



Mobile Banking: A Study On Adoption & Challenges In Southern Rajasthan, India

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Abstract:

Information technology has basically been used under two different avenues in banking. One is communication and connectivity and other is business process. Today, banks have welcomed wireless and mobile technology into their boardroom to offer their customers the freedom to pay bills, planning payments while stuck in traffic jams, to receive updates on the various marketing efforts while present at a party to provide more personal and intimate relationships. This paper examines consumer adoption of a new electronic payment service as mobile banking and the factors influencing the adoption of mobile banking in South Rajasthan. A sample size of 100 account holders with different banks was taken for the study and random sampling method was used. Both primary & secondary data's were used for the study. Primary objective of this study is to-

- *To study the adoption of Mobile banking services by Customers in Southern Rajasthan.*
- *To identify factors influencing the Adoption and Usage of Mobile banking in South Rajasthan.*

The paper is based on Exploratory Research. This research is both quantitative and qualitative. This research is based on the data collected through "Questionnaire" with Mobile banking User and Non-user. Total period for this study was forty days. Results indicate that consumers get disheartened by the complicated functions while accessing the mobile banking services which lead them to the dissatisfaction level as no proper guidance is to be provided to them. The fact is that the factor risk and security are the most considerable significant factors for banking service adoption, and particularly in relation to 'new' electronic environment. The result indicate that consumers are serious about the risk of conducting banking via a wireless channel, measured in terms of overall security and trustworthiness of the services offered. However, because of various problems in m-banking system this is not widely accepted by South Rajasthan bank customers.

1. Introduction

Mobile banking is a revolution that is driven by the world's one of the fastest growing sectors mobile communication technology. Like in any emerging technology, there exist barriers to the adoption of mobile banking services. This study explores the issues in mobile banking perceived critical for adoption by both mobile banking users as well as non-users. The study identified certain issues pertaining to banks, mobile handsets and telecom operator's viz. mobile handset operability, security/privacy, standardization of services, customization, Downloading & installing application software and Telecom services quality. For this a descriptive design was adopted to empirically explore the selected issues. Study suggests that from consumers' perspective mobile handset operability, security/privacy and standardization of services are the critical issues. Although the research has its limitations, the implications of the results provide practical recommendations to the all concerned parties.

2. Mobile Banking In India

Mobile banking has not widely accepted but there is significant growth found in recent years after spread of mobile network. Since 1995 in India, there is found tremendous growth in mobile users in India. In past two years, mobile banking users have increased three times if we compare the use of either debit card or credit card. Now, 32 banks had been granted permission to operate Mobile Banking in India till June 30, 2009, of which 6 belonged to the State Bank Group, 12 to nationalized banks and 13 to private / foreign banks. The RBI has adopted Bank Led Model in which mobile phone banking is promoted through business correspondents of banks. Recently, Indian banks are offering followings facilities through mobile banking: 1) Check account balance 2) Get automatic updates on bill payments 3) Get automatic updates scheduled payments 4) Mini account statement 5) SMS alert about deposit and withdrawal 6) Electronic fund transfer 7) Bill Payment, Donations, Subscriptions etc. 8) Information about new schemes, changes in charges and interest rates 9) Stop payment order and cheque book request 10) ATM and branch locating 11) Mobile Top Up, Recharge of Other DTHs, 12) Merchant payment, SBI life insurance premium 13) De-mat Enquiry Service 14) Real-time stock quotes.

3. Adoption Of Mobile Banking In India

In India, the situation of the banks is quite different from the banks overseas particularly in Developed markets. Indian banks are not facing huge write downs or losses and are

still quite Well capitalized. The use of technology in India has undergone rapid Transformation. The last two decades have witnessed a sea change in the nature of services Offered by not only banks but also the financial sector and even the Government - all of which have had a positive impact on the customers of these organizations and the general Public at large. Financial Services are generally complex and need a lot of trust for the consumer to use technology. Banks have changed from paper-based banking solutions provider to the latest of the technologies like online-banking, mobile-banking, etc. It is surprising to know as to why most of the Indian customers have not welcomed this up gradation. Customers across the world, even technologically optimists, have refrained from using technology aided solutions. There are many reasons why technology has not been able to ride the acceptance wave and cross the hurdle and become an acceptable feature in banking. As today's banking has redefined itself as customer centric, it becomes more important that the customer is happy with the services being provided. Unfortunately, the acceptance and adoption rates are very low even in the case of educated customers. The paper looks at various factors which explain why consumers are not using mobile banking and other technologies in banking. It would also try to suggest why people are not currently using mobile banking and try to suggest how to overcome this problem and increase the acceptance levels.

