

Perception of Bank Customers on e-Banking Services - A Study with Special Reference to SBI Customers of Madras University Branch

K. Janaki^{1*} and S. Gurusamy²

¹Full time Ph.D Research Scholar, Department of Commerce, University of Madras, Chepauk, Chennai - 600005, Tamil Nadu, India; janakikmr@gmail.com

²Professor and Head, Department of Commerce, Chairperson – School of Business and Management Studies, University of Madras, Chepauk, Chennai – 600005, Tamil Nadu, India; professorsg@yahoo.com

Abstract

e-Banking is an electronic mode of transaction. It enables any individuals, customers, financial institutions to have any transactions through the financial institution's website. e-Banking typically connect to or be a part of the core banking system and is in contrast to the branch banking which was the traditional way of accessing to its customers. The aim of the research paper is to study the awareness of e-banking among the customers and their perception towards e-banking with regard to usage and its benefits. The author has adopted multiple regression analysis to examine the perception of customer towards e-banking with regard to usage and its benefits. With the previous work of factor analysis Principal Component method done, the variables are grouped into five factors as Gratification, Confirmation, Security, Reliability and Information. Therefore, it is concluded that there is a sharper estimation on the influence of security factors and the information factors on the perception of customers towards e-banking with special reference to SBI, Madras University branch.

Keywords: Confirmation, Electronic Payment Transactions, Financial Institution, Gratification, Information, Reliability, Security

1. Introduction

The world is changing at a staggering rate and technology is considered to be the key driver for these changes around. An analysis of technology and its use shows that it has permeated in almost every aspect of our daily life. Many activities are handled electronically due to the acceptance of information technology in domestic as well as corporate society. Slowly but steadily, the Indian customers are moving towards the use of Electronic banking.

Electronic banking is a generic term for the delivery of banking services and products through the electronic channels such as the telephone, cell phone etc. e-Banking facilitates an effective payment and accounting system

to enhance the speed of delivery of banking services conveniently. Several initiatives have been taken by the government of India as well as the RBI (Reserve Bank of India) to facilitate the development of e-Banking. The Government of India enacted the IT Act, 2000; it provides legal recognition to electronic transactions and other means of electronic commerce. The RBI has been preparing to upgrade itself as a regulator to monitor the financial transaction of the technologically dominated financial system. Central Bank of India also issues guidelines on the digitalizing banking services, insisting risks and controls in computer and telecommunication systems to all banks and advice them to evaluate the inherent risks in the systems for adequate control over mechanisms to address these risks.

*Author for correspondence

2. Electronic Banking

Electronic banking is a term which helps the customers to approach the bank through a digital screen with the help of internet. It reduces the work of the customers to go to the bank in personal. Gurusamy (2014) it generally termed as the work carried out through electronic means, and thus it takes the form of e-Banking. This kind of operation includes electronically operated devices such as computers, ATMs, etc. In addition, Internet, Telephone, handset Mobile and Tab are other means of e-Banking.

The concept of electronic banking has been defined in many ways. Daniel (1999) defines electronic banking as the delivery of banks information and services by banks to customers via different delivery platforms that can be used with different terminal devices such as personal computer and a mobile phone with browser or desktop software, telephone or digital television.

3. Scope of the Study

The research is based on the customers' perception towards e-Banking services. The research discusses the perception of the customers regarding the e-Banking services provided by SBI of Madras University branch and the qualities of e-Banking services in the area of reliability, awareness, responsibility, information, security etc. Also the research analyses the problems faced by the customers in using e-Banking services. The researcher has taken ATM/debit card, telephone banking, mobile banking, internet banking as e-Banking services which the customers use various mode of services. A detailed analysis of the awareness of e-Banking among the customers and the perception, time management, cost reduction while using e-Banking services are considered to be analyzed in the present study.

4. Objectives of the Study

The study was intended to observe the extent of customers' perception towards e-Banking services of SBI. In particular the awareness is tested to be the most of the customers' problems in accessing e-Banking services. Hence the following main objectives of the study are

formulated with significance to carry out this research in a systematic manner;

- To study the awareness of Electronic banking among the customers, and
- To examine the customer's perception towards Electronic Banking with regard to usage and benefits.

5. Methodology

The study is descriptive in nature. The primary data required for the study were collected by distributing questionnaires to 201 customers. The simple random sampling has been adopted taking into account the availability and accessibility of the customers for the data collection. The data collection is based on the convenience of the researcher being distributing the questionnaires in person to the found respondents directly and collected the necessary information required for the study taking into account the objectives of the study. The secondary data were collected from the books, journals and other websites.

