

# GLOBAL JOURNAL OF ENGINEERING SCIENCE AND RESEARCHES

## MOBILE BANKING IN INDIA - BARRIERS AND ADOPTION TRIGGERS

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### ABSTRACT

In recent years Mobile Banking has become quite popular and convenient for many people. Presently it is enjoying rapid growth. Mobile banking (m-banking) has emerged as a popular mode of banking in many developed and developing countries. In India, there are approximately 12 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. To fully understand the current status and future trends in this market requires some comprehension of the general banking sector- the turf where mobiles compete with physical bank branches and computers. Also, knowledge of cellular phone penetration is needed to get a sense of who mobile banking services will reach. Mobile Banking has become a Buzzword in India over the past few years, with increased use of Smart phone to simplify financial transactions through a mobile device such as a mobile phone or personal digital assistant. The present paper makes an attempt to give conceptual framework of Mobile Banking, barriers and adoption triggers in very simple words. The future of mobile banks looks bright due to the continuous increase in customers' awareness and effectiveness of banking and regulatory system.

**Keywords-** Mobile Banking, smart phones or Android Phones, Barriers, Triggers, Mobile banking Adoption, Banks.

### I. INTRODUCTION

Using mobile phones is a very common practice. Commercial banks are exploring this opportunity to make their services more convenient for their customers. Growing number of mobile subscribers in the country is the most valuable support behind the success of mobile banking. Mobile banking is comparatively a new phenomenon in India as it started in 2000 when HDFC Bank became the first bank to launch mobile banking. A report of the Cellular Operators Authority of India (CAOI), regarding the entry of cell phones into India, depicts that it was in the year 1992 that telecommunication Sector in India liberalized to bridge the gap through Government spending and to provide additional resources for the nation's telecom target and the private sector was allowed to participate. In the year 1994 India was licensed to provide cellular mobile services granted by the government of India for the Metropolitan cities of Delhi, Mumbai, Kolkata and Chennai. Kolkata became the first metro to have a cellular network in 1995. TRAI was set up in the year 1997 for the regulation of telecommunication sector in India. In March 1999 National Telecom Policy (NTP) was announced. In 2003 CDMA network was launched. In 2004 Broadband policy was announced. Mobile phone subscribers had reached 100 Million by 2006. In 2008, RBI issued operative guidelines for banks for mobile banking transactions in India. By the year 2009, wireless subscriber base crossed 400 million. At present wireless mobile phone subscribers are 867 Million i.e. it has almost doubled in the last four years. With the advancement in the operating systems of the mobile phones and mobile technology like 2G, 3G, 4G has brought a significant change in the way of working of mobile banking services providers. Since the introduction of 2G and the subsequently 3G, the demand for mobile phone has increased many folds.

### II. MOBILE BANKING IN INDIA TODAY

Recent innovations in the telecommunication have proven to be a boon for the banking sector and for its customers: one of these is Mobile Banking. Mobile Banking is a service, where customers interact with the bank via mobile phones and banks provide them the services like short message services, fund transfers, account details, issue of cheque book etc. Presently almost all the banks in the world have started providing their customers "Mobile Banking" services. Mobile banking is comparatively a new phenomenon in India as it started in 2000 when HDFC Bank became the first bank to launch mobile banking. A Significant growth has been seen in the developed countries where the numbers of the users of the mobile banking has already exceeded 300 million. In May of the last year, COM SCORE released the data by doing the study on the use of mobile banking in Europe. The study reported

the existence of 20 million users in E5 (United Kingdom, France, Spain, Italy and Germany), representing 8.5 percent of the users of those markets. The market had grown 15.4% due primarily to the users of smart phones in which 40% growth was noted there. Spain stood above the average with 10.2% and ranked second, which was only suppressed by France with 10.3%. COM SCORE study also confirmed that men use mobile banking more than women i.e. 64.9% were men and 35.1% women.

