Internet Banking Service Quality and Account Holders' Satisfaction

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Abstract: *This research focused at applying SERVQUAL model to verify the relationship between internetbanking services and account holders' satisfaction. While the previous researchers had already examined the effect ofservices on banking account holders' satisfaction, no previous study was done on internet banking. Thus, thepresent paper attempted to fill the gap in the literature by applying SERVQUAL model to study the quality of theinternet banking services rendered by the banks inIndia. The researcher has used the account holders' satisfaction as thedependent variable and the five dimensions of service quality; namely, tangibles, reliability, responsiveness,assurance and empathy, as the independent variables.*
Keywords: *Account holders, Empathy,Internet banking, Satisfaction,SERVQUAL.*

I. Introduction

The emergence of Internet has changed the business landscape. The Internet is an extremely important new technology in this era. One particularly important application of the internet is the area of banks and financial institutions**(Anuar,et.,al,2012)[1].** Today, with development of information technology and offering Internet services, network management issues and providing optimal service quality are considered as important issues**(Neghab,et.,al,2013)[2]**. Growth of Electronic banking in a country depends on many factors ,such as success of internet access,new online banking features ,household growth of internet usage ,dependable services to the account holders' for which they may be relatively satisfied than of manual system of banking **(Nupur,2010)[3].**E-Service quality evaluation results can be used as a basis for e-service quality improvement as well as the improvement of enterprise efficiency, competitiveness and attractiveness in the virtual market **(Mekovec and Kero,2007)[4].**The traditional service quality dimensions cannot directly apply to internet banking, because it represents a different and unique service delivery process**(Saha and Zhao,2005)[5].**E-banking has become important phenomenon in the banking industry and it will continue as more progress and innovations are made in information technology**(Gbadeyan and Akinyosoye,2011)[6].** To understand satisfaction in the e-commerce context, we need to have a clear understanding of what it meant by account holders' satisfaction. Account holders' satisfaction is defined as a result of a cognitive and affective evaluation, where some comparison standard is compared to the actually perceived performance. If the perceived is less than expected, account holders will be dissatisfied. On the other hand, if the perceived performance exceeds expectations, account holders' will be satisfied**(Lin,2003)[7].** Effective account holders' satisfaction investigation is a very important precondition for e-commerce area to win in market competition **(Fasanghari and Roudsari,2008)[8].**The rationale of this research is to recognize the impact of service quality factors on account holders' satisfaction in internet banking. Research questions which the study mainly focuses to find answers are given below:

II. Research Questions

- What are the service quality dimensions which satisfy the account holders' in internet banking?
- Which System is appropriate for measuring the factors affecting account holders' satisfaction in internet banking?
- How much is the impact of each of the criteria of internet banking services onaccount holders' satisfaction?

Banking industry has realized thesignificance of account holders'-centered philosophiesand is turning to quality management approachesto help managing their businesses. Manyscholars and service marketers have exploredconsumers' cognitive and affective responses tothe perception of service attributes in order tobenefit by providing what consumers need in aneffective and efficient manner. Consumersatisfaction is considered the

primary interveningconstructs in the area of service marketingbecause ultimately it leads to the development ofconsumer loyalty or re-patronization of aproduct or service **(Ravichandran et al., 2010)[9].**

Service quality and customers' satisfaction arevery important concepts, which must understandby companies that want to grow while keepingtheir competitive edge. In the moderncompetitive environments, delivering highservice quality is the key for a sustainable\ competitive advantage. Account holders' satisfactionhas a positive effect on bank'sprofitability. Satisfied account holders' of any businessrepeat purchase, show brand loyalty, and givepositive word of mouth. Many models have beendeveloped to measure service quality deliveredby firms in numerous businesses. It is importantto review service quality models because of itsrelation with account holders' satisfaction. Thus, servicequality has become a major area of interest ofpractitioners, managers and researchers becauseof its impact on account holders' satisfaction, account holders'loyalty, and of course, company profitability**(Zekiri, 2011)[10].**

