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FINANCIAL INCLUSION THROUGH MOBILE BANKING A CASE OF INDIA



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ABSTRACT

Financial inclusion is the delivery of financial services at affordable costs to sections of disadvantaged and low-income segments of society. Financial services are critical for economic development. In order to increase income levels, it is essential to provide access to formal financial services for people without reaching the Bank location and this possible through mobile banking. Mobile banking is one of the potential routes for financial inclusion in India. This paper intends to analyze prospects mobile banking India, technology available for mobile banking, finally advantages and major concerns for implementing mobile banking in India.

KEY WORDS: Financial inclusion, Economic development, Mobile Banking, Financial services.

INTRODUCTION

Financial inclusion is the delivery of financial services at affordable costs to sections of disadvantaged and low-income segments of society, in contrast to financial exclusion where those services are not available or affordable. An estimated 2.5 billion working-age adults globally, known as the unbanked or under banked, have no access to the types of formal financial services delivered by regulated

financial institutions. The Rangarajan committee defined Financial inclusion as "The process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low income groups at an affordable cost" (Rangarajan Committee, 2008). In India, the term financial inclusion first featured in 2005, when RBI, in its annual policy statement of 2005-

06, while recognizing the concerns in regard to the banking practices that tend to exclude rather than attract vast sections of the population, urged banks to review their existing practices to align them with the objective of financial inclusion.

Financial services are critical for economic development. In order to increase income levels, it is essential to provide access to formal financial services for people without reaching the Bank location. A new revolution in the realm of online banking, which is now moving to the mobile world, giving everybody with a mobile phone access to real time banking services, regardless of their location. M banking provides a new way to pick up information and interact with the banks to carry out the relevant banking business. Mobile phones can deliver such services via mobile transactions (m-transactions) – financial transactions made using a mobile phone without visiting banking location. Mobile banking in India is in a budding stage, with the high penetration of mobile phones acting as a growth driver. The country is second largest mobile phone population of over 600 million subscribers, at a penetration rate of 57 percent. At the same time, nearly 40 percent of the Indian population remains unbanked. A majority of unbanked population resides in rural India, where penetration of mobile phone is 31 percent and growing very fast. An estimated 8 million rural Indians who own mobile phone do not have access to banks. 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. Mobile banking is also seen as the most promising front end technology for broadening the access of banking in the country. The immense potential of mobile banking in the process of financial inclusion and financial growth is now well acknowledged.

OBJECTIVES OF THE STUDY

- ◆ To identify prospects of mobile banking in India.
- ◆ To study the advantages of Mobile banking
- ◆ To know the technology available for mobile banking.
- ◆ Identifying the major concern for implementing mobile banking in India.

RESEARCH METHODOLOGY

Data for this paper were derived from secondary sources, previous researches and analyses of scholars, magazines, as well as National and International journal articles that are related to the subject. The methodological approach in this study is exploratory in nature.

LITERATURE REVIEW

A study done by Edgar, Dunn and company, management consultants in Feb 2007 on “Mobile Financial Services Study”, identified that the success of Mobile Financial Services for the Unbanked/Under banked will depend on consumer education and a sound business model. Further stated that adequate consumer education on how to access, use and trust financial services in conjunction with mobile technology will be critical to the adoption of this method of financial servicing as well as

for more people to access the financial resources they need and also stated that Mobile financial services are likely to fail if key stakeholders such as financial institutions and mobile carriers do not structure a sound business model to operate effectively.

A study on “Adoption Of Customers Of M-banking Services: Iranian Perspective” by Samaneh Soroornejad, has identified in the research that customer adoption of mobile banking services is strongly dependent on the degree of risk taking. In other words people who are more risk taken and innovative prefer to use the new and innovative mobile banking services more than others.

Another study on “Modeling Factors of Consumer Resistance to Mobile Banking” done by Suvi Sinkkonen*, Pekka Laukkanen, Marke Kivijärvi and Tommi Laukkanen, Department of Business and Management, University of Kuopio, Finland. The main pupose of the study was to clarify the appeared resistant causing factors and model them. A questionnaire to measure the barriers to mobile banking adoption was designed. An Internet survey was conducted and 2.060 responses were collected. Confirmatory factor analysis was used for analysing and modeling the barriers. The results attest that the strongest and most emphasised barrier in the model was the image barrier followed by the usage, value and risk barriers. The tradition barrier was the weakest in the model. Hence, it was concluded that the functional barriers (the usage, value and risk barriers) to mobile banking were stronger and more emphasised in the model and in the resistance in general than psychological ones (the tradition and image barriers).

