



A STUDY ON CUSTOMER SATISFACTION OF E-SERVICE QUALITY BY ONLINE SHOPPING

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ABSTRACT

This paper develops a research model to examine the relationship among e-service quality dimensions and customer satisfaction. Design/methodology/approach – Data from a survey of 67 online consumers were used to test the research model. Correlation, Regression T-test analysis was conducted Findings – The analytical results showed that the dimensions of web site design, personalization, responsiveness, and trust affect customer satisfaction. Future research can use different methodologies, such as longitudinal studies, focus groups and interviews, to examine the relationship between service quality and customer purchase behaviour in online shopping contexts. Moreover, the results of this study provide a valuable reference for managers of online stores, as well as for researchers interested in internet marketing.

Keywords Electronic commerce, Service quality dimension, Customer satisfaction,

INTRODUCTION

The global growth in electronic commerce, businesses are aiming to gain a competitive advantage by using e-commerce to interact with customers. In today's fast-paced and increasingly competitive market, the bottom line of a firm's marketing strategies and tactics is to make profits and contribute to the growth of the company. Customer satisfaction, quality and retention are global issues that affect all organizations, be it large or small, profit or non-profit, global or local. Quality and customer satisfaction have long been recognized as playing a crucial role for success and survival in today's competitive market. E-commerce business are beginning to realize that the key determinants of success or failure are not merely web site presence and low price but also include the electronic service quality (Yang, 2001; Zeithaml, 2002).

Santos (2003) defined e-service quality as overall customer assessment and judgment of e-service delivery in the virtual marketplace. Service quality is an elusive and abstract construct that is difficult to explain and measure (Cronin and Taylor, 1992). Parasuraman et al. (1988) has been widely tested as a means of measuring customer perceptions of service quality. The SERVQUAL model contains five dimensions namely tangibles, reliability, responsiveness, assurance and empathy. During the early stage, SERVQUAL model has tested to measure quality of service in e-commerce settings (Devaraj et al., 2002; Kim and Lee, 2002; Li et al., 2002; Kuo, 2003; Negash et al., 2003).

The interest in studying the satisfaction and service quality in this paper has been stimulated, firstly, by the recognition that customer satisfaction does not, on its own, produce customer lifetime value (Appiah-Adu, 1999). Secondly, satisfaction and quality are closely linked to market share and customer retention (Fornell, 1992; Rust and Zahorik, 1993; Patterson and Spreng, 1997). There are overwhelming arguments that it is more expensive to win new customers than to keep existing ones (Ennew and Binks, 1996; Hormozi and Giles, 2004). This is in line with Athanassopoulos, Gounaris and Stathakopoulos's (2001) arguments that customer replacement costs, like advertising, promotion and sales expenses, are high and it takes time for new customers to become profitable. (Fornell, 1992; Ennew and Binks, 1996; Bolton, 1998; Ryals, 2003, 2000). Companies and researchers first tried to measure customer satisfaction in the early 1970s, on the theory that increasing it would help them prosper (Coyles and Gokey, 2002). Ranaweera and Prabhu, 2003), service quality is also likely to influence consumer behavioural intentions (Bitner, 1990; Cronin and Taylor, 1992, 1994; Choi et al., 2004). Cronin, Brady and Hult (2000) stated that examining only one variable at a

time may confound the marketing strategies. Hence, this study incorporated service quality into the model in examining customer's expectation in the e-tailing concept.

REVIEW OF LITERATURE:

Cronin, J. J., & Taylor, S. A. (1992) Measuring service quality; a re-examination and extension. *The Journal of Marketing*, Vol. 56, Number 3, p.55-68. Customer satisfaction is conceptualised as been transaction-specific meaning it is based on the customer's experience on a particular service encounter,) and customer satisfaction is cumulative based on the overall evaluation of service experience. These highlight the fact that customer satisfaction is based on experience with service provider and also the outcome of service.

Giese, J. L., & Cote, J. A. (2002). Defining Consumer Satisfaction, *Academy of Marketing Science*, Vol. 2000, Number 1, p.1-24. clearly state that there is not generic definition of customer satisfaction and after carrying a study on various definitions on satisfaction they came up with the following definition, "customer satisfaction is identified by a response (cognitive or affective) that pertains to a particular focus (i.e. a purchase experience and/or the associated product) and occurs at a certain time (i.e. post-purchase, postconsumption)".

