



# Mobile Banking: An Asset to Banks

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## **Abstract**

According to McKinsey Report, March 2010, more than 65% of population of India does not have a bank account. However 80% of population owns a mobile phone. Thus, banking over the mobile phone will play a major role in rural areas.

With rapid urbanization, when people from rural areas start to adapt to city life, they create demand for goods such as television, refrigerators, and mobile phones. They emerge potential mobile banking customers, a fact that banks have been quick to spot. Mobile banking enables customers to transact on their own confidently and reliably without the need to visit a bank.

The aim of the study is to find out whether mobile banking is an asset to banks especially in rural areas. This paper uses primary data and secondary data for research.

Methodology/Approach used is examination of the demographic, attitudinal and behavioural characteristics of the mobile bank users.

Keywords: Mobile banking, Rural Areas, Demographic, Attitudinal and Behavioural Characteristics.

## **1. Introduction**

We see the popularity of the mobile phone all around us and Mobile Phone has become an order of the day. A comparison between banking and mobile phone penetration in emerging markets is an eye-opener. According to McKinsey report in March 2010, in India, more than 65% of the population has limited or no access to a bank however, one out of two persons owns a mobile The banking penetration remains modest and this can be attributed to some crucial factors. However the integration between banking and telecom technologies will give birth to mass mobile banking.

In order to ensure a level playing field and considering that the technology is relatively new, the Government of India has taken the right initiative to set Industry standards for Electronic and Mobile payments to bring about desired effectiveness. The Reserve Bank has brought out a set of operating guidelines for adoption by banks for the Mobile Banking transactions in India. There are in effect guide lines viz. Mobile Banking Guide lines, Prepaid Instruments Guidelines and the Mobile banking for the financial Institutions.

Mobile phones as a delivery channel for extending banking services have off-late been attaining greater significance. The rapid growth in users and wider coverage of mobile phone networks have made this channel an important platform for extending financial services to customers. With the rapid growth in the number of mobile phone subscribers in Indian, banks have been exploring the feasibility of using mobile phones as an alternative channel of delivery of banking services. Some banks have started offering information based services like balance enquiry, stop

payment instruction of cheques, transactions enquiry, and location of the nearest ATM/branch etc. Acceptance of transfer of funds instruction for credit to beneficiaries of same/or another bank in favor of pre-registered beneficiaries have also commenced in a few banks. For the purpose of these Guidelines, "mobile banking transactions" is undertaking banking transactions using mobile phones by bank customers that involve credit/debit to their accounts. It also covers accessing the bank accounts by customers for non-monetary transactions like balance enquiry etc.

## **2. Mobile Banking**

Mobile banking also known as M-Banking, SMS Banking etc. is a term used for performing balance checks, account transactions, payments, credit applications etc. via a mobile device such as a mobile phone or Personal Digital Assistant (PDA). The earliest mobile banking services were offered via SMS. With the introduction of the first primitive smart phones with WAP support enabling the use of the mobile web in 1999, the first European banks started to offer mobile banking on this platform to their customers.

Mobile banking has until recently, most often been performed via SMS or the Mobile Web. Apple's initial success with iPhone and the rapid growth of phones based on Google's Android (operating system) has led to increasing use of special client programs, called apps, downloaded to the mobile device.

Mobile Banking offers services which include facilities to conduct bank and stock market transactions, to administer accounts and to access customized information. Over the last few years, the mobile and wireless market has been one of the fastest growing markets in the world and it is still growing at a rapid pace. With mobile technology, banks can offer services to their customers anytime anywhere, receiving online updates of stock price or even performing stock trading while being stuck in traffic.

A wide spectrum of Mobile/branchless banking models is evolving. However, no matter what business model, if mobile banking is being used to attract low-income populations in often rural locations, the business model will depend on banking agents, i.e., retail or postal outlets that process financial transactions on behalf of mobile service providers or banks. The banking agent is an important part of the mobile banking business model since customer care, service quality, and cash management will depend on them. Many service providers will work through their local airtime resellers.

India's mobile phones will reach more than the targeted half billion people by the end of 2011 or 60 per cent of the tele-density, going by the country's telecom ministry estimates.