6. Statistical Tools Employed for this Study

The statistical tools employed by the researcher for this study are frequency analysis and multiple regression analysis using SPSS version 21.0.

7. Limitations of the Study

The study is restricted to the customers' perception. Therefore it does not have any personal opinion on e-Banking services from the bankers' perspective. Therefore the results of the study can be confined only with the SBI of Madras University branch. The duration of the study is limited to 6 months. And the study can also vary according to the perception of the individuals.

8. Review of Literature

Mohana Shanmugam, *et. al.*, (2015) resolved the customers' security concerns about electronic banking;

some banks have introduced technologies such as card readers to avoid online fraud. Miran Ismail Hussein and Rasha Abd El Aziz, (2013) has investigated how users perceive e-banking quality dimensions in terms of their importance; how do decision makers in bank perceive and provide e-banking quality dimensions; whether each quality dimension directly affects user satisfaction of the service. Fozia (2013) propose that demographic factors impact significantly electronic banking behavior, specifically, occupation and age. The author suggests that an understanding about the customer's perception regarding the e-Banking services of public and private banks it will help to the banker to understand the customers need in better way. Ranjit Kumar Sahoo and Sukanta Chandra Swain (2012) have attempted to find out whether e-Banking is performing as per the perception amongst the customers and the employees and is there any gap between the perceived value and the performance. It is recommended that the instructions to use e-Banking services should be made available. Banks should take initiation to aware the masses to trust the bank services and let them make sure that these services are already tested and best. Loay Salhieh, *et. al.*, (2011) stated that customers are positive about embracing new banking channels. But it seems that technological aspects and IT employee skills are paramount concerns. Vijay

(2011) evaluates that banker and e-Banking service designers should think over these dimensions and make possible changes in the e-Banking services according to the customers' expectations and need of the time. It will help to enhance service quality of e-Banking and increase the level of customers' satisfaction in e-Banking.

9. Data Analysis and Interpretation

This chapter deals with the data interpretation and analysis. The various analyses done are explained below.

10. Percentage Analysis

Percentage analysis is the method to represent raw streams of data as a percentage (a part in 100 percent) for better understanding of collected data.

The formula for computing percentage analysis: $P = \frac{RB}{100}$

Explanation:

P = Percentage (portion, part, or share), always without a percent sign.

R = Rate or percent, usually with a percent sign.

B = Base, the original amount.

Table 1. Demographic profile of the respondents

Demographic Profile		No. of Respondents	Percentage	Total
Gender	Male	100	49.8	201 (100.0)
	Female	101	50.2	
Marital Status	Married	52	25.9	201 (100.0)
	Unmarried	149	75.1	
Age	18-25	119	59.2	201 (100.0)
	26-30	71	35.3	
	31-35	9	4.5	
	above 36	2	1.0	
Monthly Family Income	Up to Rs. 10000	31	15.4	201 (100.0)
	Rs.10001 - 20000	58	28.9	
	Rs.20001 – Rs.30000	69	35.3	
	More Than Rs. 30,000	43	21.4	

Educational Qualifications	Higher Secondary	4	2.0	201 (100.0)
	Under Graduate	11	5.5	
	Post Graduate	127	63.2	
	Professional Course	53	26.4	
Occupations	Government Employee	21	10.4	201 (100.0)
	Private Employee	58	28.9	
	Professional	36	17.9	
	Students	78	38.8	
	Others	8	4.0	

Table 1 it is found that the majority of the respondents belong to female (50.2%), majority of the respondents are unmarried (75.1%), the most of the respondents are belonging to the age group of 18-25. (59%) that pluralities of the respondents are in the income group of rupees 20001 to 30000. (34.3%), maximum respondents are qualified as post graduates. (63.2%), and the greater part of the respondents are students (38.8%).

11. Awareness-wise Distribution

The respondents were grouped into two categories based on their awareness about the services of Electronic banking. The details of the two groups are yes and no.

Table 2. Awareness-wise distribution

Awareness	No. of Respondents	Percentage
Yes	201	100
No	0	0
Total	201	100

Table 2, it shows that 100 percent of the respondents prefer yes. It is inferred that majority of the respondents from the sample are aware of the e-Banking services in SBI.

