

Customer Satisfaction Towards Online Banking With Reference to Banks Located in Urban and Rural Areas-A Comparative Study

Dr. P.Yadaiah

MBA, Ph.D, (UGC-PDF),

Department of Business Management,
Osmania University, Hyderabad.

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 internet banking strategies. Internet banking provides speedier, faster and reliable services to the customers. This study aims to evaluate the service quality of Internet banking from customers' perspective. This paper is divided into two sections. First section presents the introduction of internet banking, status of internet 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 internet banking.

Keywords:

Internet banking, Customers' satisfaction, 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.

Internet 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, internet 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 internet banking.

Internet banking is a new delivery channel for banks in India. The internet banking is both an informative and a transactional medium. However, internet banking has not been popularly adopted in India as expected (Ravi, 2007). Malhotra and Singh (2007) carried out a study to find the internet 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 internet 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 internet 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 internet banking and identifying the important parameters for service quality from customers' perspective.

The purpose of this study is to explain the relationship between usability dimensions and success variables. The banking industry is chosen because of the fact that Internet banking applications are considered one of the most successful and most established internet applications ever (Pikkarainen, 2004, p. 224) and the fact that internet banking contains many interesting characteristics from the usability point of view (multi-stage processes, diverse and complex basis, independent transactions etc.).

MEASURING CUSTOMERS' SATISFACTION IN THE BANKING INDUSTRY

Banking operations are becoming increasingly customer dictated. The demand for 'banking super malls' offering one-stop integrated financial services is well on the rise. The ability of banks to offer clients access to several markets for different classes of financial instruments has become a valuable competitive edge. With the explosion of the country's population and the increased demand for banking services – speed and quality of service are the key differentiators for bank's future success. Thus it is imperative for banks to get feedback regarding quality aspects of retail banking, which in turn will help them to take remedial measures to maintain a competitive edge.

Customer's mind is a mystery which is difficult to predict and understand the perception to attain satisfaction is a challenging task. This exercise in the context of the banking industry will give us an insight into the parameters of customers' satisfaction and their measurement. The customers' requirements must be translated and quantified into measurable targets. This provides an easy way to monitor improvements, and to decide the attributes that need to be concentrated in order to improve customers' satisfaction.

NEED TO MEASURE CUSTOMERS' SATISFACTION

Satisfied customers are central to optimal performance and financial returns. Customers are viewed as a group whose satisfaction with the enterprise must be incorporated in strategic planning efforts. With better understanding of customers' perceptions, companies can determine the actions required to meet the customers' needs. They can identify their own strengths and weaknesses, where they stand in comparison to their competitors, chart out path for future progress and improvement. As buyers become empowered, sellers have no choice but to adapt. The service industries are mostly customer driven and their survival in competitive environment largely depends on quality of the service provided by them. No other medium other than the Internet – the fastest growing form of communication media in history (Berners –Lee, T. and Fischetti, M.1999) – has ever confronted its (new) users with such a vast and diverse difficulties of use. Users – especially beginners – can fail at several hurdles like issues related to technical infrastructure and the appropriate use of a computer.

Not only users but also organizations are affected adversely due to these difficulties. Sales and saving potential is endangered when users are not able to easily and quickly complete the essential search and order processes. Deficient usability exposes successful online business transactions at risk. Customers' satisfaction is quite a complex issue and there is a lot of debate and confusion about what exactly is required and how to go about it. This article is an attempt to review the necessary requirements, and discuss the steps to be taken to measure and track customers' satisfaction.

DEVELOPMENT OF INTERNET BANKING IN INDIA

The financial reforms that were initiated in the early 1990s and the globalization and liberalization measures brought in a completely new operating environment to the banks. The bankers are now offering innovative and attractive technology – based services and products such as "Anywhere Anytime Banking", "Tele Banking", "Internet Banking" etc. to their customers to cope with the competition. The process started in the early 1980s when Reserve Bank of India (RBI) set up two committees in quick succession to accelerate the pace of automation of operations in the banking sector.

