International Journal of Advanced Research and Review

www.ijarr.in

SERVICE QUALITY OF E-BANKING SERVICES AND CUSTOMER SATISFACTION

D.JAGADEESAN[1] & P.CHINNADURAI[2]

[1]Asst.Professor-cum- Liaison Officer
Perambalur Study Centre, DDE,
Annamalai University
Annamalai Nagar-608002
Tamil Nadu.
E-mail: jagadees1976@gmail.com

[2]Asst.Professor of Business Administration
Business Administration Wing
DDE, Annamalai University
Annamalai Nagar-608002
Tamil Nadu.
E-mail: meenakshichinna1968@gmail.com

ABSTRACT

This paper aimed to verify the relationship between e- banking services and customer satisfaction by applying SERVQUAl model. While the previous researchers had already examined the effect of quality services on customer satisfaction and, no previous study was done on e- banking. Therefore, this paper attempted to fill the gap in the literature by applying SERVQUAL model to study the quality of the e- banking services rendered by the banks in Tamil Nadu. The researcher has used the customer satisfaction as the dependent variable and the five dimensions of service quality; namely, tangibles, reliability, responsiveness, assurance and empathy, as the independent variables. This paper presents a study to investigate service quality indexes in e-Banking. This is an applied research study of descriptive-surveying kind .The purpose of this research is to understand the impact of service quality factors of e-Banking on customer satisfaction in Tamil Nadu.

Key words : Customer satisfaction, E-banking, Electronic service quality, SERVQUAL

INTRODUCTION

Banking industry has realized the importance of customer-centered philosophies and is turning to quality management approaches to help managing their businesses. Many researchers and service marketers have explored consumers' cognitive and affective responses to the perception of service attributes in order to benefit by providing what customers need in an effective and efficient manner. Customers satisfaction is considered the primary intervening constructs in the area of service marketing because ultimately it leads to the development of customers loyalty or re-patronization of a product or service **(**Ravichandran et al., 2010). Service quality and customer satisfaction are very important concepts, which must understand by companies that want to grow while keeping their competitive edge. In the modern competitive environments, delivering high service quality is the key for a sustainable competitive advantage. Customer satisfaction has a positive effect on an organization's profitability. Satisfied customers of any business repeat purchase, show brand loyalty, and give positive word of mouth. Many models have been developed to measure service quality delivered by firms in numerous businesses. It is important to review service quality models because of its relation with customer satisfaction. Thus, service quality has become a major area of interest of practitioners, managers and researchers because of its impact on customer satisfaction, customer loyalty, and of course, company profitability (Zekiri, 2011).

SERVQUAL MODEL

Service quality is one of the important attributes of service providers as they regard measuring the service quality from consumers' perspective as a top priority construct. Service quality is an indispensable factor for customer satisfaction, cost reduction, customer loyalty, customer relationship and retention, profitability and so on. Many have suggested that quality results from a comparison of perceived performance with expected performance based on the so-called "disconfirmation theory". Indeed, this notion was the basis for the SERVQUAL model, which views service quality as the gap between the expected level of service and customer perceptions of the level received. Berry, Parasuraman and Zeithaml (1988) are the creators of this instrument that is used to measure the customer perceptions of service quality (Islam, 2012). Therefore, the evaluation of service quality results from comparing the perception about received services with prior expectations of what those services should provide.

Previous studies did not support all factors structure proposed by Parasuraman et al. (1988). The universality of the scale and its dimensions has also been the subject of criticisms and it is believed that they require customization to the specific service sector in which they are applied.

