



A STUDY OF MOBILE BANKING IN INDIA

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Abstract: *Banking is the backbone of every industry and technology plays an important role in every industry. The role of technology is increasing very rapidly day by day, which is also promoting the banking industry. Banking is one of the largest financial institutions which regularly explore the opportunity of technology to provide better customer services. Over the years, banking has transcended from a traditional brick-and mortar model of customers queuing for services in the banks to modern day banking where banks can be reached at any point for their services. In today's business, technology has been the largest indicators of growth and competitiveness. The banking industry today is in the industry of its revolution. 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 positive and negative factors influencing the adoption of mobile banking in India.*

Keywords: *Mobile banking, Internet Banking, Technology Adoption, Mobile Payments.*

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INTRODUCTION

Mobile banking (m-banking) has emerged as a popular mode of banking in many developed and developing countries. In India, there are approximately 13 million mobile banking users and this figure is expected to grow rapidly with mobile transactions exceeding credit card transactions by the end of the decade. By some measures, there are more mobile phones in India than there are bank accounts. The combination of two factors—a large unbanked population and the ubiquity of

cell phones—is a catalyst for high mobile banking adoption. The mobile banking is defined as “the provision of banking services to customers on their mobile devices” specifically the operation of bank current and deposit or savings accounts. Mobile banking is an application of mobile computing which provides customers with the support needed to be able to bank anywhere, anytime using a mobile handheld device and a mobile service such as Short Message Service (SMS). Mobile banking facility removes the space and time limitations from banking activities such as checking account balances or transferring money from one account to another and time saving when we go to bank and doing some banking activities. Internet Banking helps the customer's anytime access to their banks. Customer's could check out their account details, get their bank statements, perform transactions like transferring money to other accounts and pay their bills sitting in the comfort of their homes and offices. But the biggest limitation of Internet banking is the requirement of a Personal Computer with an Internet connection, but definitely a big barrier if we consider most of the developing countries of Asia like India. Mobile banking addresses this fundamental limitation of Internet Banking, as it reduces the customer requirement to just a mobile phone. Mobile usage has seen an explosive growth in most of the Asian economies like India. The main purpose of Mobile Banking scores over Internet Banking is that it enables ‘Anywhere Anytime Banking is Available’. Customers don't need access to a computer terminal to access their bank accounts.

ORIGINATION OF M-BANKING IN INDIA

One of the most leading sectors in the world in the adoption of mobile technology is the banking industry including India. India was depicted to be the fastest growing mobile communications nation in Asia. Presently, banking industry of India has engaged the use of Information and Communication Technology (ICT) as a platform for effective and efficient



means of conducting financial transactions. But, banking sector of India found technology-oriented financial services in the year of 1987 through the Automated Teller Machines (ATMs). It was installed by HSBC bank, after 20 years completion of the execution process of cash dispensers for the first appearance in the world made by Barclays bank in UK, 1967. To strengthen the banking sector, financial reforms were initiated as a part of the economic reform started in India since 1991 onwards. Reforms were introduced in two phases, based on the report of Narsimahan committee in the year of 1991 and 1997. The second committee report, suggested whatever programme required by the banking sector reforms and make it in the India's banking system to become internationally competitive. This suggestion also helped to making fast development of technological-oriented financial services provided by the bankers to their customers in the past two decades. In recent days, finance-related services that are offered by employing mobile telecommunication technologies are generally referred to as m-banking technology-enabled financial information or services (Tiwari. R, et.al). So, the first m-banking and payment initiatives were announced during 1999. The first bank to provide mobile banking facilities in India was ICICI bank in the year 1999, followed by HDFC bank and IDBI bank. Self-service Technological advances have reshaped the size and nature of the financial industry, allowing it to extend beyond the traditional to modern concept of saving and borrowing through extension of the technological progression in the banking sector. The terms m-banking, m-finance, m-transfers and m-payments refer to the inter-services between customers and bankers. Now, m-banking development is a next generation of electronic banking which delivers financial services when the customers use their handheld devices to access their accounts and pay their bills from a bank which operates their account without having to physically visit their bank. In recent days, mobile banking is performed between bankers and its customers in the form of Short Message Service (SMS) or the Mobile Internet for the purpose of attaining higher levels of customer satisfaction and increased loyalty by providing 24X7 facilities and bankers will benefit further from reduced administrative expenses, lesser number of branches and lower handling charges with better service to the customers than branch banking. However, around the globe various IT initiatives developed by the bankers and use the mobile phone to provide financial services without access to traditional banks. Innovations in mobile technology the banks are conduct fast paced demands among the



