

Customer References Towards E-Banking With References to Banks Located in Urban and Rural Areas

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ABSTRACT:

Advent and adoption of internet by the industries has removed the constraint of time, distance and communication making globe truly a small village. Financial sector being no exception, numerous factors such as competitive cost, customer service, increase in education and income level of customers etc. influence banks to evaluate their technology and assess their electronic commerce and e-banking strategies. E-banking provides speedier, faster and reliable services to the customers. This study aims to evaluate the service quality of E-banking from customers' perspective. This paper is divided into two sections. First section presents the introduction of e-banking, status of e-banking in India, through the literature available in the field.

It also includes the review of the various services provided by the banks under the study. Second section presents the results obtained on the basis of the data collected. A structured questionnaire containing 26 quality items is administered to various target groups. Various statistical tools like factor analysis and ANOVA are used accordingly to compile the result. The result shows that customers are more satisfied with quality of service on reliability than the services like accessibility, user-friendliness, security and responsiveness. The study not only prioritizes different parameters but also provide guidelines to bankers to focus on the parameters which they need to improve. The study concludes that these factors are the core service quality dimensions for customers' satisfaction in e-banking.

Keywords:

E-banking, Financial Sector, Service quality.

1. INTRODUCTION:

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, legal and regulatory framework. E-banking offers speedier, quicker and dependable services to the customers through which they are more satisfied than that of manual system of banking. E-banking system not only generates viable return, but also ensures better dealings with customers. The rationale of this research is to recognize the impact of variables of e-banking on customer pleasure.

Banking sector is modernizing tremendously and expanding in different financial spheres. Simultaneously banking is becoming faster and easier. In order to survive in the global competitive era, commercial banks are seeking for better service opportunities to enhance customers' satisfaction. Businesses seeking to improve profitability are thus advised to monitor and to upgrade their service quality on an ongoing basis (Gerrard and Cunningham, 2005). Technology plays a vital role in improving the quality of services provided by the business units. One of the technologies which really brought information revolution in the society is internet technology and is rightly regarded as the third wave of revolution after agricultural and industrial revolution. E-banking allows banking from anywhere, anytime and is used for transactions, payments etc. over the internet through a bank's website.

In contrast to traditional banking, e-banking involves non-human interactions between customers and online bank information system. Customer satisfaction, customer retention and new customer acquisition are the key factors in e-banking. E-banking is a new delivery channel for banks in India. The e-banking is both an informative and a transactional medium. However, e-banking has not been popularly adopted in India as expected (Ravi, 2007). Malhotra and Singh (2007) carried out a study to find the e-banking adoption by banks in India. The study suggests that larger banks or banks with younger age, private ownership and lower branch intensity possess high probability of adoption of this new technology. Banks with lower market share also perceive e-banking technology as a means to increase the market share by attracting more and more customers through this new delivery channel. However, the service quality in e-banking from customers' needs thorough analysis to find out the determinants for success and growth of new delivery channel in India. To this end, this study aims at determining the service quality of banks operative in India with regards to e-banking and identifying the important parameters for service quality from customers' perspective.

2. LITERATURE REVIEW:

Current research effort in the field of usability studies covers the work of e.g. (Pearson, and Pearson, A. 2008), which proved that ease of use and navigation are two critical components in determining website usability. Another example is the work of (Cappel, J. and Huang, Z. 2007), which showed that most of the improvement potentials of company websites' usability is related to link appearance, navigation and the inclusion of more positive features such as breadcrumb trails and search boxes to improve usability. (Tarafdar, M. and Zhang, J. 2007) identified usability as a significant predictor of reach, one of the two website performance indicators. In this paper, (Liao, Z. and Cheung, M. 2008) define six service quality attributes and examine their effects on CSIBS (customer

satisfaction in e-banking services). Regarding the derivation of these six attributes, they refer to the Technology Acceptance Model (Davis, F. 1989) and to the SERQUAL model (Parasuraman, A. Zeithaml, V. and Berry, L. 1988). Results show that each service quality attribute has a positive effect on CSIBS, but this impact has not yet been quantified. This paper differs from (Liao, Z. and Cheung, M. 2008) in so far as they developed a model explaining the relationship between usability dimensions and success variables and consecutively validate it in the context of e-banking applications. Based on the literature review, certain fundamental research gaps have been identified like the methods for assessing usability of a system are much more discussed than their content – the usability issues – themselves. Quality, effectiveness and efficiency of usability methods are being discussed based on the issues found while the nature of an issue and its importance are not being analyzed. There is no content framework that systemizes usability issues in order to make them comparable.