The SERVQUAL model consists of five main dimensions, namely, tangibility, reliability, responsiveness, assurance and empathy.Islam (2012) examined the application of SERQUAL model in customer services of mobile operators in Bangladesh based on four dimensions (tangibles, reliability, responsiveness and empathy). Pairot (2008) defined Customer‘s satisfaction as the company's ability to fulfill the business, emotional, and Psychological needs of its customers. However, customers have different levels of satisfaction as they have different attitudes and experiences as perceived from the company. Customer's satisfaction is affected by the importance placed by the customers on each of the attitudes of the product/service. Customer satisfaction measurement allows an organization to understand the key drivers that create satisfaction or dissatisfaction; and what is really driving their satisfaction during a service experience.
Electronic banking operations; the accessibility and reliability of service provision; good queue management; service personalization; the provision of friendly and responsive customer service; and the provision of targeted customer service. Perceived usefulness, security and privacy are the most influencing factors to accept e- banking (Qureshi et al, 2008).The present study focuses on the e-banking service quality offered by selective commercial banks functioning in Tamil Nadu of India.Further this study made an attempt to examine the impact of e-banking service quality of the selected commercial banks on their customer satisfaction.

STUDIES ON E-BANKING SERVICES

E-banking service is a service delivered to a customer or a potential buyer through a web site .E-Service quality is defined as difference between the service that a customer or a user of particular web site expects and the one actually provided by the web site (Musiime and Malinga,2010). Zeithaml, Parasuraman and Malhotra(2000) developed the e-servqual measure for electronic service quality to study customer's judge about service quality. They identified seven dimensions-efficiency, reliability, fulfillment, privacy, responsiveness, recovery and contact to measure customer perception of service quality in online field. Awad(2000) found that four e-commerce activities are available to Internet users : (1) shopping, (2) banking, (3) investing, and (4) online electronic payment for Internet services. The first formal definition of website quality was provided by Zeithaml, Parasuraman and Malhotra(2000): ‘‘the extent to which a web site facilitates efficient and effective shopping, purchasing, and delivery of product and services." Although the discussion about the e-service and its quality began only with the onset of the information society in Europe, there are numerous systems dealing with the evaluation of the e-service quality.

The difference between the factors appears if they measure different types of service ,so one type of factors are used in evaluation of the online shopping ,and the other type of factors are used service buying (Mekovec and Kero,2007). Saha and Zhao(2005) identified nine service quality dimensions in internet banking .They are efficiency, reliability, responsiveness, fulfillment, privacy, communications, personalization, technology update and logistic/technical equipment Lociacono, Watson and Goodhue(2000) planed a system which called Web Qual, and is used for measurement of website quality . Wolfinberger and Gilly(2002) presented a scale named .comQ with four factors website design, reliability, security/privacy and customer service. Wolfinberger and Gilly developed the eTailQ system to measuring the quality of online retail shopping. In 2004 Web and Web suggested Site Qual system that can be used in creation and upgrading of the B2C websites. WebQual system in 2005 is renamed e.Qual. This model is based on user perceptions and its importance.

Nupur(2010) investigated the impact of variables of e-banking on customer satisfaction in Bangladesh and argued that reliability, responsiveness, assurance, empathy and tangibles are the core service quality dimensions for customer satisfaction in e-banking. First five dimensions were tested as a core dimensions in internet banking. Communication and personalization were identified as another two important service quality dimensions in internet banking. Fasanghari and Roudsari(2008) established a customer satisfaction evaluation method based on combination of linguistic variables, fuzzy triangular numbers, and fuzzy entropy. They found that the designed evaluation method creates suitable results and the evaluation could be done as well as possible.

Gbadeyan and Akinyosoye (2011) argued that there is positive relation between customer satisfaction and service quality in e-banking in Sierra Leone, their study has shown the various benefits accruing to internet banking, and that many people are increasingly using this service. Also Timothy(2012) studied this relation in Nigerian Bank Industry . Saeidipour, Vatandost and Akbari (2012) Studied the effect of development of electronic banking on customer satisfaction levels by using Kano model in Refah Bank of Kermanshah, Iran. Jayanthi and Umarani(2012) found that nearly 90 percent of the customers, who use internet for their banking operations, prefer internet banking to manual banking. The main reasons are convenience (24 hours services, anywhere connectivity) and time saving (no queues and waiting time). The concept of quality service goes beyond the technical aspects of providing the service – it includes customers' perception of what the services are to be conveyed (Toosi and Kohanali,2011).