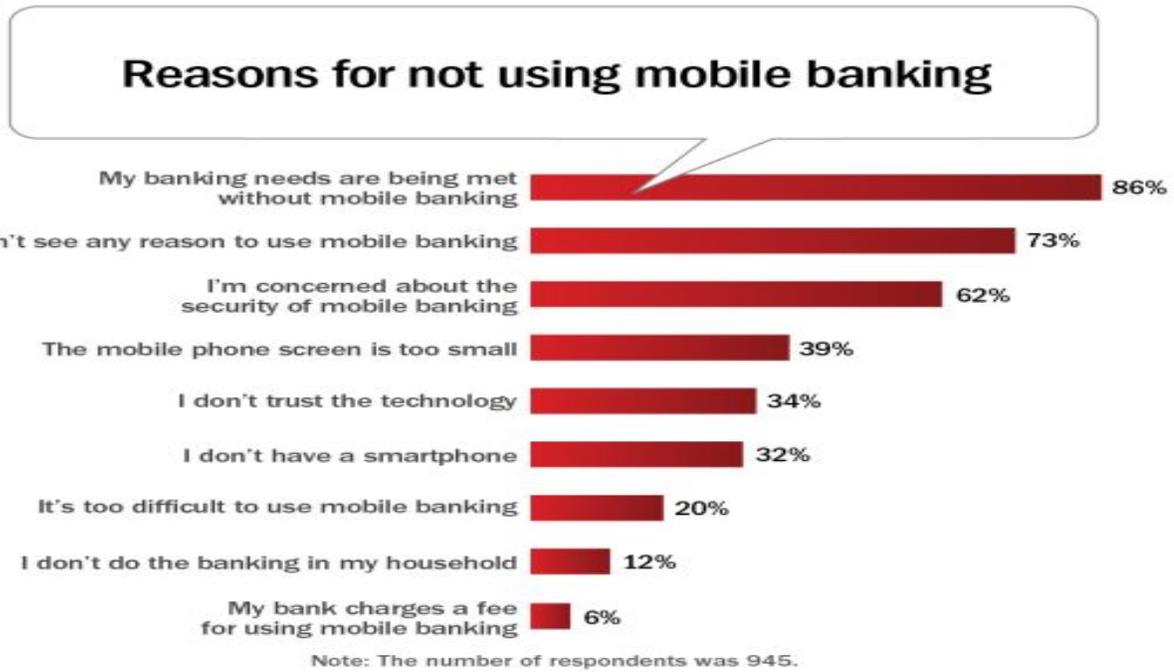
The Reserve Bank of India has also reported that the number of mobile banking transactions in India has increased from 6.76 million transactions (6,762,969 transactions) reported in August 2013, by 6.01% to 7.1 million transactions (7,169,429 transaction) for the month of September 2013, Mobile banking is gaining momentum as banking transactions by customers grew by 150% to Rs. 1,566 crore in September, 2013 from Rs. 625 crore in January.

### III. REVIEW OF LITERATURE

Mobile Banking, also known as M-Banking, can perform various functions like mini statement, checking of account history, SMS alerts, access to card statement, balance check, mobile recharge etc. via mobile phones (Vinayagamorthy and Sankar, 2012). Banks are constantly updating their technology and want to increase their customer base by reaching to each and every customer. There are many advantages of using mobile banking, such as people in the rural or remote areas can also get an easy access to mobile banking whenever required. Vinayagamorthy and Sankar, (2012) have discussed about the mobile banking and according to them it is a term that is used for performing various banking transactions like fund transfer, balance check, payments etc. via mobile phones. First mobile banking transaction services in India were offered by ICICI bank in January 2008 (Mr. V. Vaidyanathan, 2008) but SMS alerts started in 2005-06 (Alpesh Patel, 2013). Wireless phone subscribers in India crossed 867.8 Million in 2013, as per TRAI (Telecom Regulatory Authority of India Act, 1997) as compared to 261.07 in March 2008. So there is approximately 4 times increase in the number of subscribers. However, according to this report, subscribers who access the internet through wireless phones are 143.2 Million. Almost 16.5% of wireless mobile phone subscribers are using the Internet over their mobile phones. According to a Mobile banking report by Deloitte (Alpesh Patel, 2013), 17 Million Indians are using mobile phones for banking transactions. So, approximately 2% of wireless phone subscribers are using banking services on their mobile phones. Mobile banking is still in its nascent stage in India. Therefore, identifying and understanding the factors influencing the behavior of mobile phone subscribers is one of the fundamental requisite for development of mobile banking services in India. Research in the field of mobile banking is at the introductory stage in India. It started in the year 2005-2006, with the introduction of short message services (SMS) of mobile alerts for transactions. Then in the year 2008, Reserve Bank of India (RBI) issued the guidelines for mobile banking transactions. In the same year MTNL (Mahanagar Telephone Nigam Ltd.) launched 3G in India. In 2010-2011 India launched its first IMPS (Immediate Payment Service (IMPS) which is an instant interbank (similar to NEFT) transaction that can be initiated only through mobile phones or online or through SMS. In the year 2011-12, Vodafone and HDFC bank launched m-paisa and Airtel launched Airtel Money in 5 cities in India. In 2012-13 Airtel-Axis Bank launched a mobile banking service for financial inclusion and money transfer. According to operative guidelines for banks by RBI, only those banks which are licensed and supervised in India and have a physical presence in India will be permitted to offer mobile banking services (Chugh, 2014). According to RBI report, there are 82 banks that are permitted by RBI to provide mobile banking services throughout the India (Reserve bank of India, 2014) as compared to 21 Banks in the year 2010. During the last four years, the numbers of banks providing mobile banking services in India have increased four times. But numbers of mobile banking users have not increased at the same pace. There are many challenges that Indian banks are facing for increasing the mobile banking user database like Handset operability, Security, Scalability and Reliability, Application Distribution etc. Acceptance and adoption of this innovative technology is very complex and this 'complexity' attribute is studied by various researchers and they have suggested that banks should make these services easy to use by the Indian population because Indian population is not very well versed with this upcoming technology (Chaipoopirutana, Combs, Chatchawanwan and Vij (2009); Lin (2010); Sahin (2006).