There is a shortcoming concerning clearly defined usability standards (Sears, A. and Jacko, J. 2007, p. 1107). Contentual statements about usability of websites are usually subjective and are often based on either practical knowledge of experts or detailed formation guidelines (Burmester, M. and Machate, J. 2003). The latter have been developed in practice without systematic scientific verification. Also in many cases the cost – benefit relation of website usability is not clear, neither to companies nor within publications (Bias, R. and Mayhew, D. 1994, p. 16). This could be attributed to the fact that the term success or benefit of website usability is not differentiated and is only vaguely used. Sometimes these terms are even used in a contradictory way (Kuniavsky, M. 2003, p. 353). Success criteria are often composed of the constructs “perceived usefulness” and “perceived ease of use” (Ratner, J. 2003 p. 19), deriving from Davis “Technology Acceptance Model” (Davis, F. 1989, p. 320).

3. OBJECTIVES OF THE STUDY:

- To ascertain the level of customer preference towards in e-banking.
- To evaluate the different factors considered by the customers while choosing the bank for E-banking services.
- To offer suggestions to enhance the quality of customer services in e-banking.

4. RESEARCH HYPOTHESES:

The growing importance of service quality leads us to examine the following questions concerning the relationship among service quality, customer satisfaction and customer retention in the service area of E-banking.

H: There is no significant relationship between the gender and the level of customers' satisfaction.

H: There is no difference between the age group with various variables of the bank regarding e-banking.

H: There is no difference in the monthly income of the customers of various banks and the level of customers' satisfaction.

H: Education is not the deciding factor while deciding the efficiency of the E-banking services.

5. METHODOLOGY:

The present study is of analytical and exploratory in nature. One of the primary concerns of this paper is to identify the important parameters affecting the service quality of e-banking. The data required for this study are collected from both primary and secondary sources. Initially a 'Pilot Study' was conducted for testing the questionnaire. The proposed study is to find out the quality of customer service in e-banking. The population is uncountable and is considered as infinite. Customers with at least one year of experience in e-banking are identified by visiting retail branches/ATM branches of different banks across.

The survey instrument is administered through the medium of internet with an e-mail attachment of questionnaire and directly distributing the questionnaire. However the study is not restricted to any specific bank, so the proposed sample for the study is 200 respondents from both public and private sector banks namely state bank of India, karur vyasa bank, HDFC, Tamilnadu mercantile bank, ICICI, Indian overseas bank and UCO bank in Tirunelveli. located in urban and rural areas. The universe of the study is the account holders of public and private sector banks and the sampling technique adopted is convenient sampling method. The collected data are analyzed with the help of tools like Factor Analysis, ANOVA and percentage.

6. DATA FINDINGS:

Out of the total respondents 88% are in between the age group 25-45 yrs. Out of which, male are 88% and the female 13%. 58% of the customers are graduates, 34% post graduates and 9% others. 42% of them are software professionals and 25% are in teaching. 75% customers' monthly income falls above Rs. 25, 000. After acquiring knowledge regarding the online banking services, several questions were asked to the different respondents related to online service and their expectations about it.

FACTOR ANALYSIS:

The factor analysis is mainly employed for the following purposes:

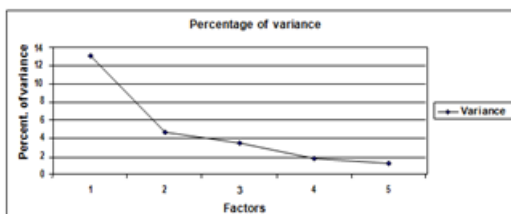
1. For data reduction
2. For identifying the most influential factor.

In this section the factor analysis under extraction method of principal component analysis is employed to identify the important aspects relating to the quality of customer service with e-banking.

Table 1 Factor Analysis						
Variable	Variable definition	F	F	F3	F	F
Reliability						
Var 1	The bank authority cares to	0.9				
Var 2	Knowledge and skill of the	1				
Var 3	You can rely on bank for	0.9				
Var 4	The website is available in	0.9				
Var 5	The bank is easy to approach	0.9				
Var 6	Information provided in	0.8				
Var 7	You are able to talk to a	0.7				
Var 8	The bank's site provides a	0.7				
Var 9	The bank provides appropriate	0.7				
Var 10	The bank provides all details	0.6				
Var 11	The bank takes care and	0.6				
Accessibility						
Var 12	It is easy to find policy and	0.9				
Var 13	The speed of logout of your	0.9				
Var 14	The speed of login of your	0.8				
Var 15	The bank's site is secured for	0.6				
Efficiency						
Var 16	Information content and texts	0.				
Var 17	The web pages do not freeze	0.				
Var 18	The web pages are functioning	0.				
Var 19	The bank's site has	0.				
Var 20	The bank's site performs the	0.				
	right service at the first time	57				
User-friendliness						
Var 21	The bank's site is easy to	0.				
Var 22	The bank provides the updated	0.				
Var 23	Links in bank's website are	0.				
Var 24	Personalization of bank's site	0.				
Responsiveness						
Var 25	The bank provides financial	0.				
Var 26	You can rely on the personal	0.				