According to a report, approximately 43 million urban Indians used their mobile phones to access banking services during quarter ending August, 2009, a reach of 15% among urban Indian mobile phone user.

Reserve Bank of India (RBI) has taken progressive steps to accelerate the rollout and adoption of mobile banking services. Based on the requests received from the banks, the Reserve Bank of India has now hiked the daily ceiling for mobile banking transactions to Rs 50,000 per customer for both funds transfer and transactions involving purchase of goods and services.

Thirty-two banks have been given approval to provide mobile banking services in India. Of this, 21 banks have already started providing these services to their customers. ICICI Bank now has eight million customers registered for mobile banking services. It is closely followed by HDFC Bank & State Bank of India.

In RBI's Vision for Payment Systems in India- 2009-12, Mobile payments settlement network is one of the major projects intended to be pursued by banks. Technology will play a major role in these initiatives and will provide vendors new business opportunities in India.

### **2.1 Mobile Banking Services**

Mobile banking can offer services such as the following:

- Account Information
- Mini-statements and checking of account history
- Monitoring of term deposits
- Access to loan statements
- Mutual funds / equity statements
- Insurance policy management
- Pension plan management

### **2.2 Challenges For Mobile Banking Services**

Key challenges in developing a sophisticated mobile banking application are:

#### **Handset operability :**

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. Initial interoperability issues however have been localized with countries like India using portals like R-World to enable the limitations of low end java based phones.

#### **Security :**

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.

Security of any thick-client application running on the device:

In case the device is stolen, the hacker should require at least an ID/Password to access the application and authentication of the device with service provider before initiating a transaction. This would ensure that unauthorized devices are not connected to perform financial transactions. User ID / Password authentication of bank's customer, encryption of the data being transmitted over the air, encryption of the data that will be stored in device for later / off-line analysis by the customer, one-time password (OTPs) are the latest tool used by financial and banking service providers in the fight against cyber fraud. Instead of relying on traditional memorized passwords, OTPs are requested by consumers each time they want to perform transactions using the online or mobile banking interface.

#### **Scalability & Reliability:**

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
- Alerts

#### **Application distribution & Settings:**

Operator settings are not really meant for critical operations since most of the settings are used for entertainment based activities. For Mobile Banking it is another area where some Banks are facing challenges. While some forward looking Banks are overhauling their gateways and reducing their reliance on Mobile Operators settings to enable customer's phones, Some Banks are actually asking that Customers come with regular Operator settings which in many instances might not be correct configurations settings. Banks that are looking at competing at this sector must look beyond operator's settings which might not be correct, delayed in arrival, may not come at all and not regularly updated. Some Mobile operators do update like every three months while some do not at all. For wap and Gprs based Mobile Banking applications, mobile network coverage will also be an issue.

### **3. Objectives Of Research**

- (a) To study the awareness of mobile banking.
- (b) To find out whether mobile banking is an asset to the banks especially rural areas.

### **4. Research Methodology**

The research method used was the structured survey research. A questionnaire was prepared and addressed to the residents of Pune's elite area i.e. Deccan Gymkhana which represents the urban population of Pune and the villagers of Khanapur and Donje, Mulshi area which represents the rural



population. The sample size selected was 200 people from urban and 150 people from rural areas of Pune.

### 5. Financial Inclusions Through Rural - Banking

Mr. Sam Pitroda, advisor to Prime Minister on public information, the person who brought in the Telecom revolution in India, has said in a seminar on financial inclusion, that over 250,000 panchayats will soon be connected with broadband connections. He is planning to bring fibre cable to majority of them. According to him, financial inclusion cannot be achieved without inclusive growth and every initiative should be directed at the rural poor. He said mobile banking is the next big challenge for government and it will change the nature of banking in India. If merchants, bank and operator can come together, they can develop a platform for mobile banking. Mr. Pitroda said he is trying to set up new platforms for the new generation. For the first time we are a country of 600 million connected people.

