Service Quality on satisfaction was more as compared to E-Recovery Quality. Doost & Ashrafi (2014) discussed the impact of online service quality dimensions on customer's satisfaction in Banking Industry. Seven dimension of online service quality

were considered (efficiency, reliability, fulfilment, responsiveness, privacy and empathy). The results of study showed a significant positive relationship of empathy, responsiveness and privacy factors whereas the dimensions such as efficiency, reliability and fulfilment showed no relation to customers' satisfaction. Lee & Wu (2010) explored the customer's perception of e-service quality and its relationship with online service satisfaction in airline service websites. The study also investigated the moderating role of perceived trust and usefulness in the relationship between e-service quality, perceived service value and service satisfaction. . The results of the study indicated that trust and usefulness plays a moderating role in service satisfaction. Mohammed et.al (2016) identified the e-tourism areas which affected e-satisfaction. The author also investigated the difference in tourist's satisfaction according to the demographic characteristics. For the purpose of study, a conceptual model was developed based on past studies. Six dimensions of e-service quality were taken which included efficiency, information quality, interactivity, customer service, reliability and privacy. Interactivity and reliability were the most important factor influencing e-satisfaction whereas privacy and efficiency affected e-satisfaction the least. In the web world, online service quality has emerged an important dimension upon which the accomplishment/ failure of the travel web service providers as well the satisfaction of the consumers depends. E-tourism providers are progressively delivering online services. It has become important for these companies to deliver superior online quality services in order to satisfy and retain the customers and increase their profitability.

Objectives of the Study

The main objective of the study is to determine the impact of E-Service Quality factors on Customer Satisfaction in Indian E-Tourism Industry.

Research Methodology

a. This section represents the research methodology which has been used in this research study. The information for the purpose of study has been collected from primary as well as secondary sources. The data has been collected with the help of a structured questionnaire. Snow ball sampling technique has been adopted for collecting the data because only those customers were contacted who had done online bookings of hotels or purchased travel packages through websites anywhere in India. The research study has been conducted in the states of Punjab and Chandigarh. The sample consisted of 496 respondents. The dimensions of the E-Service Quality in E-Tourism has been adopted from studies of and Customer Satisfaction items have been measured on the basis of 5-point Likert-scale ranging from 5 (Strongly Disagree) to 1 (Strongly Disagree). The data collected has been analysed with the help of 19.0 version of SPSS software.

b. Measurement Instruments

To determine the impact of E-Service Quality on Customer Satisfaction, E-service Quality items have been adopted from Ho and Lee (2006), Tsang et.al. (2010), Wolfinbarger and Gilly (2003), Parasuraman

et.al. (2005), and Customer Satisfaction items have been adopted from Basker and Ramesh (2010) scale. The questionnaire contained 30 statements with respect to perceptions of customers in the context of E-service quality in Online Tourism Industry and their satisfaction (5 statements). Regression statistical technique has been applied to assess the impact of E-Tourism E-Service Quality on Customer Satisfaction in India.

c. Reliability and Validity

In order to check the reliability of the scale, Cronbach alpha measure technique has been applied. The reliability coefficient of E-Service Quality has been .862 and for Customer Satisfaction has been .897. The questionnaire used has also been verified with the help of content validity (face validity). For this purpose, the opinion of experts in the tourism industry and literature review in E-tourism Industry has been systematically evaluated to determine validity of scale selected for measurement.

Results and Discussion

On the basis of referred scale, four null hypotheses have been formed. Through regression analysis, the impact of the four dimensions (Information, Responsiveness, Design and Security) on Customer Satisfaction has been investigated.