It is found from the table that among the 26 aspects relating to the quality of customer service with e-banking, 14 aspects are considered as more important than the other aspects because of their expectation value more than 0.76. Important factors are identified with extraction value more than 0.76. The results are presented in the following tables, which describes the extraction values for each aspect relating to quality of customer service with e-banking through principal component analysis [21].

1. FACTORS INFLUENCING CUSTOMERS' SERVICE:



Factors:

F1 – Reliability, F2 – Accessibility, F3 – Efficiency, F4 – User-friendliness, F5 – Responsiveness

From the chart given above, it is clear that customers give more preference for reliability which includes services like accuracy of information provided in website, not misusing their information, solving queries, then comes factors like accessibility, efficiency, user-friendliness and responsiveness, the least. It clearly indicates that the bank should concentrate more on services like effective functioning of the web pages, providing more security and confidentiality regarding the information provided by the customers, designing the website in simple and easy way to use etc.

Table 2 Overall Percentage of the Respondents who Avail the E-banking Services is Given Below

Name of bank	No. of respondents	Overa
KVB	17	9%
SBI	33	17%
HDFC	17	9%
TMB	17	9%
ICICI	66	32%
IOB	34	17%
UCO	16	7%

Table 2 depicts the accessibility of e-banking services of various banks. Highest scoring is the ICICI Bank, followed by IOB and SBI. Third place is backed up three banks namely KVB, HDFC and TMB. Least is the accessibility of internet services of UCO bank.

ANALYSIS OF VARIANCE:

F-test is applied to find out whether there is significant difference in the level of customers' satisfaction among the banks chosen for the survey.

Table 3

Gender	D. F	Sum of squares	Mean squares	F-ratio	Sig
Between groups	1	0.69	0.69	0.12	0.7323
Within groups	19	1158.47	5.85		

Table value of F = 3.84 at 5% level of significance.

The calculated value is less than the table value in Table 3, which means the null hypothesis is accepted. It is statistically inferred that there is no significant difference between the genders as far as the level of customers' satisfaction level is concerned.

Table 4

Age group	D.F	Sum of Mean squares	F-ratio	F-
Between groups	2	21.73	10.86	1.88
Within groups	197	1137.43	5.78	0.155

Table value of F = 3.00 at 5% level.

In Table 4, the calculated value is less than the table value, so the null hypothesis is accepted. It means that there is no significant difference between the age group with various variables of the bank regarding e-banking.

Table 5

Monthly	D.F	Sum of Mean	F-ratio	F-
Between	1	0.6	0.6	0.1
Within groups	198	1158.55	5.85	0.748

Table value of F = 3.84 at 5% level.

In Table 5, the calculated value is less than the table value, so the null hypothesis is accepted. It means that there is no significant difference in the monthly income of the customers and the level of customers' satisfaction.

Table 6

Education	D.F	Sum of Mean	F Ratio	F
Between	2	48.72	24.36	4.32
Within groups	197	1110.44	5.64	0.014

Table value of F = 3.00 at 5% level.

The calculated value is more than the table value in Table 6, the null hypothesis is not accepted. It means that there is significant difference on the basis of the education in deciding the efficiency of the E-banking.

COEFFICIENT OF VARIATION:

The coefficient of variation provides a basis for comparing the variances of distributions using different measures. Some of them are given below:

Table 7

Gender	Mean	Std. Dev	Coefficient of
Male	17.79	6.61	37%
Female	13.56	3.81	28%

Table 7

According to Table 7, for reliable services in E-banking like bank authorities solving queries, knowledge of their contact personnel, information provided in the bank's website, the female customers (28%) is more consistent than the male customers (37%).

Table 8

Gender	Mean	Std. Dev	Coefficient of
Male	7.76	2.15	28%
Female	4.96	1.43	29%

Regarding accessibility of the e-banking services given in Table 8, there is not much variation in case of both male and female customers, as the coefficient of variation is almost the equal, showing that they have same attitude towards the accessible services of the bank like logging in and out, finding policy, notice and statement.

Table 9

Gender	Mean	Std. Dev	Coefficient of
Male	7.41	2.68	36%
Female	5.28	1.9	36%

Similarly, in case of user friendliness of the e-banking services in Table 9, the coefficient of variation is equal, which means both male and female customers have the same attitude towards the services provided by the bank.