12. Multiple Regression Analysis

Multiple regression analysis has been employed to establish the perception of e-Banking felt by the customers. Multiple linear regression analysis is used to predict the variance between the dependent variable and independent variables. The multiple linear regression analysis explores the inter-relationship among variables and the contribution of each predictor to explain the variance in the dependent variable

12.1 Influence of Security Factors on the Perception of Customers on e-Banking

The factor analysis Principal Component method identified five factors of perception of customers namely Gratification, Confirmation, Security, Reliability and Information. In this juncture, reliability factor is consider as dependent variable and confirmation, information and security factors are considered as an independent variable.

The influence of inducted variable over the independent factor is estimated through Multiple Regression analyses.

12.2 Influence of Security Factors on the Perception of Customers on e-Banking

The factor analysis Principal Component method identified five factors of perception of customers namely Gratification, Confirmation, Security, Reliability and Information. In this juncture, security factor is consider as dependent variable and confirmation, information and reliability factors are considered as an independent variable.

The influence of inducted variable over the independent factor is estimated through Multiple Regression analyses (Table 5).

Table 3. Model summary, ANOVA of reliability factors on perception of e-Banking felt by the customers

Model Summary			ANOVA					
R		Adjusted R2	Model	Sum of Squares	Df	Mean Square	F	Sig
.432	.186	.174	Regression	12.018	3	4.006	15.039	.000
			Residual	52.475	197	266		
			Total	64.493	200			

(Source: computed data)

Table 3, it is found that R= .432, R Square= .186, and adjusted R Square= .174. This shows that the independent variables such as gratification, confirmation, security, and information create 17 percent variance over the dependent variable such as reliability factor. This leads to ANOVA for the model fit. Further it is found that F= 15.039, P= .000 are statistically significant at 5 percent level. This shows that the independent variables of the perception factor significantly contribute the perception of the customers towards e-banking. This leads to the sharper estimation on the influence of security factors on the perception of customers towards e-banking with special reference to SBI, Madras University branch in Table 3.

Table 4. Co-efficient of variables of reliability factors on the perception on e-banking felt by customers

Model	Un-standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.034	.213		4.845	.000
Security	-.002	.066	-.002	-.026	.980
Information	.350	.071	.334	4.914	.000
Gratification	.171	.065	.187	2.648	.009

(Source: computed data)

Table 4, it is found that the Information factor (t=4.914, B=0.334, P=0.000) and the gratification factor (t= 2.648, B=.187, P=.009) is statistically significant at 5 percent level. This indicates the reliability factor create significant influence over two of the perception factors namely 'information' and "gratification" except security factor (t= -.026, B= -.002, P=0.980). Further, it can be concluded that reliability about the usage by providing appropriate information to the customers play a vital role in creating maximum usage of e-banking.

Table 5. Model summary, ANOVA of security factors on perception of e-Banking felt by the customers

Model Summary			ANOVA					
R	R2	Adjusted R2	Model	Sum of Squares	Df	Mean Square	F	Sig
.198	.039	.024	Regression	2.646	3	.882	2.656	.050
			Residual	65.097	196	.332		
			Total	67.743	199			

(Source: computed data)

Table 5, it is found that R= .198, R Square= .039, and adjusted R Square= .024. This shows that the independent variables such as gratification, confirmation, reliability, and information create only 2 percent variance over the dependent variable of security factor. This leads to ANOVA for the model fit. Further it is found that F= 2.656, P= .050 are statistically significant at 5 percent level. This shows that the independent variables of the security factor significantly contribute the perception of the customers towards e-banking.

Table 6. Co-efficient of variables of security factors on the perception on e-Banking felt by customers

Model	Un-standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.881	.222		8.489	.000
Reliability	.037	.081	.036	.454	.650
Information	.161	.083	.150	1.945	.053
Confirmation	.063	.070	.067	.895	.372

(Source: computed data)

Table 6, it is found that the Information factor (t=1.944, B=0.150, P=0.053) is statistically significant at 5 percent level of significance. On the other hand Reliability factor (t= .454, B= .036, P= .650), Confirmation factor (t= .895, B= .067, P= .372) are statistically insignificant at 5 percent level. This indicates the security factor create insignificant influence over the other two predictors of the independent variables of the perception of e-banking felt by the customers.

12.3 Influence of Information Factors on the Perception of Customers on e-Banking

The factor analysis Principal Component method identified five factors of perception of customers namely Gratification, Confirmation, Security, Reliability and Information. In this juncture, information factor is consider as dependent variable and confirmation, security and reliability factors are considered as an independent variable.

The influence of inducted variable over the independent factor is estimated through Multiple Regression analyses (Table 7).

