

**MEASURING RELATION AMONG E-SERVICE
QUALITY, CUSTOMER'S SATISFACTION AND
INTENTION TO PURCHASE:
(AN INVESTIGATIVE STUDY ON CUSTOMERS OF
ONLINE AIR TICKET SERVICE IN INDIA)**

Vivek Agrawal*

Vikas Tripathi **

Sucheta Agrawal ***

Abstract

Due to advancement in information technology all the airline companies using the internet and developing their websites. So e-service Quality has become an important issue for the companies to attract the customers and retain them, because now-a-days companies are not making their websites for providing the information but also to provide booking facility of online air ticket. The main aim of this paper to measure the relationship between e-service quality, satisfaction and purchase intention among customers and the sample for this study were collected from 150 customers in Agra & Mathura region, who are using the facility of online air ticket booking. Five dimensions of e-service quality were considered namely- ease of use, assurance, responsiveness, website design and responsiveness. Cronbach's Alpha used to check the reliability. Result from the multiple regression showed that all five dimensions significantly positive effect on customer satisfaction and customer satisfaction has positive effect on purchase intention. Ease of use and website design was considered as the most important factor or contributor to customer satisfaction.

Key words: customer satisfaction, e-service quality, purchase intention, online air ticket

* Research Scholar, GLA University, Mathura.

** Associate Professor, GLA University, Mathura.

*** Assistant Professor, GLA University, Mathura.

Introduction

With the advancement in information technology; the online shopping becoming popular, Due to this business organization globally try to enhance their competitive advantages by focusing on the virtual market place. In airline industry also customers are using the facility of online e-ticket booking. So due the technology we can see that now the behaviour of the customers, attitude, perception etc. has been changed towards the companies. There are so many advantages in purchasing the online ticket. Consumers have to pay lower amount for e-ticket as compared to purchasing from a travel agent. Airline Companies also trying to provide better services to their customers to reduce their cost, expend their revenue and maintaining the data base of the customers for future reference to maintain the relationship. So e-service quality plays a vital role in improving the customer base for increasing the revenue. There have been number of studies on e-service quality in different country, at different market place by using different models as well as by using different variables (Gwo-Guang and Hsiu-Fen, 2005; Lociacono et al. 2000; Liu and Arnett, 2000). Gwo-Guang and Hsiu-Fen (2005) tested the e-service quality in Taiwan with different variables such as website design, reliability, responsiveness, trust and personalization on customer satisfaction and purchase intention in online book stores. Liu and Arnett (2000) explore find dimensions in their research which includes service, security, quality of information, playfulness perceived by customer and design of the company website. Both studies use different dimensions and explored different business online business settings. But there is lack in the studies which provide a clear view regarding the impact of e-service quality towards purchasing behaviour in the context of online air ticket booking in India offered by airline operators (Teck-Chai Lau et al., 2011). Therefore the purpose of this study is to investigate the relationship in e-service quality, customer satisfaction and purchase intention of customers in online purchasing of air ticket.

Literature Review

Yang (2001) and Zeithaml et al. (2001) suggests that if the companies are using website for the customer's benefits then e-service quality is the main determinant for the success and failure of the business. Increased e-service quality could help online companies to be more appealing and effective which subsequently help them to achieve higher level of satisfaction and retention of the customers (Gronroos et al., 2000). According to Yang (2001), high quality of e-service means high standards of services for the customers. It is very easy to

compare the features of any product and price also online than traditional methods, so e-service quality plays a vital role for the online customers (Santos, 2003). Gwo-Guang and Hsiu-Fen (2005) examined the relationship among e-service quality dimensions, overall e-service quality, purchase intention and customer satisfaction. This research proposed five dimensions of e-service quality, they are

1. Website design
2. Reliability
3. Responsiveness
4. Trust and
5. Personalization

The result was reliability, website design, trust and responsiveness affect the customer satisfaction and service quality and customer satisfaction and the overall service quality were significantly related to the purchase intention of the customers.

Ribbink et al. (2004) focused on examining the dimensions of e-service quality, e-satisfaction, e-trust and e-loyalty in the context of online books and online CD stores. They find e-trust and e-satisfaction influences the loyalty of the customers. The other dimensions in their research such as ease of use, customization and responsiveness indirectly affect e-loyalty through e-satisfaction and e-trust.