### IV. MOBILE BANKING IN INDIA: BARRIERS AND ADOPTION TRIGGERS

Mobile banking has grown at a blistering pace in across many developing and developed countries around the world. In India relative to a very high mobile penetration rate, the use of mobile banking (m-banking) services remains low. However, with new cellular technology as a catalyst, m-banking looks well-poised to draw in millions of new users, who tired with the lumbering brick and mortar banking.



Source: Federal Reserve © March 2015 The Financial Brand

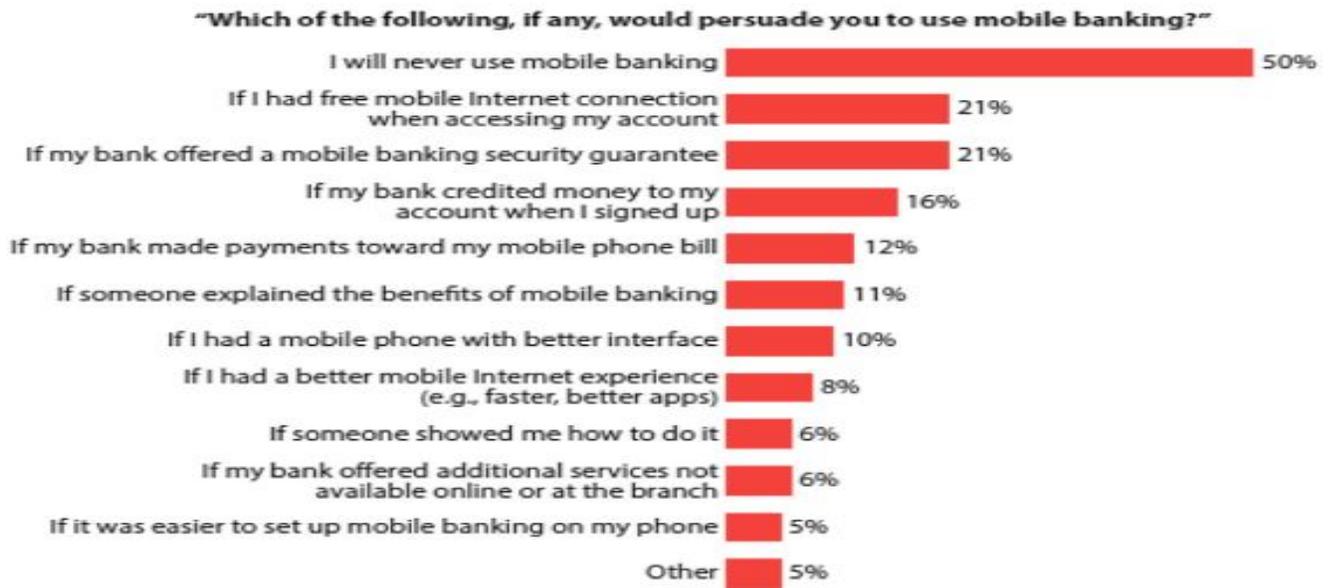
Security of financial transactions, being executed from some remote location and transmission of financial information over the air, are the most complicated challenges that need to be addressed jointly by mobile application developers, wireless network service providers and the banks' IT departments. There are a large number of different mobile phone devices and it is a big challenge for banks to offer mobile banking solution on any type of device. Some of these devices support Java ME and others support SIM application toolkit, a WAP browser, or only SMS. Another challenge for the banks is to scale-up the mobile banking infrastructure to handle exponential growth of the customer base. With mobile banking, the customer may be sitting in any part of the world (true anytime, anywhere banking) and hence banks need to ensure that the systems are up and running in a true 24 x 7 fashion. As customers will find mobile banking more and more useful, their expectations from the solution will increase. Banks unable to meet the performance and reliability expectations may lose customer confidence. Due to the nature of the connectivity between bank and its customers, it would be impractical to expect customers to regularly visit banks or connect to a web site for regular upgrade of their mobile banking application. It will be expected that the mobile application itself check the upgrades and updates and download necessary patches (so called "Over the Air" updates). However, there could be many issues to implement this approach such as upgrade / synchronization of other dependent components. It would be expected from the mobile application to support personalization such as: Preferred Language, Date / Time format, Amount format, Default transactions, Standard Beneficiary list which is not possible for the banks to cater the needs of every customer.