13. Findings

- It is found that among 201 respondents, 50.2 percent of the respondents are male followed by 49.8 percent are female. Majority of the respondents are male and also it is found that majority of the respondents are unmarried,
- Out of the sample, the majority (59 percent) of the respondents' shows initiatives and interest are under the age group of 18 – 25,
- It is found that 34.3 percent of the respondents who earns above 20001 to 30000 use e-Banking services frequently,

Table 7. Model summary, ANOVA of information factors on perception of e-Banking felt by the customers

Model Summary			ANOVA					
R	R2	Adjusted R2	Model	Sum of Squares	Df	Mean Square	F	Sig
.414	.171	.163	Regression	10.043	2	5.022	20.387	.000
			Residual	48.524	197	.246		
			Total	58.568	199			

(Source: computed data)

Table 7, it is found that R= .414, R Square= .171, and adjusted R Square= .163. This shows that the independent variables such as gratification, confirmation, reliability, and security create 16 percent variance over the dependent variable of information factor. This leads to ANOVA for the model fit. Further it is found that F= 20.387, P= .000 are statistically significant at 5 percent level. This shows that the independent variables significantly contribute the dependent variables of the perception of the customers towards e-banking.

Table 8. Coefficient of variables of information factors on the perception on e-Banking felt by customers

Model	Un-standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.309	.167		7.859	.000
Reliability	.331	.066	.347	5.048	.000
Confirmation	.121	.060	.139	2.023	.044

(Source: computed data)

Table 8, it is found that the Reliability factor ($t=5.048$, $B=.347$, $P=0.000$) and Confirmation factor ($t= 2.023$, $B= .139$, $P= .044$) is statistically significant at 5 percent level of significance. This indicates the information factor create significant influence over the other two predictors of the independent variables of the perception of e-banking felt by the customers.

- It is noted that among the total respondents, 63.2 percent of the respondents are qualified as post graduates under the study,
- It is evident from the study that the majority of 38.8 percent of the respondents of e-Banking services with reference to SBI of Madras University Branch are students,
- All respondents of the sample are aware about e-Banking services, and it is found that 82.1 percent think e-Banking services in SBI are useful,
- There is no significant association between gender and the satisfaction of e-Banking services offered by the SBI and branch facility in terms of services offered by SBI, and
- There is a significant association between the age, educational level and the satisfaction of the customers in e-Banking services offered by SBI.

14. Conclusion

Despite, widespread use of electronic banking services in India, there are customers facing various difficulties with regard to safe and secure of financial transaction. The study finds that the customers of SBI taken for this study are fully aware of e-Banking services. Most customers however still patronize the bank branches and find interaction with human tellers as very important as they got distracted with the problems such as inadequate knowledge about the usage of e-Banking services, lack of interest, poor net work, pass word forgotten, card

misplace and lack of confidence. Therefore, it concludes that customers enjoying electronic banking services are still not satisfied with the information and security of the services. Further a special emphasis must be given for the security which would promote customers in using e-Banking services to the largest extent.

15. Reference

1. Daniel E. (1999). Provision of Electronic Banking in the UK and the Republic of Ireland. *International Journal of Bank Marketing*, 17 (2), 72–83.
2. Fozia (2013). A Comparative study of customer perception toward e-Banking services provided by selected private and public sector bank in India. *International Journal of Scientific and Research Publications*, 3(9). 1 ISSN 2250-3153.
3. Gurusamy, S. (2014). *Banking Theory Law and Practice*. 2nd Ed. EG-EULC, McGraw-hill, p. 347. ISBN: 978-81-8209-197-9. <https://www.amazon.in/Banking-Theory-Law-Practice-3e/dp/8182091977>.
4. Hussein M.I. & Aziz Ra El (2013). Investigating e-Banking service quality in one of Egypt's banks: A stakeholder analysis. *The TQM Journal*, 25(5), 557 – 576, ISSN: 1754-2731.
5. Kumbhar V.M, (2011). Factors affecting the customer satisfaction in e-Banking: Some evidences form Indian Banks management research and practice. *Management Research and Practice*, 3(4), 1–14.
6. Sahoo R.K. & Swain S.C. (2012). Study of perceived value and performance of e-Banking in India with a special reference to Punjab National Bank. *Indus Journal of Management and Social Sciences*, 5(1), 64–75.

7. Salhieh L., *et. al.* (2011). The assessment of e-Banking readiness in Jordan. *International Journal of Islamic and Middle Eastern Finance and Management*, 4(4), 325–342.
8. Shanmugam M., *et. al.* (2015). Understanding customer perceptions of internet banking: the case of the UK. *Journal of Enterprise Information Management*, 28(5), 622 – 636. ISSN: 1741- 0398.