Research Article

CYBER BANKING IN INDIA

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ARTICLE INFO	ABSTRACT
	In this paper cyber banking information system affected factors are discussed. The data was collected through a structural questionnaire administered on the cyber banking users of both public and private sector banks. The results revealed that out of five factors, the first three factors, i.e., EFF&TW, ITU, USC, consisting of 17 variables, were highly significant at 99% level, which contribute maximum to the overall satisfaction of the customers. The results also reveal that the difference between the overall satisfaction level of the customers of private and public sector banks is less significant as per the regression value.

INTRODUCTION

Cyber Banking is the convenient electronic banking service provided by the banks through which one can manage finances and operates accounts anytime and anywhere. If one has to point out one major reason for facilitating armchair banking, it is the use of internet. Cyber banking business is critical for the success of a bank. On the other hand, it also enhances the functionality to meet the growing needs of consumers who prefer online banking to branch locations. Online banking has a major role to play in capital market transactions too. People are increasingly using net banking for a wide variety of purposes, as it is very convenient (akuffo, 2011). Improved customer service delivery, lower transaction costs and improved cross-selling opportunities are some of the benefits of cyber banking.

Cyber banking delivers your banking needs to your doorstep. Such as:

- Information and data related to account and transactions;
- Facility to give instructions, requests, and applications to the bank; and
- Provision to transfer funds as per the needs of the account holder.

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There is a set of regulations laid down by the Reserve Bank of India that guides banks on the security aspects of internet banking. There are many threats that deter a person from using cyber banking. These threats are also being faced by the banking channels of the developed countries. According to Williamson (2006), phishing farming, and other types of attacks have become well-known and are widely used as a means for fraudsters to obtain information from customers logging onto their online banking service has become a crucial concern for banks.

According to a McKinsey in 2011, only 7% of the account holders in India are using Internet for their banking needs. This low number motivated us to conduct a study on the customers of Indian banks to understand their perception about cyber banking. Hence, it is important to explore the reasons which motivate the customers and the factors which act as an obstacle in using cyber banking. Cyber banking system, if used properly, has the potential to increase customer satisfaction as well as the performance of the banks (Al-Somali *et al.*, 2009; and Alsajjan and Dennis, both public and private sector banks in India regarding cyber banking usage. This study brings out a cross-sectional analysis of cyber banking usage in the Indian public and private sector banks. The rationale behind this study is to analyze the overall satisfaction level of the customers about the cyber banking in India. Here, the intention is to find out the factors that affect the user acceptance of cyber banking information system by testing and individual's opinion regarding cyber banking acceptance and use.

Literature review

There are many factors which persuade customers to use cyber banking. The large array of services like low cost, anywhere and anytime accessibility etc are the main benefits available to the customers. But there are factors which discourage customers from using cyber banking like reliability of the system, privacy, security and trust worthiness. Mukhehrjee and Nath (2003) observe that shared value is most critical to developing trust as well as relationship commitment in the case of cyber banking. Communication has a moderate influence on trust, while opportunistic behaviour has a significant negative effect. They also found that the future commitment of the customers to online banking depends on perceived trust.

Hosein (2010) also suggests that consumers may find it difficult to use internet banking services, leading to a decrease in their intension to adopt the same. In response, banks need to standardize their internet banking services to make the services as simple as possible for consumers to use. At the same time, they need to develop more effective websites that offer clear and precise instructions, so as to provide adequate support for users of their services. Pikkarainen *et al*. (2004) concludes, on the basis of a focus group interview with banking professionals, TAM literature and e-banking studies, that perceived usefulness and information on the banking website were the main factors influencing online-banking acceptance. Akuffo (2011) concludes by highlighting the fact that Internet banking is still in its nascent stage and that most of the banks do not offer full-fledged Internet banking, though they have plans to do so. An analysis by Gbadeyan and Akinyosoye (2011) reveals that the quality of e-banking services offered by banks has significant influence on their customers. Their paper recommends that various measures should be put in place to ensure more security such as installation of encrypted software, verification system for customers' identification cards, frequent change of password, examining test questions and using mixed password such as the use of alphanumeric among others. They also concluded that e-banking has become an important phenomenon in the banking industry and it will continue as more progress and innovations are made in information technology. Kumbhar(2011) recommends that the banker and cyber banking designers and policy makers should concentrate their efforts on enhancing of cost-effectiveness, responsiveness, perceived value, brand perception, easy-to-use features, etc. which facilitate convenience in using e-banking services.