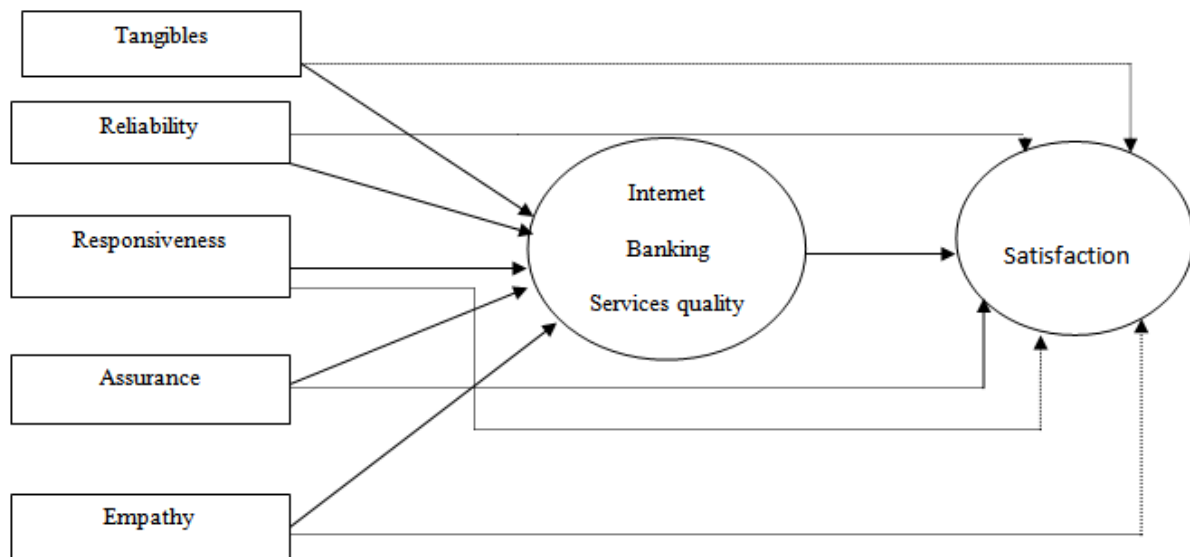## III. Theoretical Framework

Figure1: Theoretical frame work

Figure 1 presents the conceptual framework of the study as well as showing the hypotheses relationships between the constructs. The researcher has used the account holders' satisfaction as the dependent variable and the five dimensions of service quality - tangibles, reliability, responsiveness, assurance and empathy- are the independent variables.

IV. Review of Related Literature

E - Service is a service delivered to account holders or a potential buyer through a web site .E-Service quality is defined as difference between the service that a account holders' or a user of particular web site expects and the one actually provided by the web site **(Musiime and Malinga,2011)[11].Awad(2000)[12]** 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)[13],** 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 onest of the information society in Europe, there are numerous systems dealing with the evaluation of the e-service quality **(Mekovec and Kero,2007)[14].**Zeithamal, Parasuraman and Malhotra developed the e-servqual measure for electronic service quality to study account holders' judge about service quality. They identified seven dimensions-efficiency, reliability, fulfillment, privacy, responsiveness, recovery and contact to measure account holders' perception of service quality in online field .**Lociacono(2000)[15],** Watson and Goodhue planed a system which called Web Qual, and is used for measurement of website quality . **Wolfinberger and Gilly(2002)[16]** presented a scale named .comQ with four factors website design, reliability, security/privacy and account holders' service. Wolfinberger and Gilly(2002) 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. 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. 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 account holders' 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. Nupur(2010) investigated the impact of variables of e-banking on account holders' satisfaction in Bangladesh and argued that reliability, responsiveness, assurance, empathy and tangibles are the core service quality dimensions for account holders' satisfaction in e-banking. Musiime and Malinga (2011)argued that the factors that influence consumer adoption of Internet banking services and found positive relationship between internet banking service, account holders' adoption and account holders' 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)[17]** argued that perceived value, brand perception, cost effectiveness, easy to use, convenience, problem handling, security/assurance and responsiveness are important factors in account holders' satisfaction in e-banking. Gbadeyan and Akinyosoye(2011) argued that there is positive relation between account holders' 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)[18]** studied this relation in Nigerian Bank Industry. **Saeidipour, Vatandost and Akbari(2012)[19]** Studied the effect of development of electronic banking on account holders' satisfaction levels by using Kano model in Refah Bank of Kermanshah, Iran. **Jayanthi and Umarani(2012)[20]** found that nearly 90 percent of the account holders', 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. 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 account holders' satisfaction in internet banking. The main purpose of this study is to analyze the account holders' satisfaction level in internet banking in India.