various group of peoples or customers in the 21st Century through the high-quality of response and m-banking which is an integral part of m-commerce has become very popular among mobile users ever since its existence in 2007. The success of m-banking services depends upon the mobile network operator, m-banking technology vendor, bank and the customer. Further, m-banking has great deal of capabilities to offer value-added service, transformation of information and decision making services to the organization. M-banking is a type of m-commerce service since it allows consumers to perform the following technology-enabled financial information availed from the banks through the mobile device. Therefore, the Government of India and the Reserve Bank of India (RBI) encourage banks to provide banking facilities to those peoples through m-banking technology. In the year 2008, the RBI issued m-banking guidelines to the banks. This disqualifies mobile network operators from offering their own service.

LITERATURE REVIEW

The mobile banking is defined as “the provision of banking services to customers on their mobile devices” (Sharma, Prerna, Bamoriya & Preeti Singh, 2011). Mobile Banking refers to provision and usage of banking and financial services with the help of mobile telecommunication devices. Mobile banking is a system that helps the customers to conduct a number of financial transactions with the help of their mobile devices. Mobile commerce is a natural successor to electronic commerce. Where a mobile device is used to initiate, authorize and confirm an exchange of financial value in return for goods and services. Mobile devices may include mobile phones, PDAs, wireless tablets and any other device that connect to mobile telecommunication network and make it possible for payments to be made. The bank provides mobile banking services to their customers, wishing to increase their customer share by removing all the hurdles in the way of adoption of mobile banking services. The role of banking is very important in operating the business as well as industry functions. As the Internet banking is still in its growing stage, mobile banking has emerged as the next advance way of doing banking. The scope of offered services may include facilities to conduct bank transactions, to administer accounts and to access customized information (Tiwari & Buse, 2007). In the broader sense mobile banking as that type of execution of financial services in the course of which, within an electronic procedure the customer uses mobile communication techniques in conjunction with mobile devices



(Pousttchi & Schurig, 2004). Mobile phones have become an essential communication tool for almost every individual worldwide. In India, where mobile subscribers far exceed fixed line subscribers because of better mobile infrastructure in comparison to fixed line infrastructure has made mobile banking much more appealing in India. Technology plays an important role in banking sector. Mobile phone is a common technology device that became part of every individual in the information era. Mobile Banking is an emerging alternate channel for providing banking services. India is the second largest telecom market in the world, which is having high potential for expanding mobile banking services.

RESEARCH METHODOLOGY

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.

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 – 350 Questionnaire were distributed among the user and non user of mobile banking basically Businessmen, servicemen, professionals, students etc.

OBJECTIVES OF THE STUDY

1. To understand the basic concept of Mobile Banking in India.
2. To Study the Challenges comes in front of users while adopting Mobile Banking.
3. To analyze the positive and negative factors of Mobile Banking.
4. To Study the various purpose of using Mobile Banking.

CHALLENGES WITH ADOPTION OF MOBILE BANKING

1. **Economic Challenges:** The rural population in India is spread across 600,000 villages, each with a low transaction value. Profitability can only be achieved by large volumes, requiring significant initiative from financial institutions. Unlike the very



successful M-PESA of South Africa, whose model has been very successful due to the lack of alternative payments in South Africa, India does possess some infrastructure in the forms of postal payments, reasonable transport and local governments. Therefore, any mobile banking must be inexpensive enough to be attractive for the end-customer over existing methods.

2. **Regulatory Challenges:** Although the RBI is supportive towards mobile banking in India, there are many regulations that are being put into place:
 - i. **Restricted to Financial Institutions:** The guidelines state that only existing financial institutions and banks are allowed to offer mobile banking. Although the guidelines cover Microfinance Institutions (MFIs), significant existing large fixed costs. For a very inexpensive solution, it would have been more effective to allow non-profit organizations or evangelical organizations to build their own MFI without being encumbered by large existing infrastructure.
 - ii. **Rupee Transactions:** All transactions must be done only in India's national currency, the rupee. While this may not be a threat in the beginning, this may pose a constraint for interoperability between Indian mobile payments and the world. Also, it excludes providers from the lucrative remittance market in India and limits areas from which mobile operators can be profitable.
 - iii. **Existing Account Holders:** The guidelines also state that only those having a valid bank account would be allowed mobile banking. This limits the full potential of mobile banking to extend micro-credit and bring banking to the large number of unbanked customers in India.
3. **Demographic Challenges:** India has 18 official languages which are spoken across the country. The state governments also are dictated to correspond in their regional language for official purposes. Additionally, two-thirds of the population in India is illiterate, creating difficulties in deployment of mobile banking solutions. For a pan-Indian mobile banking solution, this will be cumbersome to overcome.