Various studies have been conducted in and outside India to understand the factors influencing the acceptance of cyber banking and the challenges which banks are facing to make the entire banking system cyber-based. Because of low awareness level, security issues, inadequate support system, and system quality, cyber banking has not yet achieved the set target by the banks.

Objectives

- To study the factors which influence the bank customers' decision about use of cyber banking system.
- To understand the factors which need to be improved to encourage more use of cyber banking in India; and
- To compare the overall satisfaction levels of cyber banking customers of public sector banks and private sector banks.

MATERIALS AND METHODS

This study is based on both Exploratory Factor Analysis (EFA) and conclusive research. In exploratory factor analysis, we explored the factors by doing rotations since un-rotated component matrix fails to extract the factors in absolute form, and the regression analysis was applied to find the casual relationship between dependent and independent variables.

The primary data were collected, with the help of a structured questionnaire. The questionnaire was designed to know the perception and satisfaction levels with regard to cyber banking among the customers of the Indian banks, and was intended to explore the various constructs based on the literature review along with a comparison of the overall satisfaction level of the overall satisfaction levels of customers of private and public sector banks. A sample of 250 customers was selected across the country. The questionnaire was sent to all types of customers having accounts with the banks. The questionnaire was based on Likert Scale (1 to 7), where 1 indicates 'strongly disagree' and 7 indicates strongly agree.

RESULTS AND ANALYSIS

Demographic Profile

The demographic profile of the customers is presented in Table 1. It is observed from Table 1 that out of the total sample of 250 respondents, 108 were customers from private sector banks and 142 from public sector banks. The sample also includes 64% of male respondents and 36% of female respondents. A majority (85%) of the respondents was in the age-group of 20 to 55 years and the remaining 15% were either below the age of 20 or above the age of 58. The respondents were also classified based on their income.

Table 1. Demographic Profile of the Selected Sample

Variable	Characteristics	No. of respondents	(%)
Type of Bank	Private Bank	108	43.2
	Public Bank	142	56.8
Monthly	<15,000	60	24
Income Rs.	15,000-30,000	95	38
	30,000-50,000	50	20
	50,000-75,000	20	8
	75,000-1,00,000	15	6
	>1,00,000	10	4
Age	<20 years	5	2
	20-55 years	213	85
	>55 years	32	13
Gender	Male	160	64
	Female	90	36
Education	High School Diploma	22	8.8
	Bachelor	118	47.2
	Postgraduate	110	44
Occupation	Student	20	8
	Government Employee	38	15.2
	Private sector	87	34.8
	Businessmen	82	32.8
	Self-employed	23	9.2

The respondents were more from the income category of 12,000 to 40,000. The income of 58% of the respondents was below Rs. 30,000, and 21% of the respondents were from the income group of Rs.30,000 and Rs. 50,000. The remaining 21% were from the high income group, i.e. Rs. 50,000 and above. Most of the respondents were graduates or postgraduates.

Only 8.9% respondents were less qualified. The sample comprises respondents from different occupations. 8.9% of the respondents were students, while 34% of them were holding private sector jobs. The remaining respondents were government employees, businessmen or self-employed.

Factor Analysis

Factor analysis is a statistical method used to describe the variability among the observed correlated variable in terms of a potentially lower number unobserved variable called factors. 21 Independent variables were considered for the analysis and the commonalities extraction value for all the factors was found as above 0.5, which justifies the qualification of all the variables for extracting the factors. Since unroated component matrix failed to extract the factors in absolute form, rotation method has been considered. To get the results for extracting factors, rotations were iterated for the three times.

The extracted factors are named as Effectiveness and Trustworthy (EFF & TW), intend to Use (ITU), Usage Constraints (USC), Easy to Use (ETU) and accessibility (ACC). This factor includes questions related to effectiveness and trustworthiness of users on cyber banking. The questions were regarding the change in the productivity and the level of accomplishment of tasks after using cyber banking. Also, the first factor includes the variables generated from the questions on privacy of the system and trust on the users of cyber banking system. The second factor, ITU, includes questions judging the intension of customers to use cyber banking in the present as well as in the future. The third factor, USC, which includes the questions on constraints for using cyber banking by the customers, discusses the constraints behind the non-use of cyber banking facility like lack of built-in facility, less training support, etc. the questions related to the fourth factor, ETU, are based on the features of cyber banking like the system is easy to handle and is user-friendly. And the questions relating to the last factor, ACC, are based on the accessibility of the system.