V. Objectives
❖ To study the customer satisfaction towards internet banking service quality.
❖ To verify the relationship between service quality dimensions and customer satisfaction.

VI. Hypotheses
H1: Reliability has a significant relationship with the banks in Indian account holders' satisfaction towards internetbanking services.
H2: Empathy has a significant relationship with the Indian account holders' satisfaction of internet banking services.
H3: There is a significant relationship between Responsiveness and the account holders' satisfaction towards internet banking services offered by Indian banks.
H4: Tangibility has a significant relationship with the Indian banks' account holders' satisfaction towards internet banking services.
H5: Assurance has a significant relationship with the account holders' satisfaction of banks in India towards internet banking services.

VII.   Research Methodology
Banking industry in India has witnessed a lot of transformation with the introduction of Information and Communication Technology (ICT), and this has changed the processes and activities such as book keeping, retrieval of account holders' information, keeping of records of account holders' deposit and withdrawal, and cheque processing. Technology has brought about a complete paradigm shift in the functioning of banks and delivery of banking services. Gone were the days when every banking transaction required a visit to the bank branch. Today, most of the transactions can be done from the comfort of one's home and account holders' need not visit the bank branch for anything. Technology is no longer an enabler, but a business driver. The growth of the internet, internets and communication technology has added a different dimension to banking. The information technology (IT) available today is being leveraged in account holders' acquisitions, driving automation and process efficiency, delivering ease and efficiency to account holders'. This is an applied research study of descriptive-surveying kind. The data were collected by using questionnaire. It should be noted

that, in the design of the questionnaire, the questionnaire of the master thesis of **Saha and Zhao(2005)** also are used. Questionnaire consisted of two parts. Part-one is demographic characteristic of the sample. Part-two consisted of 41 positive worded statements pertaining to measure satisfaction of internet banking. Statements 1 to 7 for satisfaction of tangibility, statements 8 to 14 for satisfaction of reliability, statements 15 to 21 for satisfaction of responsiveness, statements 22 to 25 for satisfaction of assurance, statements 26 to 30 for satisfaction of empathy, statements 30 to 41 designed to measure the total satisfaction. The data were collected from account holders who use internet bank services in Tamil Nadu of India.

7.1Population and Sample
The strength of the account holders of the chosen banks of Public and Private sector functioning in the chosen region is 9627 and it is decided to choose 10% of the account holders from these chosen banks. Thus, the sample size of the study has arrived a rounded as 960.

7.2 Tool
Survey was conducted using Likert scale based questionnaire ranging from 1=strongly disagree to 5=strongly agree.

VIII.   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 64 account holders(7 per cent) out of 962 account holders having the qualification of school level, 174 respondents(18 per cent) having diploma as their educational qualification, 408 respondents(42 per cent) were under graduates, 276 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.

Table 1- Demographic Characteristics of the respondents (N=960)

	Variables	Frequency	Percentage (%)
Age	**Less than 25**	**56**	**6**
	26 – 40	**558**	**58**
	41 – 55	**274**	**28**
	Above 56	**72**	**08**
Educational Qualification	**School Level**	**64**	**07**
	Diploma	**174**	**18**
	Undergraduates	**498**	**42**
	Postgraduates	**276**	**29**
	Professional Degree	**38**	**04**
Gender	**Male**	**886**	**92**
	Female	**74**	**08**
Monthly Income (thousand)	**Less than 20**	**126**	**13**
	21 – 30	**208**	**22**
	31 – 40	**224**	**23**
	Above 40	**402**	**42**
E-banking Frequency	**Every day**	**18**	**02**
	3 – 4 Per week	**292**	**30**
	1 – 2 Per Month	**572**	**60**
	Less than 1 per month	**78**	**08**
Occupation	**Teaching**	**126**	**13**
	Business	**446**	**46**
	Professional	**96**	**10**
	Others	**292**	**31**

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 126 respondents are having their monthly income as less than 20 thousand,208 respondents are earning between 21 thousand and 30 thousand per month, 31-40 thousand is reported as the monthly income of 224 account holders whereas majority(42 per cent) of account holders are having more than 40 thousand as their monthly income. Most of the account holders (572) chosen as respondents of this study used to do e-banking 1-2 times in a month,292 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, 96 respondents(10 per cent) belong to Professional category and the rest of the respondents(31 per cent) belong to other category.