A high – level committee was formed under the chairmanship of Dr. C. Rangarajan, then Governor of RBI, to draw up a phased plan for computerization and mechanization in the banking industry over a five –year time frame of 1985-1989. The focus by that time was on customer service and two models of branch automation were developed and implemented. Having gained experience in the earlier mode of computerization, the second Rangarajan committee constituted in 1988 drew up a detailed perspective plan for computerization of banks for extension of automation to other areas such as funds transfer, e-mail, ATMs, internet banking etc. The Government of India enacted the Information Technology Act, 2000, with effect from 17 October 2000 to provide legal recognition to electronic transactions and other means of electronic commerce. Internet banking in India is currently at a nascent stage. ICICI bank is the pioneer to have introduced internet banking for a limited range of services such as access to account information, correspondence and funds transfer among its branches.

STATUS OF INTERNET BANKING IN INDIA

In Indian context, many publications throw light over the importance of internet banking and also its prospects for the Indian banking industry. Unnithan and Swatman (2001) studied the drivers for change in the evolution of the banking sector, and the move towards electronic banking by focusing on two economies, Australia and India. The study found that Australia is a country with internet- ready infrastructure as far as telecommunications, secure protocols, PC penetration and consumers' literacy are concerned. India, by comparison, is overwhelmed by weak infrastructure, low PC penetration, developing security protocols and consumer reluctance in rural sector. Although many major banks have started offering internet banking services, the slow pace will continue until the critical mass is achieved for PC, internet connections and telephones. Rao and Prathima (2003) provided a theoretical analysis of internet banking in India, and found that as compared to the banks abroad, Indian banks offering online services still have a long way to go. For online banking to reach a critical mass, there has to be sufficient number of users and the sufficient infrastructure in place. However, it is still in its evolutionary stage. A survey carried by Malhotra and Singh shows that only 48 % of the commercial banks operating in India as on March – end 2005 offers internet banking.

In India, comparatively less number of studies has been conducted on the current status of internet banking and customer satisfaction compared to other countries. Thus, there is a lot of scope for the research to present new ideas concerning internet banking in India which may be useful to the Indian banking industry. To succeed in today's electronic markets, a strategic and focused approach is required.

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 internet 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 internet 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 (Burmaster, 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. SIGNIFICANCE OF THE STUDY

One of the most important developments in banking sector has been the growth of the financial industry over the past two decades. The benefits of financial industry can be seen in the form of large scale industrial development, increased employment opportunities, higher turnover as well as revenue generation to the government and also increase in export of goods and services. Investments play a vital role on the part of the customers. A real investor does not simply throw his or her money as random investment; he or she performs through analysis and commits capital only when there is reasonable expectation of profit. Today banks have a relationship management approach with their clients. Thus delivering high quality service to clients is just as important as delivering performance that meets or exceeds their expectations. It is in this context that a study is necessary to know the levels of awareness regarding the quality of customer services in internet banking.

4. OBJECTIVES OF THE STUDY:

This paper aims to examine the scenario of Quality of customer service in internet banking. In this broader framework, an attempt is made to achieve the following specific objectives:

- » To ascertain the level of customers’ satisfaction in internet banking.
- » To evaluate the different factors considered by the customers while choosing the bank for Internet banking services.
- » To offer suggestions to enhance the quality of customer services in internet banking.

5. 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 Internet banking.

- 1.H : There is no significant relationship between the genders and the level of customers’ satisfaction .
- 2.H : There is no difference between the age group with various variables of the bank regarding internet banking.
- 3.H : There is no difference in the monthly income of the customers of various banks and the level of customers’ satisfaction.
- 4.H : Education is not the deciding factor while deciding the efficiency of the Internet banking services.

6. 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 internet 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 pilot study helped in executing certain improvements in the final questionnaire. A structured questionnaire is prepared for the respondents in order to collect primary data. The questionnaire is designed based on the objectives of the study. The questionnaire consists of two parts. The first part comprises 7 questions concerning the personal profile of the respondents and the second part consisting of 26 questions to explore the respondents’ perception about the service quality of internet banking.