Huddleston, P., Whipple, J., Mattick R. N. & Lee S. J. (2008). Customer satisfaction in food retailing: comparing specialty and conventional grocery stores, *International Journal of Retail & Distribution Management*, Vol.37, Number 1, p.63-80. if the shopping experience provides qualities that are valued by the consumer then satisfaction is likely to result. This clearly pinpoints the importance quality when carrying out purchase and this relates to grocery stores that offer variety of products with different quality.

Negi, R. (2009). Determining customer satisfaction through perceived service quality: A study of Ethiopian mobile users, *International Journal of Mobile Marketing*; Vol.4, Number 1; p.31-38 The research suggest that customer-perceived service quality has been given increased attention in recent years, due to its specific contribution to business competitiveness and developing satisfied customers. This makes service quality a very important construct to understand by firms by knowing how to measure it and making necessary improvements in its dimensions where appropriate especially in areas where gaps between expectations and perceptions are wide. In the context of grocery stores, we are not only interested in learning more about the factors associated to service quality perceived by customers and how service quality is measured but also provide a direction for improvement of service quality in order to bring customer satisfaction.

Wicks, A. M., & Roethlein, C. J. (2009). A Satisfaction-Based Definition of Quality Journal of Business & Economic Studies, Vol. 15, No. 1, Spring 2009, 82-97. It is vital to keep consumers satisfied and this can be done in different ways and one way is by trying to know their expectations and perceptions of services offered by service providers. In this way, service quality could be assessed and thereby evaluating customer satisfaction.

E-SERVICE QUALITY DIMENSION

Web site design

Than, C.R. and Grandon, E. (2002), "An exploratory examination of factors affecting online sales", Journal of Computer Information Systems, Vol. 42 No. 3, pp. 87-93. The study examines the impact of web-site related factors on online sales. They had examined the impact of these variables representing the content, design, security and privacy dimensions of a web site. They had identified the following factors to be significantly impacting online sales: frequent update of web content, presence of decision aids, provision of information on the firm, presence of FAQ section, use of multimedia, provision of individual user accounts, secure modes of data transmission, provision to conduct offline and online financial transactions and privacy statement.

Reliability

Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1988), "SERVQUAL: a multiple item scale for measuring customer perceptions of service quality", Journal of Retailing, Vol. 64 No. 1, pp. 12-40. The main Objective of the analysis is to develop a scale that measures service quality as perceived by customers and which is applicable over a wide range of service categories. The final SERVQUAL scale, containing 26 items, measures five dimensions of service quality, termed tangibles, reliability, responsiveness, assurance, and empathy. Its reliability and validity are high. Each item of the SERVQUAL scale is cast as a pair of statements--consumers' expectations and consumers' perceptions about the individual firm being studied--both measured on 7-point scales. The difference between the two scores is the SERVQUAL score for that item and can be averaged along the five dimensions and overall across dimensions. It allows the firm to diagnose particular areas of strength and weakness as well as overall perceived service quality. The actual SERVQUAL scores obtained in this study may serve as a benchmark for future studies of service quality.

Responsiveness

Liao, Z. and Cheung .M,(2002), "Internet based e-banking and consumer attitudes: an empirical study", *Information and management*, Vol. 39 No. 4, pp. 283-95. The study explain consumer attitudes toward the usefulness of and willingness to use Internet e-retail banking was identified and measured. Regression discovered that willingness to use depended significantly on the five factors, allowing the interdependencies or marginal rates of substitution between them to be estimated. The results draw attention to demand-side changes may also be useful for development planning and marketing.

TRUST

McKnight, D.H., Chudhury, V. and Kacmar, C. (2002), "The impact of initial customer trust on intentions to transact with a web site: a trust building model", *Journal of Strategic Information Systems*, Vol. 11 No. 4, pp. 297-323.

The paper develops and tests a model of consumer trust in an electronic commerce vendor. Trust allows consumers to overcome perceptions of risk and uncertainty, and to engage in the following three behaviors that are critical to the realization of a web-based vendor's strategic objectives. Three factors are proposed for building consumer trust in the vendor. The model is tested in the context of a hypothetical web site offering legal advice. All three factors significantly influenced consumer trust in the web vendor. The factors web site quality and reputation, are powerful levers that vendors can use to build consumer trust. The study also demonstrates that perceived Internet risk negatively affects consumer intentions to transact with a web-based vendor.