Table: 2 Description of the variables.

Variable	Number	Rank	Minimum	Maximum	Average	Standard Deviation	Variance
Reliability (R)	960	16	14	30	20.2734	2.6139	5.319
Empathy (E)	960	17	12	30	19.7214	2.4889	6.230
Responsiveness (RE)	960	25	05	30	18.6130	2.994	11.917
Tangibles (T)	960	11	07	18	11.4220	2.5867	2.845
Assurance (A)	960	78	63	141	97.0036	8.5764	91.149
Account holders' Satisfaction (SAT)	960	39	26	65	39.7	4.9165	28.225

It is known from **Table 2**that the average of variables reliability, empathy, responsiveness, tangibles and assurance are equivalent to 20.2734,19.7214,18.6130, 11.4220 and 97.0036. Dependent variable account holders' satisfaction in internet banking is 39.7. First, we need to analyze the data to understand that the data is normal or not, For the purpose of this object Kolmogorov - Smirnov (K-S) is used to check the normality of the variables. Assuming the test is as follows:

H_0: Distribution is Normal (Sig $\geq$ 0.05).
H_1: Distribution isn't Normal (Sig < 0.05).

Table: 3 kolmogorov-smirnov test

	R	E	RE	T	A	SAT
Number	960	960	960	960	960	960
Average	20.2734	19.7214	18.6130	11.4210	97.0036	39.7
Standard deviation	2.61392	2.48891	2.99437	2.586723	8.57645	4.91658
Test	2.124	2.112	2.401	2.505	2.367	2.570
Significant	.000	.000	.000	.000	.000	.000

According to **Table 3** and the value obtained for the p-value 95% confidence level, the significant level α=0.05.Observations strongly suggest that the framed research hypotheses(H_0) are rejected, with 95% so it could be claimed that any of the independent variables and the dependent variable follows a normal distribution. Therefore, it is necessary to analyze data by using non-parametric tests. To investigate the correlation between variables, Spearman correlation coefficient (non-parametric) was used. **Table 4** shows the correlation of the variables.

According to **Table 4** at a confidence level of 99 % of p-value Relationship between the dependent variable is equal to 0.000 for service quality in internet banking and independent variables, reliability, empathy, responsiveness and tangible areapproved. Therefore, hypotheses 1 to 4 are confirmed. For test of hypothesis 5, Spearman coefficient correlation was used. Coefficient correlation was equivalent to 0.582 in the significant level α=0.01. Therefore,the hypothesis 5 is confirmed.

Table: 4 Coefficient correlations between original research variables and account holders' satisfaction

Dependent variable	Reliability	Empathy	Responsiveness	Tangible	Assurance
Quality of service	0.534	0.524	0.725	0.507	0.582
Sig	0.000	0.000	0.000	0.000	0.000

So far in this study, five dimensions- reliability,tangible,empathy, responsiveness and assurancehave beenexamined. In order to determine the ranking, the importance of each of these factors in increasing the satisfaction in Internet banking, the Freedman test was used. **Table 5** shows significant value as 0.00, it means average of variables is significantly differed from each of the five variables of satisfaction. Reliability has most influence on account holders' satisfaction and Responsiveness has less influence on account holders' satisfaction in Internet Banking.

Table: 5 Freedman Test

Variables	Average Ratings
Reliability	4.05
Tangible	3.75
Empathy	3.68
Assurance	3.48
Responsiveness	3.11

IX. Conclusion

This research study has been carried out based on the previous literature, reliability, empathy, responsiveness, tangible, and assurance as internet banking service quality dimensions were identified and proposed indicators to measure account holders' satisfaction towards internet banking services.Tangibility has a

significant relationship with the Indian banks' account holders' satisfaction acknowledged that these indicators are presented to evaluate the service quality and account holders' satisfaction as a result of Internet banking in India. The results indicate that the reliability index has the most effective and responsiveness has the least effective on account holders' satisfaction than other indicators. Since the average account holders' satisfaction does not differ between the responsiveness of different banks can be the result of different banks in our country in terms of quality of responsiveness is not statistically significant. As a proposal for a study of the future, implementation of this model in banks and recognized the results was the investigation system has been designed in this research recommended in other banking organizations.

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