7. SOURCES OF DATA

The required data is gathered through primary and secondary sources. Primary data are those which are collected afresh and for the first time, and thus happen to be original in character. It is collected through questionnaire. Secondary data is collected from the records like books, journals, reports, magazines, periodicals and the relevant websites.

8. UNIVERSE

The proposed study is to find out the quality of customer service in internet banking. The population is uncountable and is considered as infinite.

Customers with at least one year of experience in internet banking are identified by visiting retail branches/ATM branches of different banks across.

9. AREA OF STUDY

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.

10. DATA ANALYSIS

This paper focuses that on the quality aspects of internet banking and the consequent customers' satisfaction. This paper examines the level of customers' satisfaction with special reference to problems faced, accuracy of web pages of the bank, bank's responsiveness with respect to internet banking activities. The paper also examines the relationship between the skills and responsiveness of the bank personnel, efficiency of the bank's website and its interplay with customers' satisfaction.

11. SAMPLING METHOD

The universe of the study is the account holders of public and private sector banks and the sampling technique adopted is convenient sampling method.

12. STATISTICAL TOOLS AND TECHNIQUES

The collected data are analyzed with the help of tools like Factor Analysis, ANOVA and percentage.

13. LIMITATIONS OF THE STUDY

Only customers of urban area are considered, though many respondents have a little knowledge about the internet banking services. Further, there was reluctance on the part of customers to respond the questionnaire. The cost and time factors are the other limitations. However, adequate care is taken to collect unbiased data.

14. ANALYSIS AND INTERPRETATION

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.

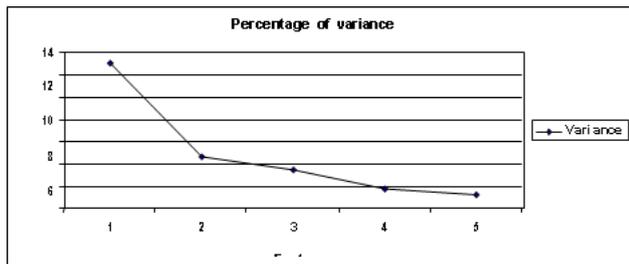
In this section the factor analysis under extraction method of principal component analysis is employed to identify the important aspects relating to the quality of customer service with internet banking.

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 right service at the first time			0.		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 internet 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 internet banking through principal component analysis.

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 Internet Banking Services is Given Below

Name of bank	No. of respondents	Overall
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 internet 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 Mean squares	F-ratio	Sig.
Between groups	1	0.69	0.69	0.12
Within groups	198	1158.47	5.85	3

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	

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 internet 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	

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 Internet 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%

According to Table 7, for reliable services in Internet 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 internet 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 internet 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.

15. DATA FINDINGS

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:

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 internet banking.

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 internet 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 Internet 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 Internet 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 Internet banking.

16. 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 internet banking services.
- » Banks should ensure more customer awareness and transparency in their internet 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.

17. 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 internet banking services of different countries.

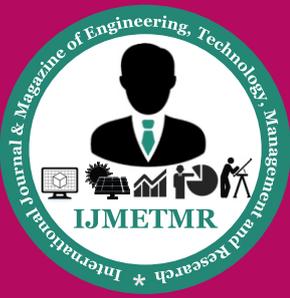
18. CONCLUSION

This report describes in a nutshell the evolution of banking and defines banking technology as a Consortium of several disciplines, namely finance subsuming risk management, information and communication technology, computer science, and marketing science. It also highlights the quintessential role played by these disciplines in helping banks: (1) run their day-to-day operations in offering efficient, reliable, and secure services to customers; (2) meet their business objectives of attracting more customers and thereby making huge profits. 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. In summary, it is quite clear that banking technology has emerged as a separate discipline in its own right. As regards future directions, the proliferating research in all fields of Technology and computer science can make steady inroads into banking technology because any new research idea in these disciplines can potentially have a great impact on banking technology. Users of ebanking can perform common banking tasks such as writing checks, paying bills, transferring funds, printing statements & balance inquiry etc. Internet banking has evolved into 'one stop service and information unit' that promises great benefits to all i.e. banks, consumers, citizens, employees and government. E Banking is poised to become most promising partner in governance process.