PERSONALIZATION

Yang, Z. and Jun, M. (2002), "Consumer perception of e-service quality: from internet purchaser and non-purchaser perspectives", *Journal of Business Strategies*, Vol. 19 No. 1, pp. 19-41.

The study expands the knowledge concerning service quality dimensions in the context of Internet commerce, from the differing perspectives of two groups: Internet purchasers and Internet non-purchasers. Six primary service quality dimensions perceived by Internet purchasers were uncovered: reliability, access, ease of use, personalization, security, and credibility while seven dimensions were discovered for Internet non-purchasers: security, responsiveness, ease of use, reliability, availability, personalization, and access. When examining the relative importance of each dimension affecting overall service quality assessment, the "reliability" factor was found to be the most important dimension for Internet purchasers while Internet non-purchasers consider "security" as their most critical concern.

CUSTOMER SATISFACTION

Cho, N. and Park, S. (2001), “Development of electronic commerce user – consumer satisfaction index (ECUSI) for internet shopping”, *Industrial Management and Data Systems*, Vol. 101 No. 8, pp. 400-5

Customers in an Internet shopping environment actually play dual roles. One in a customer in a shopping place, and the other is a user of information technology. In both cases, the level of satisfaction was a great concern. In this research, an instrument for measuring electronic commerce consumer satisfaction was proposed and validated using a sample of over 400 customers. The relationship between the index and consumers’ purchasing intention was also examined.

OBJECTIVES OF THE STUDY

1. To identify the various dimensions of service quality which is influenced on online shopping?
2. To measure the impact of service quality dimensions on customer satisfaction
3. To examine the relationship between e-service quality dimensions and customer satisfaction.

HYPOTHESIS OF THE STUDY

1. There is no significant difference among different dimensions of service quality.
- 2..There is no significant influence of service quality on customer satisfaction.
3. There is no significant relationship between e-service quality dimensions and customer satisfaction.

RESEARCH ANALYSIS

A total of 100 questionnaires were distributed. Out of 100 respondents 67 questionnaire had been completed. The questionnaire included a section on personal information where details of the respondents age, gender, designation, marital status, educational qualification, experience and the income were collected .The second part of the questionnaire contains various factors of the e- service quality dimensions. All items were measured using a seven-point Likert-type scale (ranging from strongly disagree to strongly agree) This study adapted the measures from the relevant previous studies, making minor wording changes to these measures to the online shopping context. Items for measuring web site design, reliability, responsiveness, and personalization employed several dimensions of the SERVQUAL model (Parasuraman et al., 1988; Kim and Lee, 2002; Yang and Jun, 2002).The study focus on the

satisfaction factor. Customer purchase online is because of the various factors that may attract them to purchase online. They do expect more features in the online shopping. The marketers offers various e -services to the customers. The study mainly focused on the which factors does the customer expect and whether the expectation has satisfied or not. The analysis regression inter correlation t-test has been made.

The researcher used the following analysis to find out the result.

REGRESSION ANALYSIS

Table – 1 **Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.736 ^a	.542	.504	.53242

a. Predictors: (Constant), personalisation, reliability, trust, responsiveness, web design

From the above table it is found that $r=.736$ r square = .542 and adjusted r square .504. this implies the service quality dimensions create 93% variance over the customer satisfaction. The cumulative influence of five variables of customer satisfaction is ascertained through the following one way analysis of variance.

Table – 2 **ANOVA^a**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	20.147	5	4.029	14.214	.000 ^b
Residual	17.008	60	.283		
Total	37.155	65			

a. Dependent Variable: satisfaction

b. Predictors: (Constant), personalisation, reliability, trust, responsiveness, webdesign

Table 2 presents that $f=14.214$ $p=.000$ are statistically significant at 5% level. This indicates all the five variables cumulatively responsible for customer satisfaction. The individual influence of all this five variables is clearly presented in the following co-efficient table.