POSITIVE IMPACT OF MOBILE BANKING

- **Cost Reduction:** The biggest advantage of mobile banking offers to banks is that it drastically cuts down the costs of providing service to the customers. For service providers, Mobile banking offers the next surest way to achieve growth. Countries



like India where mobile penetration is nearing saturation, mobile banking is helping service providers increase revenues from the now static subscriber base. Service providers are increasingly using the complexity of their supported mobile banking services to attract new customers and retain old ones.

- **To Control Fraud:** A very effective way of improving customer service could be to inform customers better. Credit card fraud is one such area. A bank could, through the use of mobile technology, inform owners each time purchases above a certain value have been made on their card. This way the owner is always informed when their card is used, and how much money was taken for each transaction.
- **Reminder Facility:** Similarly, the bank could remind customers of outstanding loan repayment dates, dates for the payment of monthly installments or simply tell them that a bill has been presented and is up for payment. The customers can then check their balance on the phone and authorize the required amounts for payment the customers can also request for additional information. They can automatically view deposits and withdrawals as they occur and also pre- schedule payments to be made or cheques to be issued. Similarly, one could also request for services like stop cheque or issue of a cheque book over one's mobile phone.
- **Easy to avail Mobile Services:** A mobile is almost always with the customer. As such it can be used over a vast geographical area. The customer does not have to visit the bank ATM or a branch to avail of the bank's services. Research indicates that the number of footfalls at a bank's branch has fallen down drastically after the installation of ATMs. As such with mobile services, a bank will need to hire even less employees as people will no longer need to visit bank branches apart from certain occasions. The use of mobile technologies is thus a win-win proposition for both the banks and the bank's customers. The banks add to this personalized communication through the process of automation.
- **Security features:** Customer will receive the alerts only in the mobile number, which he has registered with bank. Moreover the sensitive information such as account number is not sent as a whole. But only the last six digits and account type will be sent to the customer. The customer can receive his account balance and transactions only when the request is received from the mobile phone number registered with us



and duly authenticated by the 4 digit Code Number, which will be provided when PULL Alert services are introduced. The mobile phone number and the Code number from which the service is accessed will serve as a User ID and password for authentication. The Code number has therefore to be kept confidential

NEGATIVE IMPACT OF MOBILE BANKING

- ❖ **Security:** Security experts generally agree that mobile banking is safer than computer banking because very few viruses and Trojans exist for phones. That does not mean mobile banking is immune to security threats, however Mobile users are especially susceptible to a phishing-like scam called "smashing." It happens when a mobile banking user receives a fake text message asking for bank account details from a hacker posing as a financial institution. Many people have fallen for this trick and had money stolen through this scam. Online banking is usually done through an encrypted connection so that hackers cannot read transmitted data, but consider the consequences if your mobile device is stolen. While all banking applications require you to enter a password or PIN, many people configure their mobile devices to save passwords, or use insecure passwords and PINs that are easy to guess.
- ❖ **Compatibility:** Mobile banking is not available on every device. Some banks do not provide mobile banking at all. Others require you to use a custom mobile banking application only available on the most popular smart phones. Third-party mobile banking software is not always supported. If you do not own a smart phone, the types of mobile banking you can do are usually limited. Checking bank account balances via text message is not a problem, but more advanced features such as account transfers are generally not available to users of "dumb phones."
- ❖ **Cost:** Network service charges quickly add up. The cost of mobile banking might not appear significant if you already have a compatible device, but you still need to pay data and text messaging fees. Some financial institutions charge an extra fee for mobile banking service, and you may need to pay a fee for software. These extra charges quickly add up, especially if you access mobile banking often.