### V. AWARENESS & ADOPTION PATTERN OF MOBILE BANKING

Television and word of mouth and internet are the top sources for awareness overall. Word-of-mouth is particularly effective.

#### Triggers for adoption

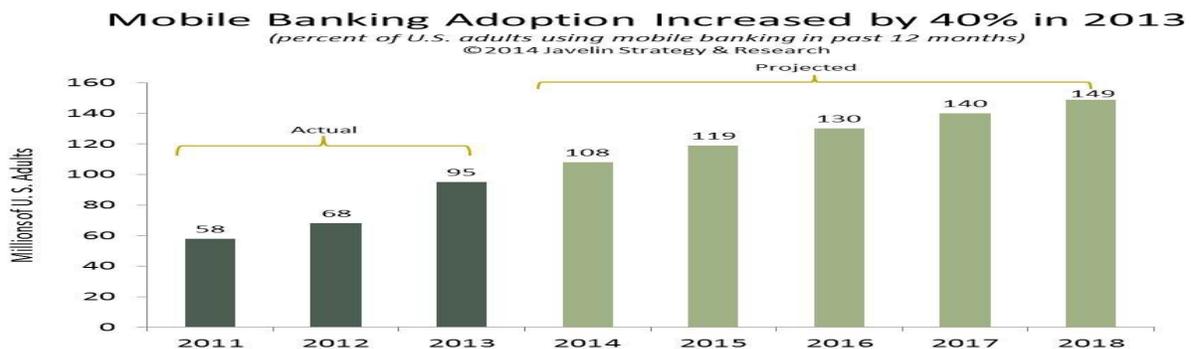
When asked what attracted them to the service, the comfort and convenience of using their cell phone emerged as the top reason for most users. Cell phones have made deep in-roads among the Indian population. All segments of individuals and households have one and are adept at using it. The idea of doing basic banking on such a familiar device is the immediate attraction.



**VI. FUTURE PROSPECTUS OF MOBILE BANKING IN INDIA**

Recently in India there has been a phenomenal growth in the use of Mobile Banking applications, with leading banks adopting Mobile Transactions. In mobile banking the service providers must think that they have to give their best services as per customer’s requirements and convenience. With the advent of technology and increasing use of smart phone and tablet based devices, the use of Mobile Banking functionality would enable customer connect across entire customer life cycle much comprehensively than before.

With this scenario, current mobile banking objectives of say building relationships, reducing cost, achieving new revenue stream will transform to enable new objectives targeting higher level goals such as building brand of the banking organization. Emerging technology and functionalities would enable to create new ways of lead generation, prospecting as well as developing deep customer relationship and mobile banking world would achieve superior customer experience with bi-directional communications. Among digital channels, mobile banking is a clear IT investment priority in 2013 as retail banks attempt to capitalize on the features unique to mobile, such as location-based services.



## VII. DISCUSSION & CONCLUSION

Mobile banking provides the promise of expanding both the quality of banking services and reach of banking services in a large country like India in a cost-effective manner. Using a consumer level survey, we investigated consumer needs that triggers adoption and barriers that serve to limit adoption of mobile banking. We also evaluate the satisfaction with mobile banking and how adoption of mobile banking changes usage of traditional banking services. Our key findings and takeaways are as follows: there is latent demand for mobile banking both among the richer upper classes and poorer middle classes. Overall, mobile banking seems to be an idea whose time has come. Our research suggests that supply side constraints are the bottlenecks to adoption; consumers are ready and waiting to adopt. Given the expansion of higher bandwidth data services, and accelerated price drops of smart phones, investments by banks in easy to use interfaces coupled with marketing of the services is essential. The banking business has always been different than other businesses because it comes in the services industry and financial services category. Every person who is making the transactions in finance is more conscious about its security. It has been seen that once a person is cheated in the matters of finance would become proactive. The banks, regulatory authorities and other organizations must do all the efforts to make mobile banking system as much secure as they can. It should be mistake less and provide maximum security and reliability to the users.

The connectivity with innovative modes of transaction in banking like ATMs, Internet Banking and mobile banking always requires lot of attentions from the side of service providers because a small interruption in the system can be proved very dangerous. The mobile banking infrastructure must be of the scale to handle exponential growth of the customer base. Mobile banking is anytime and anywhere, so that banks need to ensure that their systems remain ready for the same. These all efforts will certainly make the path for successful mobile banking in the country.

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