Table – 3 Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.416	.541		-.770	.444
1 Web design	.312	.152	.245	2.059	.044
Reliability	-.043	.159	-.031	-.271	.787
responsiveness	.304	.141	.247	2.150	.036
Trust	.118	.122	.112	.967	.337
personalisation	.407	.138	.346	2.950	.005

a. Dependent Variable: satisfaction

From the above table it shows that web design (Beta=.245, $t=2.059$, $p=.044$), Reliability (Beta=-.031, $t=0.271$, $p=.787$), Responsiveness (Beta=.247, $t=2.150$, $p=.036$), Trust (Beta=.112, $t=.967$, $p=.337$), personalisaion (Beta=.346, $t=2.950$, $p=.005$) are statistically significant at 5% level. This indicates that the personalization dimension creates good satisfaction among the customers.

FACTORS OF E-SERVQUAL SERVICE DIMENSION AND SATISFACTION CORRELATION

S.NO.	FACTORS	r value	Sig.
1.	Web design	0.577	.000
2.	Reliability	0.338	.000
3.	Responsiveness	0.542	.000
4.	Trust	0.487	.000
5.	Personalisation	0.645	.000

Interpretation

From the above table inferred that 'Satisfaction' is highly correlated with 'personalisation'(r=0.645,p<0.01) followed by 'web design' (r=0.577,p<0.01), 'responsiveness' (r=0.542,p<0.01), 'trust'(r=0.487,p<0.01) and lastly 'reliability' (r=0.338,p<0.01). The satisfaction of customers is directly linked to personalization of the online store by providing targeted emails recommendations and free personal homepage for the customers. Website design which is visually appealing ,well organized and easy transaction influences customer satisfaction in a large manner since the outlook of the website in a very well organize does matter, mostly of the online users tends to gets distracted when they try to search the particular product but the search results tend to appear inappropriately. Thus website design which attracts the large number of customers and also by providing prompt service and quick respond to customer requests also largely influences satisfaction of the customers.

T Test:

4.3 Gender and online store satisfaction

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean	T	Sig.(2 tailed)
Satisfaction	Male	51	3.6863	.88295	.12364	0.915	.364 (NS)
	Female	15	3.4667	.51640	.13333		

This independent sample 't' test analysis indicates that 51 male had a mean of 3.6863 and 15 female had a mean of 3.4667 and the mean did not differ significantly at the p<.05 level (p=0.364). It is proved that there not make any differences among the male and female customers in accordance with their expectation and satisfaction level on online store.

Marital status and online store satisfaction

Group Statistics

	Marital status	N	Mean	Std. Deviation	Std. Error Mean	T	Sig.(2 tailed)
Satisfaction	single	45	3.6000	.78044	.11634	.527	.600
	married	21	3.7143	.90238	.19691		

Interpretation:

This independent sample 't' test analysis indicates that 45 unmarried respondents had a mean of 3.6000 and 21 married respondents had a mean of 3.7143 and the mean did not differ significantly at the $p < .05$ level ($p = 0.527$). It means that there is no significant differences between the married and unmarried respondents with respect to the expectation and satisfaction level of customers on online store.

FINDINGS AND CONCLUSION

- Online stores should develop marketing strategies to better address the trustworthy, reliability, and responsiveness of web-based services. Online stores can devote valuable corporate resources to the important e-service quality attributes identified by this study.
- Second, web site design cannot be ignored. Web site design is an important means to provide customer usefulness and ease of use during online transaction processes.

Finally, it concludes that to enhance customer satisfaction and to push up the purchase intentions the E-service factor personalization and web design had a highly impact towards the customer satisfaction.

LIMITATIONS OF THE STUDY

The study has some limitation. The sample had been collected only from the north Chennai and the questionnaire has been given to only the internet users to buy online specially from (Flipkart, Amazon). However, this shortcoming does not represent a serious limitation since substantial empirical support exists for the causal link between e-service dimension and satisfaction. The growth of the internet and online shopping will continue, and future research can replicate similar studies solely involving online shoppers, measuring actual purchase behaviours instead of intentions. This procedure is designed to understand if there are any significant difference in the perceptions of e-service quality of internet users and internet purchasers. The scales used for measuring dimensions of e-service quality are similar to existing scales, further research might consider developing more elaborate measures to allow for richer coverage of e-service quality scales.

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