ANALYSIS AND INTERPRETATION OF DATA

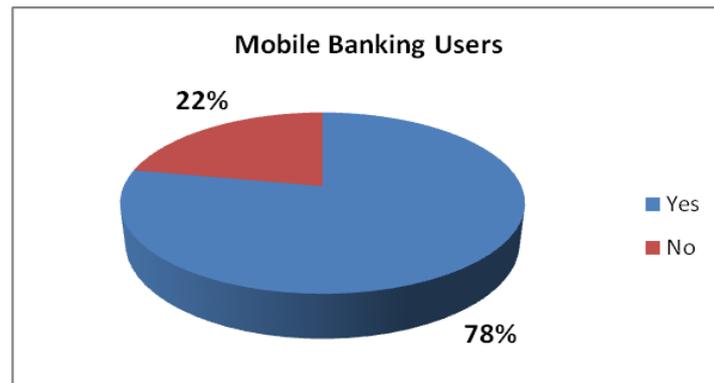


Fig1. Mobile Banking Users

The above chart shows that in today's time out of 350 respondents 78% use Mobile Banking and 22% are the non user's of Mobile Banking.

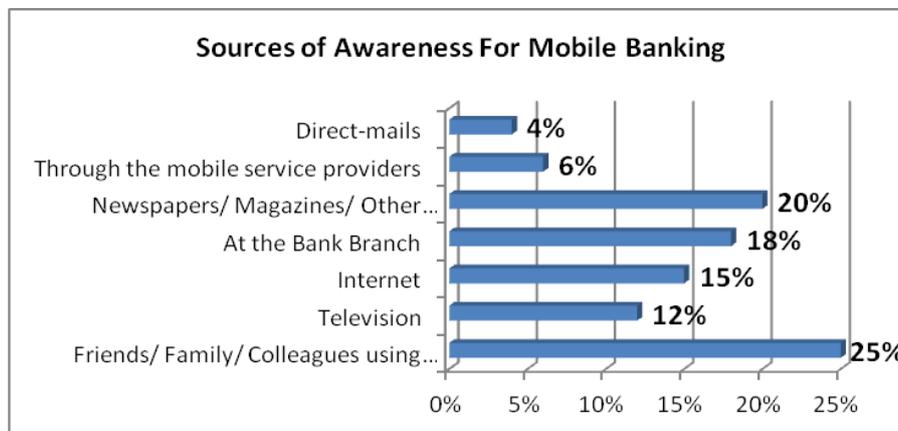


Fig2. Sources of Awareness of Mobile Banking

The Biggest source of awareness for Mobile Banking is Family / Friends/ Colleagues who are the users of Mobile Banking with 25%. Newspapers/ Magazines/ Other Printed Ads shows 20%.Internet, Television and the Bank Branch is 15%, 12% and 18%. Direct-mails 4% and Through the mobile service providers6% making the less contribution in it.

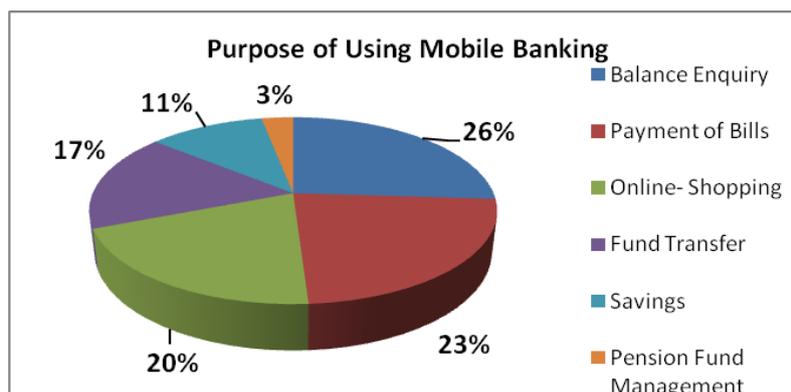


Fig3. Purpose of using Mobile Banking



26% Respondents use Mobile Banking for knowing Balance Enquiry, 23% for Payments of Bills, 20% for Online- Shopping, 17% for Fund Transfer, 11% and 3% for Savings and Pension Fund Management.