4.Review Of Literature

This paper aims at filling that gap by shedding light on the general usage of mobile services and in particular on influence of demographic characteristics on usage. The survey was conducted among Southern Rajasthan bank customers. The paradigm shift, from traditional branch banking to electronic banking; the newly emerged channels; rapidly increasing penetration rates of mobile phones are among other the motivators of this study. The approach employed is practical and provides insights drawn from the quantitative empirical survey. The newly emerged mobile banking services represent an innovation where both intangible service and an innovative medium of service delivery employing high technology are present. Thus, concepts of innovation and diffusion of innovation are even more intricate as technology and service aspects have an effect on the characteristics of mobile banking services [5]. Traditionally research relating to the customer adoption of innovation has tended to concentrate on socio-demographic and psychographic attributes of potential adopters. Even though these kind of personal characteristics of a consumer have found to be predictors of adoption [1], an increasing

body of research has demonstrated that it is the perceived attributes of innovation itself rather than the personal characteristics that are the stronger predictors of the adoption decision [6]. In the search to understand consumers' adoption of innovation, and where research has focused on the consumer perspective, Rogers' diffusion model, which originally dates back to 1962, has often been employed [8]. Within financial services innovation research [7], [9, 10], have applied Rogers' model to Internet banking.

5.Scope For M-Banking In India

Indian telecommunication service scenario indicates that cellular or mobile phone service was growing tremendously in last five years. As TRAI's report on telecommunication industry in India, The wire line phone connections were declining in the last few years and mobile phone connections were increased very fast. At present, 16 cellular service providers providing cellular service in Indian and there were 621.28 million phone connections in India out of these 584.32 million mobile phone connections. Mobile phone service was not only spread in urban areas but also in rural areas in India. The rural mobile connections have reached the 190.88 million mark as against 111.63 million in the previous year and now 32.67% of total wireless subscribers are now in rural areas and the rural teledensity was 24.29%. It is great opportunity to the bankers to facilitate banking service to „unbanked“ through mobile banking system in India. Providing mobile banking services to the unbanked is not only social responsibility of the bankers but also it is a golden opportunity to the business expansion.

6.Objectives Of The Study

This study plans to study the acceptance of mobile banking among the consumers. The primary objective of this study is to:

- To study the adoption of Mobile banking services by customers in Southern Rajasthan.
- To identify factors influencing the adoption and usage of Mobile banking in Southern Rajasthan, India.

The personal characteristics of mobile banking users were found to be important determinants of their adoption decisions. This finding provides the banking services industry with a better understanding of customer perceptions of mobile banking services

and helps them plan their marketing strategies and promotion approaches for mobile banking services in the future.

7. Research Methodology

This study is based on both primary and secondary data sources. Primary data was collected through interviews of the m-banking users and non-users. In spite of collecting statistical data regarding to m-banking service author was used qualitative method to study the issue m-banking concern to financial inclusion. However, some findings and conclusions made in this paper based on primary data collected to main research work carried by present author and other information was collected through secondary data sources.

For the present research, the paper is based on Exploratory Research. The major emphasis of Exploratory Research is on the discovery of ideas. Through Exploration, the researcher develops concepts more clearly, establish priorities, develop operational definitions, and improve the final research design. This research is both quantitative and qualitative. This research is based on the data collected through “Questionnaire” with Mobile banking User and Non-user. Total time taken for this study was 40 days.

7.1 Research Design

The data have been grouped into two main categories - primary and secondary data. The Secondary data have been compiled from newspaper, journals, magazines, and web links and also research papers. The primary data have been collected through an exploratory research –Questionnaire with user and non user of mobile banking basically Businessmen, servicemen, professionals, students etc.

7.2 Primary Data

The data for the research is extracted from a survey conducted in Southern Rajasthan in Rajasthan, India. A Total of 100 respondents participated in the research of Mobile banking. The demographic Profile of respondents in each research is shown in Table and chart. The data collected through this method was adequate enough to make projections in the research.

Characteristics	Frequency	Percentage
Male	70	70
Female	30	30
Age		
<20	5	5
20-29	35	35
30-39	40	40
40-49	20	20
>50		

Table 1: Demographic Profile of Respondents

Income (Monthly)		
<Rs. 5,000	48	48
>=Rs.15,000	35	35
Missing	17	17

Table 2

Respondents	Yes	No
100	67	33

Table 3: Have you heard about mobile banking?

Respondents	Yes	No
100	69	31

Table 4: Would you like to use mobile Banking services?

Respondents	Online banking	Mobile banking
100	22	78

Table 5: Which option would you prefer—Mobile or online Banking?

Respondents	Yes	No
100	61	39

Table 6: Are you comfortable using with M-Banking?

Respondents	Clarity of transactions	Confidentiality	Time saving
100	46	24	30

Table 6: Which benefit you rank no.1 Using Mobile banking?