Musiime and Ramadhan(2011) argued that the factors that influence consumer adoption of Internet banking services and found positive relationship between internet banking service, customer adoption and customer satisfaction in Uganda, Africa . They also found that the bank should not be complacent; instead it should be creative and innovative creating new products or services that can stimulate the demand to use internet banking services. Kumbhar(2011) argued that perceived value, brand perception, cost effectiveness, easy to use, convenience, problem handling, security/assurance and responsiveness are important factors in customer satisfaction in e-banking. In this research has tried to provide a model to study the dimensions of service quality in internet banking and examined the influence of service quality and customer satisfaction in internet banking.

PRESENT STUDY

Present study is the exploratory study based on self reported level of satisfaction obtained from the sample of account holders of selective commercial banks functioning in Tamil Nadu of India towards e-banking services offered by their banks.This study has made an attempt to find out account holders level of satisfaction towards e-banking services and to explore the relation between service quality dimensions namely,Tangibility,Reliability,Responsiveness, Assurance and Empathy.Therefore,the following objectives and hypotheses were framed for this study.

OBJECTIVES

- To study the customer satisfaction towards e-banking service quality.
- To verify the relationship between service quality dimensions and customer satisfaction.

HYPOTHESES

H1: E-banking service quality has a significant relationship with customer satisfaction in the the commercial banks of Tamil Nadu.

H2: Tangibility has a significant relationship with the Indian banks' customer satisfaction e-banking.

H3: Reliability has a significant relationship with the banks in India customer satisfaction towards e- banking services.

H4: There is a significant relationship between Responsiveness and the customer satisfaction towards e- banking services offered by Indian banks.

H5: Assurance has a significant relationship with the customer stisfaction of banks in India towards e- banking sevices.

H6: Empathy has a significant relationship with the Indian customer satisfaction of e-banking services.

METHODOLOGY

Based on the previous works, Saha and Zhao's(2005) model and Zeithaml, Parasuraman and Malhotra (2002), provided a model. In this model identified six service quality dimensions – Reliability, Efficiency, Responsiveness, Fulfillment, Privacy/Security and Website Design. The Website Design factor added and examined influence of this factor to customer satisfaction in e-banking . In **Figure 1** the theoretical framework of the study is shown.

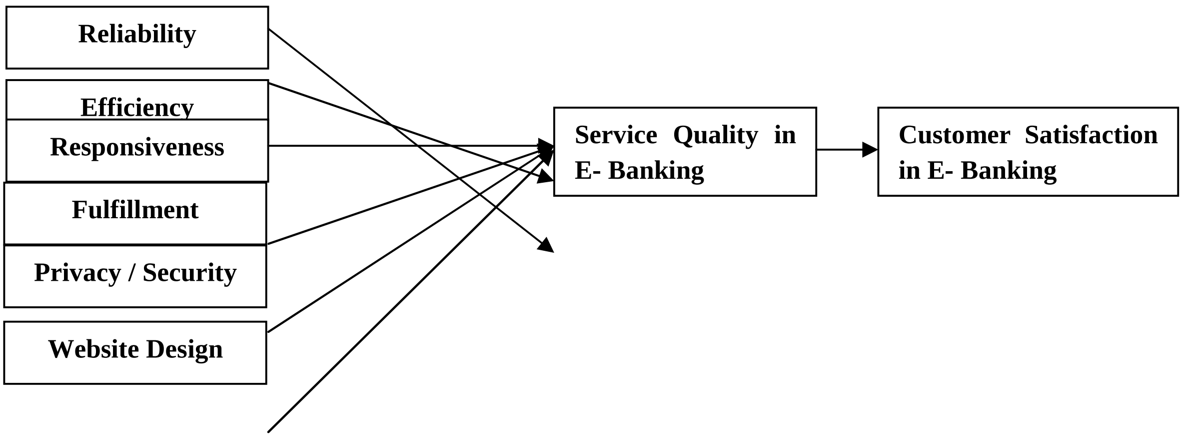

Figure 1. The conceptual frame work of the study

The data were collected from the customers of 15 different Indian commercial banks functioning in Tamil Nadu. The sample size used was 480 respondents. The respondents were selected on the basis of convenience sampling. Five demographic variables were investigated as covariates in this research. These variables were as follow: age, gender, educational qualification, monthly income, use of e- banking frequency. Twenty three questions were developed based on SERVQUAL model. The model included questions covering five dimensions of the service that are tangibility, responsiveness, assurance, reliability and empathy. Likert scale was used to rate the respondents' responses on the five-point scale. The respondents were asked to rate on the scale between strongly agree and strongly disagree for measurement, customer satisfaction was designed 16 questions. Five hundred and fifty questionnaires were distributed and 518 were returned,but 38 questionnaires were rejected as those were incomplete, therefore 480 respondents' responses were taken into consideration for this study.