OLS regression, we found R^2 to be 0. 325. Which suggests that independent variables explain the variations in dependent variable by 32.5%, i.e. OAS can be explained by the independent variables by 32.5%. Durbin-Watson is 1.789 which signifies that there is no autocorrelation among the variables (Table 2). F-value is 19.345 and is significant. OLS regression results reveal that out of the five factors, the first three factors, (EFF & TW), ITU and USC) consisting of 17 variables are highly significant which contribute maximum to the OAS of a customer. Though all the five factors have positive relationship with OAS, EFF&TW, ITU and USC are the most significant factors with 99% significance level. This indicates that a more effective and security-oriented system leads to more satisfaction level among the customers of the bank. The system is considered trustworthy by the users, and this is one of the factors which affect the use of cyber banking in India. ITU, which is the second most factor associated with OAS level, states that people intend to contribute the use of cyber banking system in the future. The third factor, USC, is also a highly significant factor in influencing people to use cyber banking. This factor explains that most of the people would use cyber banking system, provided they have system manuals for reference and a built-in help facility for assistance. The factor also specifies that people will be motivated to use cyber

banking if they are supported by the banking system. The fourth factor, ETU, also influences the users to a large extent. The significant value of ETU is 0.0581 which reflects that it is significant at 90% level of significance. This suggests that people are influenced if the system is easy to use. The last factor, ACC, is less significant in the OAS level of the customers. One of the reasons for less significance of ACC is the unrestricted and easy accessibility of the cyber banking system in today's time.

Model	Unstandardised Coefficients		Standardized Coefficients	t-value	Sig.
	B	Std.error	Beta		
(Constant)	5.589	0.111		50.195	0.000
EFF&TW	0.678	0.071	0.476	9.032	0.000
ITU	0.335	0.0745	0.239	4.543	0.000
USC	0.236	0.0745	0.158	3.02	0.003
ETU	0.143	0.0745	0.123	1.897	0.061
ACC	0.0612	0.0745	0.0423	0.795	0.412
PUB/PRI	-0.029	0.153	-0.009	-0.182	0.85
Model Summary					
R^2	0.325	Durbin Watson	1.789	F-Value	19.345

Conclusion

The study attempts to observe the factors which lead to the overall satisfaction of cyber banking users. The exploratory factor analysis of the observed variables produced a factor loading of above 0.5 for all the variables; which means that all the variables are significant and explain the OAS level of the cyber banking users. However, the OLS regression helps to recognize the factors which encourage customers to go for cyber banking, and further banks can enlighten the non-users about the usefulness of cyber banking, and further banks can enlighten the non-users about the usefulness of cyber banking. Various factors like effectiveness and usefulness of the system, data security and privacy, intention to use, and easy to use are found to motivate the users to use cyber banking system. Also, the regression results reveal the problems faced by the users which can help banks to improve on those areas to add more number of customers to the cyber banking users group. The main concerns for the customers are the constraints like lack of system manuals and built-in-facilities and less training programmes, the availability of which could have made them more efficient in using the system.

REFERENCES

Al-Somali, S. A. *et al.* 2009. "An Investigation into the Acceptance of online Banking in Saudi Arabia", *Technovation*, Vol. 29, no. 2, pp. 130-141.

Geetha, K. T. and Malarvizhi, V. 2011. "Acceptance of e-Banking *among Customers: An Empirical Investigation in India", Journal of Management and Science*, Vol. 2, No.1, pp.1-19.

Hosein, N. Z. 2010. "Internet Banking: Understanding Consumer Adoption rates among Community Banks", LV10038.

Kumbhar Vijay, 2011. "Structural Equation modeling of eBank Qual Scale: A Study of e-Banking in India", International *Journal of Business Economics and Management Research*, Vol. 8, No. 3, pp.18-32.

Mukherjee, A. and Nath, P. 2003. "A Model of Trust in Online Relationship Banking", *International Journal of Bank Marketing,* Vol.21, No.1, pp.5-15.

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