7.3.Secondary Data

Articles have been sourced from magazines and journals dealing with current issues in mobile banking adoption. Internet & Text books related to Mobile Banking & Research Methodology have been a major secondary source for the extraction of the expert's opinion.

7.3.1.Factors That Affect Mobile Banking Adoption

In order to identify the top and least five perceived items in affecting the adoption intention of Mobile banking; the percentage score of the respondents was computed? Table provides the result.

Items	Items Percentage of Using Mobile Banking Population (%)
1. I would use Mobile banking if I could use it on a trial basis first to see what it can offer	83
2. I would use Mobile banking if I could see a trial Demo first?	79
3. I would use Mobile banking if I could test Mobile banking first?	77
4. I would use or be more likely to use Mobile banking if Mobile banking was compatible with My lifestyle?	57
5. I would use or be more likely to use Mobile banking if using my Mobile to conduct banking Transactions fit into my working style?	46
6. Mobile banking is a risky mode of banking to Use?	55
7. Mobile banking would allow me to manage my Finances more efficiently?	48
8. I would use Mobile banking if Mobile banking Increased my status?	73
9. Mobile banking would require a lot of mental Effort?	66
10. Mobile banking would be complex to use?	68

Table 7: Most and Least Perceived Factors in Mobile Banking Adoption

Compatibility	46%
Trial Ability	59%
Risk	64%
Complexity	49%
Adoption Intent	40%

Table 8: The Intention to Adopt the Mobile Banking and the factors to adopt the affect such intention

The findings in table indicate that adoption of Mobile Banking appears to be influenced by its Trialability and compatibility. Regarding the least perceived items that affect mobile banking adoption; these seem to be related to complexity, relative advantage and perceived risk of Mobile Banking are perceived as factors least affecting its adoption.

7.3.2.Factor 1: Access Problems

It is the most important factor, Accessing Problem statements such as `Possibility of error is higher than Internet Banking, Using key code list with mobile phone is complicated and Mobile phone is an unpractical device for banking emerges with good positive correlations. The great influence on the adopters not to have mobile banking services.

7.3.3.Factor 2: Dissatisfaction

Four variables load on to this factor. `Dissatisfaction' is the second significant factor, which accounts of the variations. The statements `Data transmission is very slow , Mobile banking services are risky and not secure, Mobile banking services are not enough versatile and Its use has been a disappointment by others signify that the non-adopters have seen the dissatisfaction among the users of mobile banking services.

7.3.4.Factor 3: Inability To Provide Knowledge

This is another crucial factor, which is reflection of variations. The statements of insufficient guidance is there for using mobile banking and its use is complicated which reflects that consumer behavior tends to be based on how a given problem is to be solved. In this research, the non-adopters of mobile banking are afraid of being the usage of new technology due to the complications in the systems and, moreover, no proper guidance is provided to them.

7.3.5.Result & Analysis

The banks providing mobile banking services to their customers, wishing to increase their customer share by removing all the above-discussed hurdles in the way of adoption of mobile banking services, may find relevant information from the findings. The factors appear to be defined by a mix of items that are reflections of problems in supplier side of the services and functionality of a mobile phone as delivery medium for banking services from the customer side.As the Internet banking is still in its growing stage, mobile

banking has emerged as the Next advance way of doing banking. Since the pace of technology advancement is not matching with the adoption rate, problems will arise if this widened gap is not going to be filled up with suitable measures. This negative effect of accelerating pace of development is manifested in services that are launched at an early stage of development process due to competitiveness and cost pressures. As a consequence, competence of service quality, does not reach an adequate level; consumers feel that service-providers are not responding to their needs. An example of that is the support for the item services are not enough versatile.

Emphasizing technology in service offering may result in ignoring certain fundamental prerequisites required for acceptance. Technology is an enabler a way to build up a new delivery channel, but communicating only technological features other elements of services such as service content. Technology-based electronic delivery medium does not constitute service offering and creates value alone, but service content has to function properly and the way of usage has to be known. Another main impediment seems to be functionality of a mobile phone as delivery medium for banking services. Mobile phone obviously is not designed for this type of services: For instance, key board is relatively small, which makes it more prone for correcting errors in keeping the figures.

Results indicate that consumers get disheartened by the complicated functions while accessing the mobile banking services which lead them to the dissatisfaction level as no proper guidance is to be provided to them. The fact is that the factor risk and security are the most considerable significant factors for banking service adoption, and particularly in relation to `new' electronic environment. The result of perceived risk on the adoption of mobile banking services appears to indicate that consumers are serious about the risk of conducting banking via a wireless channel, measured in terms of overall security and trustworthiness of the services offered. On the basis of the findings, it is suggested that service providers be aware of the problems of their customer base using mobile services. This kind of data has its value when designing new services and products or implementing market communications. In addition, information gained from experience with Internet banking and other modes of electronic banking cannot be straightforward implemented to mobile banking service customers. Given the increased competition and pressures to cut expenses, financial institutions have to be able to make informed decisions on resource allocation. Thus, research of this kind is of critical importance.