For measuring e-service quality Zeithaml, Parasuraman & Melhotra (2001) have developed e-service quality dimensions, with the help of series of focus group interviews and on the traditional service quality these were – access, ease of navigation efficiency, flexibility, reliability, personalization, security/privacy, responsiveness, trust/assurance, aesthetic and price knowledge. Then Wolfinbarger & Gilly (2002) by focus group and online survey reduce these dimensions into four main dimensions as customer service, privacy/security, reliability and web site design, where they suggested that reliability and web site design are most important. Based on the literature review Madu & Madu (2002) found 15 e-service quality dimensions they are – performance, features, structure, aesthetics, reliability, storage capacity, service ability, security and system integrity, trust, responsiveness, product differentiation and customization, web store policies, reputation, assurance and empathy. Then Zeithaml, Parasuraman & Melhotra (2002) suggest efficiency, reliability, fulfilment, privacy, responsiveness and contact. Santos (2003) gave reliability, efficiency, support, communication, security and incentive. Then reliability, access, ease of use, attentiveness, security and credibility were the dimensions of e-service quality which proposed by Yang

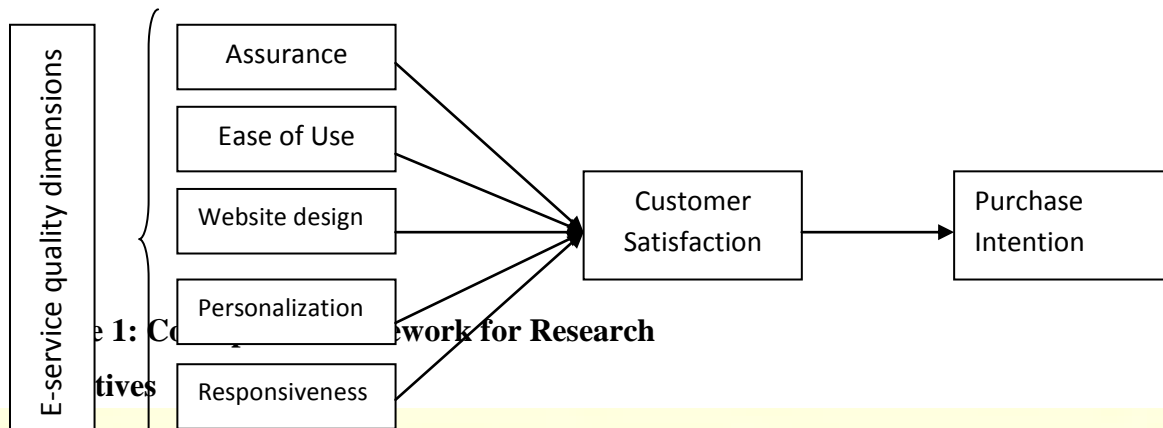
(2001), Jun & Peterson (2004). According to Lee & Lin (2005) key dimensions of e-service quality are web site design, reliability, responsiveness, trust and personalization. According to them trust is the most important determinant by which service quality and satisfaction of customer were affected.

Relationship between e-service quality dimensions, customer satisfaction and purchase intention

According to Lee (2002) purchasing of the customers on the website depends on the customer satisfaction towards the website. Customer satisfaction has its significant effect on purchasing intention (Cronin and Taylor, 1992). Ease of use is a dimension of service quality (Dabholkar, 1996) and it is a crucial for the customer satisfaction (Xue and Harker, 2002). Website design plays an important role in judgment for the website quality (Wolfenbarger and Gilly, 2000). According to Zeithaml et al. (2001) suggests that the tangible elements of the online stores include the website useability and its design. In 2003 research done by Wolfenbarger and Gilly, suggest that website design is the main factor for online stores which affect the customer satisfaction, quality judgements and loyalty towards the online stores. Ribbink et al. (2004) suggest that assurance also refers to the perceived security and privacy using electronic services. Gwo-Guang and Hsiu-Fen (2005), offering customized products and recommend that preferences of the customer influences their satisfaction and their purchase intention. They argued on the personalization dimension in the online store was not significantly related to customer satisfaction and overall service quality. Yang and Jun (2002) find that responsiveness are considered important to customer satisfaction as well as to the overall service quality. Gwo-Guang and Hsiu-Fen (2005) recommend responsiveness dimension gently affects the service quality and customer satisfaction for the online stores.

Conceptual framework of the study

Based on the literature review, dimensions of e-service quality were reformulated. This research explored the hypothesized effect of dimensions of e-service quality on customer satisfaction, and effect of customer satisfaction on purchase intentions. The variable purchase intention is a dependent variable on customer satisfaction and is of the primary interest in this present study. Customer satisfaction is considered as a stage (intermediate) variable. It has been shown in figure 1.



1. To test the effect of e-service quality dimensions on customer satisfaction.
2. To test the effect of customer satisfaction on purchase intention.

Hypothesis

- H₁: Assurance affects the customer satisfaction
 H₂: Ease of use affects the customer satisfaction
 H₃: Website design affects the customer satisfaction
 H₄: Personalization affects the customer satisfaction
 H₅: Responsiveness affects the customer satisfaction
 H₆: Customer satisfaction affects the purchase intention

Research Methodology

A well structured questionnaire was prepared after analysing the various constructs to measure the customer's satisfaction and ultimately the purchase intention. Data were collected from 150 respondents out of which 138 questionnaires filled correctly. For approaching the respondents snowball technique was used.

The dimensions used in this study were taken from the past researches after the sufficient review of those researches. Dimensions assurance, personalization and responsiveness were adopted from Swaid and Wigand (2007) and consist of 4, 3 and 5 items respectively. Purchase intention with 2 items and website design were adopted from Gwo-Guang and Hsiu-Fen (2005). Customer satisfaction containing 3 items were taken from Yang and Jun (2002) and lastly with 4 items, ease of use was taken from Ribbink et al. (2004). All the respondents were asked to rate all the questions on 5 point Likert scale (1= strongly disagree to 5=strongly agree).