STATISTICAL TOOLS

The present study used a mixture of statistical techniques to accomplish the intended objectives. First, descriptive statistics were employed to analyze the profile of the respondents, which is necessary in analyzing the result. Second, Pearson's correlation coefficient was used to measure the relationship between services quality and customers satisfaction. Then, regression analysis was used to estimate the cause and effect relationship between the variables of services quality and customers satisfaction. In addition, factor analysis technique was used as a preliminary stage to logistic regression analysis. SPSS software was used to accomplish all the above-mentioned tests.

RESULTS AND DISCUSSIONS

The **Table 1** presents the demographic characteristics of the sample. The account holders of about 6 per cent from below 30 years old, more than half of the sample (58 per cent) of the account holders have been chosen as respondents from the age group 41- 55 years and above 56 years respectively. There were about 32 account holders(7 per cent) out of 480 account holders having the qualification of school level, 87 respondents(18 per cent) having diploma as their educational qualification, 204 respondents(42 per cent) were under graduates, 138 account holders(29 per cent) were post graduates and rest of the account holders(4 per cent) chosen as respondents having professional degree qualifications like B.E,M.E,M.B.A and M.C.A.

There were more number of male account holders; this may be a reason that in a family the male preferably might have an account in a bank. Income wise classification of the respondents reveal that 63 respondents are having their monthly income as less than 20 thousand ,104 respondents are earning between 21 thousand and 30 thousand per month, 31-40 thousand is reported as the monthly income of 112 account holders where as majority(42 per cent) of account holders are having more than 40 thousand as their monthly income. Most of the account holders (286) chosen as respondents of this study used to do e-banking 1-2 times in a month,146 respondents go for e-banking 3-4 times in a week, 39 respondents are utilizing e-banking service hardly one time in a month and nine respondents(2 per cent) are doing e- banking transactions every day. Occupation wise classification of the account holders as respondents for this study disclose that 46 per cent of the account holders are Business people,13 per cent of account holders are teachers, 48 respondents(10 per cent) belong to Professional category and the rest of the respondents(31 per cent) belong to other category.

Table 1- Demographic Characteristics of the respondents(N=480)

	Variables	Frequency	Percentage (%)
Age	Less than 25	28	6
	26 – 40	279	58
	41 – 55	137	28
	Above 56	36	08
Educational Qualification	School Level	32	07
	Diploma	87	18
	Undergraduates	204	42
	Postgraduates	138	29
	Professional Degree	19	04
Gender	Male	443	92
	Female	37	08
Monthly Income (thousand)	Less than 20	63	13
	21 – 30	104	22
	31 – 40	112	23
	Above 40	201	42
E-banking Frequency	Every day	9	02
	3 – 4 Per week	146	30
	1 – 2 Per Month	286	60
	Less than 1 per month	39	08
Occupation	Teaching	63	13
	Business	223	46
	Professional	48	10
	Others	146	31

The mean value depicting the overall customers' satisfaction. As far as this descriptive statistics is concerned, customers' satisfaction on e-banking service is above satisfactory level (with a mean value of 3.25 on a 5-point Likert scale). In addition, mean of the SERVQUAL dimensions are above satisfactory level. Calculate of correlation used to examine relationship between dependent variable and each independent variable. Results show the four variables, tangible (0.207), reliability (0.331), responsiveness (0.279), and empathy (0.345) are significantly correlated with satisfaction **(Table 2).** In other word, these four factors have positively relationship with customer satisfaction. However, the assurance factor does not have relationship with customer satisfaction. These findings show that the hypotheses H2, H3, H4 and H6 were accepted, where as, hypothesis H5 has not been confirmed. The regression and ANOVA are used for test of first hypothesis. The overall correlation and its ANOVA are summarized as follow:

Table: 2 Correlations

		Satisfaction	Tangibles	Reliability	Responsiveness	Assurance	Empathy
Satisfaction	**Pearson Correlations**	**1**	**0.207**	**0.331**	**0.279**	**0.018**	**0.345**
	Sig.		**0.005**	**0.000**	**0.002**	**0.764**	**0.000**
Tangibles	**Pearson Correlations**	**0.207**	**1**	**0.445**	**0.798**	**0.781**	**0.756**
	Sig.	**0.005**		**0.000**	**0.000**	**0.000**	**0.000**
Reliability	**Pearson Correlations**	**0331**	**0.445**	**1**	**0.496**	**0.327**	**0.742**
	Sig.	**0.000**	**0.000**		**0.000**	**0.000**	**0.000**
Responsiveness	**Pearson Correlations**	**0.279**	**0.798**	**0.496**	**1**	**0.479**	**0.671**
	Sig.	**0.002**	**0.000**	**0.000**		**0.000**	**0.000**
Assurance	**Pearson Correlations**	**0.018**	**0.781**	**0.327**	**0.479**	**1**	**0.429**
	Sig.	**0.764**	**0.000**	**0.000**	**0.000**		**0.000**
Empathy	**Pearson Correlations**	**0.345**	**0.756**	**0.742**	**0.671**	**0.429**	**1**
	Sig.	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	

Table 3: ANOVA

Model	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Regression	1.725	1	1.725	10.378	.002
Residual	19.114	478	.154		
Total	20.839	479			

From the **ANOVA Test (Table 3),** the value 0.05 is greater than the calculated Sig. value 0.002. It reflects the null hypothesis at 5% level of significance. It means there was a significant correlation between dependent variable and independent variables. Therefore, customer satisfaction level depends on quality dimension in e- banking service.

CONCLUSION

The research paper used customers' perception of e- banking service quality. This research article concludes that increase in service quality of the e- banking can satisfy and develop customer satisfaction that ultimately retains valued customers. The research generally supports the result of previous research. Ravichandran et al. (2010) examined influence of service quality on customer satisfaction in banking industry. In addition, Khalil Mohammad Khalil observed that there is a relation between customer satisfaction in online banking service and tangible, reliability, responsiveness and empathy. Kumbhar (2011) proposed that responsiveness, assurance, security, easy to use is the factors affecting the customer satisfaction in E- banking. Willingness of customers to use electronic banking, which is a banks desirable goal, increases when, access to modern banking is more, customers understanding of electronic banking, dependence of modern banking on electronic network and customers imagery about the benefits of using e-banking are better (Zari Baf and Hosseini, 2012).

REFERENCES

Awad, E.M, ‘‘The Structure of E-commerce in the Banking industry: An Empirical Investigation’’, SIGCPR2000 Evanston Illinois USA.

Fasanghari,M and Roudsari H., ‘‘The Fuzzy Evaluation of E-Commerce Customer Satisfaction’’, World Applied Science Journal, Vol. 4, No.2, (2008) 164-168.

Gbadeyan,R.A and Akinyosoye-Gbonda,O.O., ‘‘Customers’ Preference For E-Banking Services: A Case study of Selected Banks in Sierra Leone’’, Australian Journal of Business and Management Research, Vol.1, No.4, (2011) 108-116.

Islam, R.M.D.(2012), ‘‘Application of Servqual Model in Customer Service of Mobile Operators: A Study from the context of Bangaladesh’’, Europian Journal of Business and Management, 4(1), pp.47-54.

Jayanthy,M and Umarani ,R., ‘‘Customers’ perception and satisfaction towards internet banking services’’, International Journal of Multidisciplinary Research ,Vol. 2,No. 8, August ,(2012),ISSN 2231 5780.