8. Conclusion

It is well recognized that mobile phones have immense potential of conducting financial transactions thus leading the financial growth with lot of convenience and much reduced cost. For inclusive growth, the benefits of mobile banking should reach to the common man at the remotest locations in the country. For this all stakeholders like Regulators, Government telecom service providers and mobile device manufactures need to make efforts so that penetration of mobile banking reaches from high-end to low-end users and from metros to the middle towns and rural areas. Inclusion of non-banking population in financial main stream will benefit all.

There is also need to generate awareness about the mobile banking so that more and more people use it for their benefit.

Indian banking scenario shows that there is need of m-banking for financial inclusion of poor and urban people. Since last five years mobile telephone service extended tremendously in India and it provides golden opportunities to extend m-banking service in India. However, because of various problems in m-banking system this is not widely accepted by South Rajasthan bank customers. Hence, there is need to improve m-banking service including network coverage and security in m-banking.

9. Suggestions

Several actions are necessary to accelerate the financial inclusion through m-banking while at the same time ensuring customer protection. Many of these actions fall in the policy and regulatory space.

- Building customer awareness and informing the public on use of M-banking modes is required.
- The RBI and commercial banks should plan a coordinated campaign in partnership with the trainers and professional to educate customers.
- Technology used for mobile banking must be secure and should ensure confidentiality, integrity, authenticity and non-reputability i.e. authentication by ID and m PIN.
- Customer should regularly check transaction history details and statements to make sure that there are no unauthorized transactions. Change password or PIN and avoid using easy-to-guess passwords.

- Mobile number portability programmed should implement immediately it will be led to use their mobile phone as m-banking device.
- Bank should develop m-banking software in regional language and should use most commonly used phrases, name and shortcuts in the software.
- Telecommunication department and cellular service providers should extend their network coverage in rural and remote areas to facilitate them communication and m-banking also. The government should provide conditional financial support to cellular service providers to extend such networks in rural areas.
- Bank should enhance their refund facilities concerns to if wrong transactions made by customers by mistake or if any.
- Bank can offer EMI or rental based mobile phone handsets to poorer peoples with tie up with mobile handset company. It may gives access to them via m-banking service.

10.Reference

1. Black, N. J. & Lockett, A. & Ennew, C. & Winklhofer, H. & McKechnie, S. 2002, Modeling consumer choice of distribution channels: an illustration from financial Services International Journal of Bank Marketing, Vol. 20 (4), pp. 161-173.
2. Bångens L and Söderberg, B. (2008), Mobile Banking –Financial Services for the Unbanked? ISBN:978-91-85991-01-3, http://www.spidercenter.org/files/mbanking_study.pdf accessed on 02/01/2011.
3. Black, N. J. & Lockett, A. & Winklhofer, H. & Ennew, C. 2001. The adoption of Internet Financial services: a qualitative study, International Journal of Retail and Distribution Management. Vol. 29 (8), pp. 390-398.
4. Cheney, Julia S. (2008), an Examination of Mobile Banking and Mobile Payments: Building Adoption as Experience Goods? Discussion paper, the Federal Reserve System, USA http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1266809 accessed on 25/12/2010.
5. Journal of the Association for Information Systems. Vol. 1 (5), pp. 1-42.
6. Howcroft, B. & Hamilton, R. & Hewer, P. 2002. Consumer attitude and the usage and Adoption of home-banking in the United Kingdom. International Journal of Bank Marketing. Vol. 20 (3), pp. 111-121.
7. Mohr, J. 2001. Marketing of high-technology products and innovations. Upper Saddle Polatoglu, V. N. & Ekin, S. 2001. An empirical investigation of the Turkish consumers'
8. Acceptance of Internet banking services. International Journal of Bank Marketing. Vol. 19(4), pp. 156-165.
9. Moore, G. C. & Benbasat, I. 1991. Development of an instrument to measure the Perceptions of adopting an information technology innovation. Information Systems Research. Vol. 2 (3), pp. 192-222.
10. Rogers, E. M. 1995. Diffusion of innovations. 4th edition. New York: Free Press.
11. Thornton, Jennifer and White, Lesley (2001), "Customer Orientations and Usage of Financial Distribution Channels," Journal of Services Marketing. Vol. 15 (3), 168-185.
12. Tan, M. & Teo, T. S. H. 2000. Factors influencing the adoption of Internet banking.