Analysis

Firstly the reliability test was done in which the value of 19 independent items in which the value of Cronbach's Alpha is 0.753 which shows that items are reliable. Which has been shown in table 1 and table 2?

Table 1: Case Processing Summary

		N	%
Cases	Valid	138	100.0
	Exclud ed(a)	0	.0
	Total	138	100.0

a Listwise deletion based on all variables in the procedure.

Table 2: Reliability Statistics

Cronbach's Alpha	N of Items
.753	19

For this initially Kaiser-Mayer-Olkin (KMO) was 0.680, which shows that factor analysis is appropriate for the purpose of reduction of items. The value of KMO has shown in table 3.

Table 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.680
Bartlett's Test of Sphericity	Approx. Chi-Square	401.261
	Df	153
	Sig.	.000

Now factor analysis was performed on the five e-service quality dimensions which were taken in conceptual model above containing of 19 items to define the structure among the variables in the analysis. According to Hair Jr. et al. (1998), only those factors were considered those factor loading is >0.5. The results shown of the factor analysis in table 4.

Table 4: Factor analysis

Dimesions of items	Factor
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	loading
Assurance	
Privacy policy is accessible	0.76
Security policy is accessible	0.676
Company details are available on website	0.598
Ease of Use	
Navigation on website is easy	0.765
To find your way is easy on this website	0.677
Website is user-friendly	0.578
It is easy to get access to this company's website	0.588
Website Design	
The online air ticketing is visually appealing	0.781
The user interface of the online air ticketing has well organized appearance	0.617
Personalization	
The website gives me personal attention	0.571
The website enables me to order the product in a way that meets my needs	0.659
Responsiveness	
E-mails responses are accurate and relevant	0.72
E-mails content is appropriate to the customer requirements	0.6
Automated e-mail responses give customer prompt service	0.766

After factor analysis Cronbach's Alpha was applied to test reliability of the measurements in the questionnaire (see table 5).

Table 5: Reliability analysis

Construct	No. of items	Alpha Coefficient
Purchase intention	2	0.860
Customer satisfaction	3	0.818

Ease of use	4	0.786
Website design	3	0.712
Assurance	3	0.731
Personalization	2	0.882
Responsiveness	3	0.756

Table 5 shows that all the measurement is reliable since the value of Cronbach's Alpha is more than 0.7 according to Hair Jr. et al. (2006)

Table 6: Rotated Component Matrix

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change statistics				
					R Square Change	df1	df2	Sig. F Change	Durbin-Watson
1	.883	.779	.735	.795	.779	4	206	.003	2.611

From the Table 6 the variance in dependent variable is explained to the extent of 0.779 i.e. 77.9% by all the four independent variables. The unexplained variance in dependent variable is caused by error factor.

Table 7: Multiple Regression analysis

Model	Standardized		
	Coefficient	t-value	Sig.
constant	-	2.291	0.014
Ease of use	0.349	7.24	0.000
Website design	0.351	3.77	0.000
Assurance	0.11	2.789	0.024
Personalization	0.1	2.444	0.014
Responsiveness	0.206	4.09	0.000

Dependent variable: customer satisfaction

Multiple regression analysis was used to test the hypothesis for finding the effect of dimensions on customer satisfaction in online air ticketing. Results were shown in table 7. The significant value for all the five dimensions were 0.05. The value of standardized coefficient for all variables is positive which represents the positive influence of these independent variables on customer satisfaction. Hypotheses 1 to 5 were accepted because significance value is less than 0.05. The most important contributors to the customer

satisfaction are website design and ease of use which are then followed by responsiveness, Assurance and Personalization.

Table 8: Rotated Component Matrix

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change statistics				
					R Square Change	df1	df2	Sig. F Change	Durbin-Watson
1	.783	.613	.735	.795	.613	3	206	.001	2.411

Table 9: Multiple Regression analysis

Model	Standardized Coefficient	t-value	Sig.
Constant		7.577	0.000
Customer Satisfaction	0.613	12.09	0.000

Dependent variable: Purchase Intention

The value of R-square is 0.613, which implied that near about 60% of total variance is due to the customer satisfaction in purchase intention. The rest of the unexplained variance in dependent variable (purchase intention) is caused by error factor.

The result shown in table 9 that customer satisfaction has positive effect on purchase intention with significance value .000 (<0.05). This suggests us to accept the hypothesis 6.

Conclusion

As the airline industry is growing with very fast pace with consumers with different diverse background and nationality. So the above analysis suggest that there is a necessity to enhance e-service quality dimensions to provide high level of customer satisfaction and ultimately to purchase intention. It has been showed that all the five dimensions which are considered in this paper are having their positive influence of the customer satisfaction and purchase intention to online air ticket booking. These findings may be useful for those airline companies which are more focusing upon online air-ticket booking service to improve their sales.

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