REFERENCES

1. Bias R., and Mayhew D., (1994), Cost-Justifying Usability, Boston: Academic Press. Banknet India.
2. Burmester M., and Machate J., (2003), Creative Design of Interactive Products and Use of Usability Guidelines – A Contradiction? In Jacko J., and Sears A., (Eds), The Human-Computer Interaction Handbook, 43-47, New Jersey, Lawrence Erlbaum Associates.
3. Cappel J., and Huang Z., (2007), A usability Analysis of Company Websites, The Journal of Computer Information Systems, 48(1): 117-123.
4. Dasgupta P., (2002), Future of e-Banking in India, Available Online at: www.projectshub.com
5. Davis F., (1989), Perceived Usefulness, Perceived Ease of Use, And User Acceptance of Information Technology, MIS Quarterly, 13(3): 19-340.
6. Ghobadian A., (1994), 'Service Quality: Concepts and Models', International Journal of Quality and Reliability Management, 11(9): 43-66.
7. Gupta D., (1999), 'Internet Banking: Where Does India Stand?', Journal of Contemporary Management, 2(1), December
8. Holt M., (2000), Strategy: Ten Steps Toward a Better Website Design, Bangkok Post, B975542.
9. Jayawardhena C., and Foley P., (1998), 'Overcoming Constraints on Electronic Commerce– Internet Payment Systems', Journal of General Management, 24(2): 66-82.
10. Kuniavsky M., (2003), Observing the User Experience, San Francisco, Morgan Kaufmann Publishers.
11. Liao Z., and Cheung M., (2008), Measuring Consumer Satisfaction in Internet Banking: A Core Framework, Communications of the ACM. 51(4): 47-51.
12. Malhotra P., and Singh B., (2007), 'Determinants of Internet Banking Adoption by Banks in India', Internet Research, 17(3): 323-339.
13. Norman R. Kurtz, (1999), Statistical Analysis for the Social Sciences.
14. Parasuraman A., Zeithaml V., and Berry L., (1988), SERVQUAL: A Multiple-Item Scale for Measuring Customer Perceptions of Service Quality, Journal of Retailing, 64(1): 12-40.
15. Pearson M., and Pearson A., (2008), An Exploratory Study Into Determining the Relative Importance of Key Criteria in Web Usability: A Multi-Criteria Approach, The Journal of Computer Information Systems, 48(4): 115-127.
16. Pegu R., (2000), 'Net-Banking is Fast Becoming Popular', The Week, (25 June). Pikkarainen T., Pikkarainen K., Karjaluoto K., and Pahlila S., (2004), Consumer Acceptance of Online Banking: An Extension of the Technology Acceptance Model, Internet Research, 14(3): 224-35.
17. Rao G. R., and Prathima K., (2003), 'Internet Banking in India', Mondaq Business Briefing, (11 April).
18. Ravi V., Mahil C., and Vidya Sagar N., (2007), 'Profiling of Internet Banking Users in India Using Intelligent Techniques', Journal of Services Research, 6(2): 61-73, (October 2006-March 2007).
19. RBI Monthly Bulletin.
20. Sears A., and Jacko J., (2007), The Human-Computer Interaction Handbook, New Jersey, Lawrence Erlbaum Associates.



21. Tarafdar M., and Zhang J., (2007), Determinants of Reach and Loyalty – A Study of Website Performance and Implications for Website Design, *The Journal of Computer Information Systems*, 48(2): 16-24.

22. Unnithan C. R., and Swatman P., (2001), E-Banking Adaptation and Dot. Com Viability: A Comparison of Australian and Indian Experiences in the Banking Sector, Working Paper, School of Management Information Systems, Deakin University, No. 14.