Thousands of people from rural areas across 12 states are likely to get their social security pension and wages paid under the National Rural Employment Guarantee Act (NREGA) scheme with the help of mobiles over the coming few months. In Andhra Pradesh alone, for instance, 250,000 people have registered for mobile banking services. The state government is rolling out a programme to enroll three million people by the end of 2008. Mobile banking pilots and full-scale operations has been conducted across 12 states, and the entire ecosystem is being managed by the government with the help of the Reserve Bank of India, banks, leading telecom operators and technology implementation partners.

A Little World (ALW), a technology implementation partner, has collaborated with NXP Semiconductors to design a mobile for the AP government that encloses an RFID card, and works with ALW's micro-banking platform ZERO. The mobile acts as a branch of the bank by storing a database of customers. It also has a smartcard, which biometrically stores the identity of the customer such as name, address, photograph, fingerprint templates and relevant details of the savings or loan accounts held by the issuing bank. Customers get a secure electronic identity via phone or smartcard, while agents take deposits and dispense cash. ALW works with the banks on a revenue-sharing basis.

Anurag Gupta, founder director & CEO of ALW, says: "We have carried out pilot projects with SBI in villages located in some of the most inaccessible and difficult terrains of the country such as Pithoragarh in Uttarakhand, Mizoram, Meghalaya, and remote villages in Andhra Pradesh." Lokanath Panda, director, ALW, also pointed out that SBI had tied up with the Indian Post to extend banking services especially in unbanked/under-banked areas. "Select post offices will make available to the public SBI's deposit and loan products, and ALW is the technology partner." ALW is also conducting a pilot programme with SKS Microfinance and the Bank of India to provide a mobile banking service that works on BSNL SIM cards.

Airtel has already partnered with the Indian Farmers' Fertilizer Cooperative Limited (IFFCO) to set up IFFCO Kisan Sanchar Limited in Rajasthan. Under this initiative, the cooperative department will provide mobile handsets to farmers at marginal price through its outlets in the rural areas. These handsets would be loaded with green SIM cards, which will flash daily updates on agricultural practices and weather forecast free of cost.

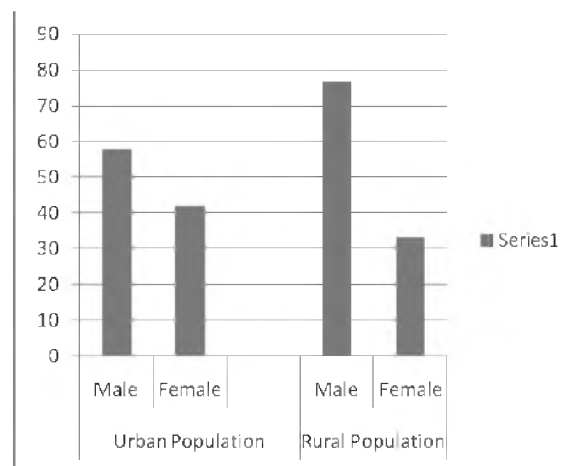
While he did not provide details, Kapoor hinted that the partnership deal would be extended to mobile banking services too. Kapoor reasons that with 55 per cent of the mobiles being internet-enabled, mobile banking would help bridge the digital divide.

ICICI Bank account holders with Reliance handsets (even the low-end Rs 1,000 ones - with or without Internet connectivity) to make intra-bank (to ICICI account holders) money transfers. It has already tied up with HDFC to offer Reliance mPay - a virtual credit card.

### 6. Findings & Analysis

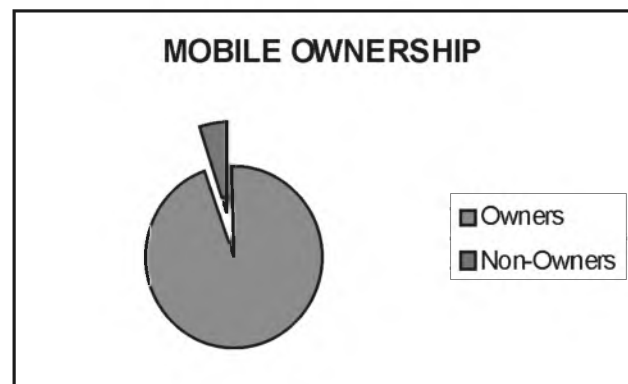
(a) Out of the total urban population 56% were male respondents and 44% were female respondents. Out of the rural population 77% were male respondents and 33% were female respondents.