Kumbhar,V.M , ‘‘Factors affecting the customer satisfaction in e-banking: some evidences from Indian banks’’, Management research and practice, Vol. 3, No.4, (2011) 1-14.

Lociacono,E , Watson,R.T and Goodhue,D., WebQual ™: ‘‘A web site Quality Instrument, Working Paper’’. Worcester Polytechnic Institute (2000).

Mekovec,R., Kero, K., ‘‘E-Service quality: a case study of Varazdin County’’, 26th International Conference on Organizational Science Development CREATIVE ORGANIZATION, March 28-30, (2007), Protozoa, Slovenia.

Musiime,A.,Malinga,R., ‘‘Internet banking, Consumer adoption and Customer satisfaction’’, African Journal of Marketing Management ,Vol.3, No.10, (2011) 261-269.

Nupur,J.M., ‘‘E-Banking and Customer Satisfaction in Bangladesh: An Analysis’’, International Review of Business Research Papers, Vol. 6, No 4, (2010) 145-156.

Parasuraman, A., Zeithaml, **V.A., and Berry, L.L. (1988):** SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. Journal of Retailing, 64, 41-50.

Pairot,R.(2008) ‘‘E-Banking Service Quality of Public Sector banks’’International Journal of Business Business Management,Vol.2,2008.

Qureshi,T.M., Zafar, M.K., Khan, M.B.(2008), ‘‘Customer Acceptance of Online Banking in Developing Economies’’,Journal of Internet Banking and Commerce, Vol.13, No.1, pp.12-37.

Ravichandran, K., Prabhakaran, S. and Kumar, A.S.(2010) ‘‘Application of Servqual Model on Measuring Service Quality: A Baysian Approach’’ Enterprise Risk Management, 1(1), pp.145-169.

Saeidipour,B., Vatandost,T and Akbari,P., ‘‘Study the Effect of Development of Electronic Banking on Customer Satisfaction Levels by Using Kano Model (Case study : Refah Bank of Kermanshah, Iran)’’,International Research Journal of Applied and Basic Sciences, Vol.3, No5, (2012) 950-960.

Saha,P., and Zhao,Y., ‘‘Relationship between online Service Quality and Customer Satisfaction’’, Lule University of Technology MSc Program me in Electronic Commerce (2005).

Timothy,A., ‘‘Electronic Banking Services and Customer Satisfaction in the Nigerian Banking Industry’’, International Journal of Business and Management Tomorrow, Vol.2, No. 3, (2012) 1-8.

Toosi,N.M., Kohanali,R.A., ‘‘The study of airline service quality in the Qeshm free Zone by fuzzy logic’’, Journal of Mathematics and Computer Science, Vol. 2, No. 1, (2011), 171-183.

Wolfinberger M.F.,and Gilly,M.C., ‘‘Dimensional zing, measuring and predicting e Tail Quality’’, Journal of retailing, Vol.79, (2003)183-198.

Wolfinberger M.F.,and Gilly,M.C., ‘‘Dimensional zing ,measuring and Predicting Quality of the E-tail Experience’’, Working Paper No.02-100.Marketing Science Institute, Cambridge, MA, (2002).

Zari Baf, M., Hosseini, S.M. and Bozorgmehr, B.(2012), ‘‘Comparative study of Electronic and Traditional Banking Preferences of User Behaviour’’ Journal of Management,21,pp. 55-66

Zeithaml Valarie,A., Parasuraman,A and Malhotra,A., ‘‘Service Quality Delivery Through Web Sites :A Critical Review of Extant Knowledge, Journal of the Academy of Marketing Science’’, Vol. 30, No4, (2002) 358-371.

Zeithaml Valarie,A.,Parasuraman,A and Malhotra,A., ‘‘A Conceptual Framework for Understanding e-Service Quality: Implications for Future Research and Managerial practice’’: Working Paper, Cambridge M.A, Marketing Science Institute, Report Number 00-115, (2000).

Zekiri,J. (2011), ‘‘Applying SERVQUAL Model and Factor Analysis in assessing Customer Satisfaction with Service Quality: The Case of Mobile Telecommunications in Macedonia’’ International Bulletin of Business Administration, 11, pp.86-101.