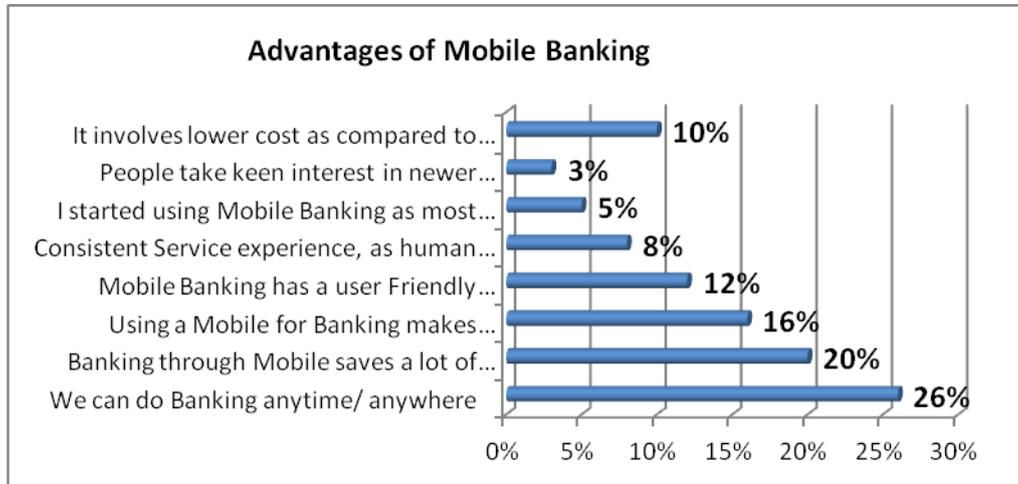


Fig4. Advantages of Mobile Banking

The above graph shows that easy access at anytime anywhere is the biggest reason for adopting Mobile Banking out of 350 respondents 26% adopts M- Banking due to this reason only. 20% adopt it because it saves time. 16% using it because Mobile for banking makes banking hassle free and effortless, 12% thinks that Mobile Banking has a user Friendly Interface. 10% says it involves lower cost as compared to the traditional or older modes of Banking. 8% thinks that it gives a Consistent Service experience, as human intervention is less 5% people started using Mobile Banking as most of my Family and Colleagues were also using it is and 3% people take keen interest in newer technologies is.

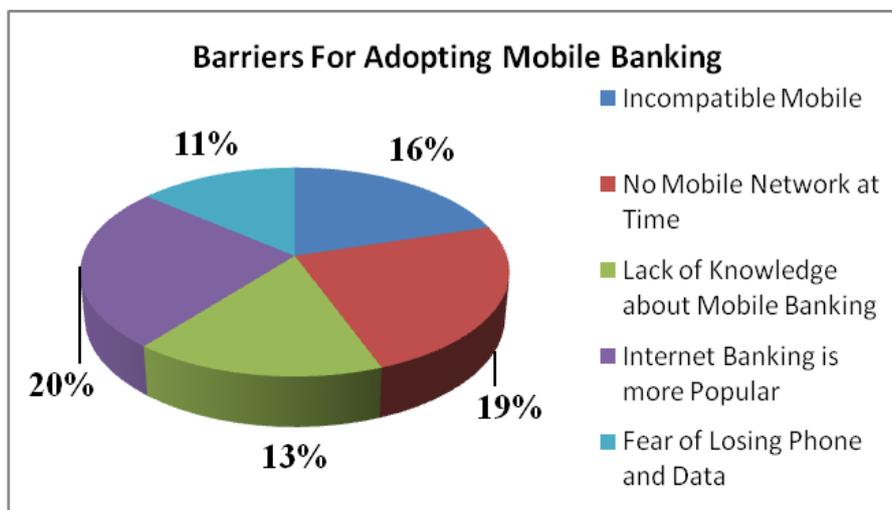


Fig5. Barriers for Adopting Mobile Banking



Out of 350 respondents 20% people avoid mobile banking because Internet Banking is more popular. 19% says No Mobile Network at Time is another major cause. 16% says that they are carrying Incompatible Mobile. 13% have Lack of Knowledge about Mobile Banking. 11% feels the Fear of Losing Phone and Data.

FINDINGS OF THE STUDY

1. Banks should create awareness about the mobile banking services through Advertisements, Pamphlets, Demo Fares, Campaigning etc. so that the customer feel informed and it may create interest among them.
2. Trust is also an important point of concern. Trust between the customers and the service provider is very important, without security and privacy users will not use mobile for financial transactions.
3. Perceived ease of use and perceived usefulness are found to be important factors to influence the consumer intention to adopt mobile banking. Hence, the main attention of management should be focused on the development of usefulness of system, trust building and cost reduction.
4. Perceived cost is also an important factor; therefore, this study suggests that the creative promotional and pricing strategies, including cost reduction should be implemented to attract more price-conscious customers.
5. It is also found that customers will adopt mobile banking if they find it easy to use and understand.

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, Govt., telecom service providers and mobile device manufactures along with bankers 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. Research so far has outlined a diversity of thinking and innovation that exists in the m- payments arena.



Numerous solutions have been tried and failed but the future is promising with potential new technology innovations.

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