Fig 1 : Percentage of respondents



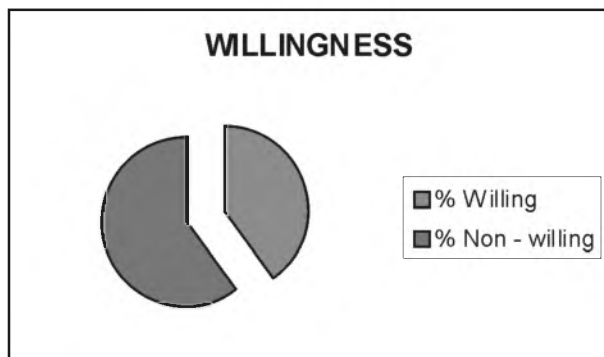
(a) Out of the total respondents 95% owned mobile. Rest 5% used their relatives or friends mobile.

Fig 2: Mobile Owners



- (a) Out of the total urban population 82% had bank account while only 26% of rural population had a bank account. This shows that most of them have a mobile phone but don't have a bank account.
- (b) It was observed that 42% of people used GPRS facility on their mobile. The rest used mobile only for communicating.
- (c) Out of the total respondents only 12% were aware that banking service can be availed over the mobile.
- (d) 40% of the respondents expressed their willingness to use mobile for banking purpose.

Fig 3: Willingness of Mobile users to use mobile banking



- (a) Majority of the above would like to use mobile service for Account balance enquiry, last five transactions statement, Status of cheque clearance.
  - (b) Younger population showed keen interest to use mobile phone for money transfer, bill payments and stock market trading.
  - (c) 17% of respondents were apprehensive to use mobile banking for security purposes. They preferred the traditional methods of banking.
  - (d) People in the income group 3 lakhs and above were more interested in using mobile banking than wasting their time going to the bank or using the computer for account balance enquiry, deposits and payments.
- The survey indicates that financial institutions still need to do more to educate consumers about the security of conducting financial activities on their cell phones and other mobile devices. A majority of respondents cited fear of transaction security as a key reason that would prevent them from using mobile banking. Due to lot of bank closures due to bankruptcy or scams, consumers are monitoring their finances especially bank statements on a regular basis. Thus mobile banking has a greater scope. Nearly two-thirds of the consumers surveyed reported contacting their financial institution once a month or more. Among owners of smart phones and other high-end devices, consumer interest and usage of mobile banking services was significantly higher than among users of basic cell phones. The top three reasons for phone or other high-end device indicating a desire to do more than just talk. The rapid adoption of high-end mobile devices over the next couple of years suggests mobile banking may have a bright future.

## 6. Conclusion

Mobile banking has come in handy in many parts of the world with little or no Infrastructure development, especially in remote and rural areas. This part of the mobile commerce is also very popular in countries where most of their population is un-banked. In most of these places banks can only be found in big cities and customers have to travel hundreds of miles to the nearest bank. Mobile banking is also seen as the most promising front end technology for broadening the access of banking in the country. Immense potential of mobile banking in the process of financial inclusion and financial growth is now well acknowledged.

It's time for banking offerings to make the same evolutionary progress that automobiles, entertainment devices or mobile phones have made. This means offering choice, becoming smarter, better packaged, cheaper and easier to use. With the expectation that the number of deposit account holders will double from its current 400 million to 800 million by 2019, banks need to find innovative ways of on-boarding new customers and servicing existing ones. Clearly, there is no shortage of challenges or opportunities. The emergence of mobile telephony and its hi-tech variants such as 3G and BWA, kiosks, ATMs and Internet will ensure that banks get to ride the growth wave like other industries. Parallel to the Internet bank concept, we envisage the rise of the mobile-only bank, where every banking activity from origination and transaction to fulfillment and settlement can be completed using a mobile phone.

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