$H0_1$: Information has insignificant impact on customer satisfaction

$H0_2$: Responsiveness has insignificant impact on customer satisfaction

$H0_3$: Design has insignificant impact on customer satisfaction

$H0_4$: Security has insignificant impact on customer satisfaction

The regression model is as follows

$Y = \beta + \beta_1 + \beta_2 + \beta_3 + \beta_4 + \varepsilon$

Where the dependent variable is satisfaction of the customers denoted by Y and independent variables are: Information (β_1), Responsiveness (β_2), Design (β_3) and Security (β_4). The error term ε contains the extraneous variables aside from independent variables that determine the value of the dependent variable (Y) for a specific observation. Regression results have been shown in Tables below

Table: 1

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.276[a]	.076	.069	7.41045

a. Predictors: (Constant), Security, Responsiveness, Design, Information

Table 1, shows that $R^2 = 76$ percent and adjusted $R^2 = 69$ percent which means existing model has explained 69 percent variance in dependent variable which has been caused by independent variables.

Table 2

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2221.032	4	555.258	10.111	.000[a]
	Residual	26963.128	491	54.915		
	Total	29184.159	495			

a. Predictors: (Constant), Security, Responsiveness, Design, Information

b. Dependent Variable: Satisfaction

F-value of the model has been found to be significant at 1% level of significance showing that model is best fit to use and model is significant in explaining variation in the dependent variable

Table 3

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	20.381	1.605		12.698	.000		
	Information	.137	.062	.169	1.541	.002***	.549	1.820
	Responsiveness	.129	.046	.160	2.777	.006***	.567	1.762
	Design	.114	.072	.083	1.575	.116	.682	1.467
	Security	.364	.112	.168	3.248	.001***	.703	1.422

a. Dependent Variable: Satisfaction

*** indicates significant at 1% level

The regression results has indicated that the impact of four dimensions of E-Service Quality in Online Tourism on Customer Satisfaction. In the present study, it has been exemplified that out of four dimensions; three dimensions have significantly influenced customer satisfaction. Information (β=.169, p=.002); Responsiveness (β=.160, p=.006); and Security (β=.168, p=.001) have found to be significant at 1 percent level of significance.

With advancement in technology, more and more services are delivered on the web. VIF (Variance Inflation Factor) has been used to check the condition of multi collinearity. It shows that multi collinearity is under the tolerance limit or there is no multi collinearity has been observed. Generally, 10 have been proposed as cut throat value for checking the VIF for research purpose. (Kutner et al, 2004).

Table 4
Summary of Regression Results

	Hypotheses	Results
$H0_1$ $H0_2$ $H0_3$ $H0_4$	**Information has insignificant impact on customer satisfaction**	**Null hypothesis may not be accepted**
	Responsiveness has insignificant impact on customer satisfaction	**Null hypothesis may not be accepted**
	Design has insignificant impact on customer satisfaction	**Null hypothesis may be accepted**
	Security has insignificant impact on customer satisfaction	**Null hypothesis may not be accepted**

The regression results in table 4 have indicated that out of four dimensions, three dimensions have been found to significant in influencing customer satisfaction. Information, Responsiveness and Security are major elements that strongly lead to customer satisfaction of customers who perform online travel bookings in India. Website design has been found to have insignificant impact on satisfaction. The results indicated that providing quality services will increase satisfaction level of the customers when they book hotels or tour packages online. In order to convert prospects into consumers, web service providers should make all efforts to provide good, correct and customized information on their website so that it becomes easy for customers to do online bookings hassle free. By providing best quality and differentiated e-services, the e-tourism website companies can satisfy and retain customers.

Conclusion, Recommendation & Managerial Implications

It has been concluded that information, responsiveness and security are major aspects that intensely influence customer satisfaction in E-Tourism Industry. Design factor has insignificant influence on customer satisfaction. Superior web service quality augments the proficiency of E-Tourism services. Online tourism service providers have to look into all aspects of web services. E-tourism services has provides easy and convenient way for employees as well as customer to deliver and receive receives. But web providers should provide quality information about the hotels, tour packages as well as availability of other services which would satisfy the customers and make them loyal. The results reveal that when consumer's experience while doing booking on a particular website is not good and his expectation are not met, they feel unhappy. Online tourism service providers can overcome the barrier of unhappy feelings of customers by understanding the demand of the customers, buildings trust and providing a happy experience during online booking.

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