Based on the results of factor analysis, the variables are classified into five dimensions, which are suitably named. The dimensions and the corresponding variables are shown below.

Table 10

Dimensions Variables	
Reliability (F1)	Var 1, Var 2, Var 3, Var 4, Var 5, Var 6, Var 7, Var 8, Var 9, Var 10, Var 11
Accessibility(F2)	Var 12, Var 13, Var 14, Var 15
Efficiency(F3)	Var 16, Var 17, Var 18, Var 19, Var 20
User-friendliness (F4)	Var 21, Var 22, Var 23, Var 24
Responsiveness(F5)	Var 25, Var 26

The variables given in Table 10 are analyzed on various dimensions which are as follows:

The variables given in Table 10 are analyzed on various dimensions which are as follows:

In **reliability** (F1), the bank authorities care to listen and solve the queries having a factor loading of 0.981 indicates that the factor strongly influences the variable whereas, the bank taking care and compensating for the problem they create with a factor loading of 0.628 indicates that more attention is needed.

In **Accessibility** (F2), policies and notice statement on the bank's site with a factor loading of 0.907 indicates strong influence whereas the credit card related information is with the least factor loading of 0.625, which indicates the need for more concentration.

In case of **Efficiency** (F3), the information content and texts are easy to understand comes first by showing a strong influence of 0.864 whereas the bank's site performing the service right at first time shows that the bank should focus more comes the least with 0.575 factor loading.

In **User-friendliness** (F4), the variable, bank's site is easy to navigate and simple to use strongly influences customer satisfaction with 0.882 factor loading and the personalization of bank's site for customers' personal

requirement has the least factor loading of 0.635 where the bank should focus more attention.

In case of **Responsiveness** (F5) the bank providing financial security and confidentiality shows strong influence with 0.740 and relying on the personal information in the website scores the least factor loading of 0.698 which shows the required attention by the banks.

Generally, factor loading represents how much factor explains a variable. High loading indicates that the factor strongly influences the variable. Assuming a factor loading of more than 0.76 as having high impact on the variables, it is concluded from the above Table 2 that some variables which are less than 0.76 need attention for the service quality improvement of e-banking.

7. HYPOTHESIS TESTING AND FINDINGS BASED ON ANALYSIS OF VARIANCE

In case of Table 3 the calculated value is less than the tabulated value, the null hypothesis is accepted which means that there is no significant difference between the genders as far as the level of customers' satisfaction is concerned. The calculated value is less than the tabulated value in the Table 4, which means the null hypothesis is accepted and has no significant difference between the age group with various variables of the bank regarding e-banking. In case of Table 5, the calculated value is less than the tabulated value, so the null hypothesis is accepted. It means that there is no significant difference in the monthly income of the customers of various banks. The calculated value is more than the tabulated value in Table 6, the null hypothesis is rejected. It means that there is significant difference on the basis of the education in deciding the efficiency of the E-banking. Analysis of Variance is employed for testing the hypothesis of this research after extraction of four independent variables from factor analysis.

Results for quality of customers' satisfaction are showed in Table 3, 4, 5 and 6. Result of these tables show that they significantly affect the customers' satisfaction regarding service quality of E-banking. Analysis of variance shows that hypothesis 1, 2 and 3 are accepted with strong statistical significance whereas hypothesis 4 is rejected, which shows that education of the customers' influences in deciding the quality of E-banking.

8. SUGGESTIONS:

The following suggestions are the outcome of the research:

Every bank should take precautions to keep customers' experience safe. It should take consistent efforts to safeguard online banking transactions. All internet banks should provide close interaction between bank service and web based e-commerce and even service through direct electronic payments. Banks should provide more convenient e-banking services. Banks should ensure more customer awareness and transparency in their e-banking dealings. Banks should come up with innovative ways of service at their door steps; this may be a costly affair but will surely give positive results in the long run.

9. SCOPE FOR FUTURE RESEARCH:

There is a wide scope to extend this study in the future. Future researchers may continue the same study or they can study by taking the private sector and public sector banks as a comparison. The study may be done as a worldwide study to bring the potential of the e-banking services of different countries.

10. CONCLUSION:

Online banking is increasingly used by banks and other financial service providers to gain competitive advantages, operational efficiencies and direct marketing opportunities. It is important to reaffirm that Electronic banking is a new phenomenon.

We have observed a major change from metal and paper money, to plastic cards, to smart cards, to online payments and fund transfers. The higher availability of a back action results in notably positive effects on usability. The rejected hypotheses could be subject to further research. By means of additional experiments, a modified test design could be assessed in order to confirm or reject the first experiment's outcome. Every hypothesis has been tested with at least one task. Further research could also consist of a comparative study for the new platform generation.

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