The presentation on “Mobile Banking Services Reaching the Under- and Un-Banked” Prepared by Larry SanBoeuf, IZDIHAR November 14, 2006 identified Regulatory /

Legal,Bank Participation, Customer Acceptance / Trust, Inter-Bank Clearing Capabilities are the major Obstacles to success for the success of mobile banking in Iraq.

The paper on “The Development of Mobile Money Systems” by Ernesto Flores – Roux and Judith Mariscal, published in the *Proceedings of the 4th ACORN-REDECOM Conference Brasilia*, D.F., May 14-15th, 2010. They argued that mobile banking offers the opportunity to diminish the financial exclusion suffered by the poor by offering access to credit and to savings which are key tools capable of transforming the livelihoods of the poor as well as the efficiency of the market. However, mobile phones need a complete ecosystem that supports its application to a functioning mobile banking service. The paper highlights the two key barriers to financial inclusion for the poor: affordability and physical availability.

In an article by Fabien Buliard on “Mobile banking taking off, any minute now” in 2009, Based on a Pan-European survey of 5,000 online banking users and of about forty banking and mobile phone luminaries, the study predicts that within two to three years, making purchases and managing banks accounts on a mobile phone will become common practice. Customers seem to be ready for it, too. 66% of respondents said they would be interested in using their mobile to manage their account, while 70% would use it for payment purposes. 25% of them even said they were prepared to change banks for an attractive mobile banking offering, while only 4% of bankers polled considered mobile banking to be a potential customer acquisition tool. However, half the bankers see it as a customer relationship management channel in its own right. The study also revealed that the security aspect of mobile transactions remains a prominent concern, with 50% of respondents

seeing increased security as the main change banks need to make to their mobile offering. Still, it appears that most prerequisites (mature technology and client demand) now seem to be in place for a richer mobile banking experience.

TECHNOLOGIES AVAILABLE FOR MOBILE BANKING

Technology will play a major role in these initiatives and will provide vendors new business opportunities in India. Technology reduces cost on one hand and enhances reach and efficiency on the other. Efficient leveraging of technology based on well defined business strategy is the key to determine the business growth of any organization more particularly banks. Effective implementation of technology will help the banks in taking on the competition successfully and furthering their achievement in the area of financial inclusion as well. The mobile technology options available today allow for a variety of choices when implementing Mobile Financial Services. Options range from technologically secure end-to-end implementations to less secure options that do not have full mobile to banking system security.

SMS (Short Messaging Service)

- Good for notifications;
- Keyword based services;
- Micro Payment services via premium rated services;
- Available on any handset.

USSD (Unstructured Supplementary Service Data)

- ⇒ Menu based services;
- ⇒ More intuitive than SMS;
- ⇒ Available on any handset.

WAP (Wireless Application Protocol)

- Handset limitations (growing penetration);
- Many networks in Africa not packet-data enabled yet (GPRS/3G/HSDPA);
- But will become the access medium of choice in the future.

WIG/SIM Toolkit

- ↪ Application has to be downloaded;
- ↪ SMS based;
- ↪ Encrypted;
- ↪ Usability an issue?

Java

- Complicated to implement;
- Application has to be downloaded;
- J2ME compatibility not ubiquitous.

(IVR) Interactive Voice Response

Interactive Voice Response is a phone technology that allows a person, typically a telephone caller, to select options from a voice menu and interact with the phone system. A pre-recorded voice prompt is played and the caller presses a number on a telephone keypad to select an option, i.e. "press 1 for yes, press 2 for no". Speech recognition can also interpret the caller's simple spoken answer such as "yes", "no", or more complex words, sentences and business names, or a number as a valid response to the voice prompt.

Penetration of Mobile Phones and Bank Account in Selected Countries

The below table depicts that, there are a very low percentage of banked individuals in these selected developing countries; however, the unbanked do have access to a mobile phone.

Country	Gross National Income Per Capita (US\$)	Mobile Penetration (%)	Banked (%)
Mexico	7310	54.71	25
Brazil	3460	56.03	46
Nicaragua	910	32.62	5
Guatemala	2400	55.6	32
Argentina	4460	80.52	28
Chile	6040	75.62	60
Colombia	2340	64.31	41
Peru	2640	30.92	26
South Africa	4960	77.06	46
China	1740	34.71	42
India	720	14.76	48
Kenya	530	19.92	10

The dramatic spread of mobile phones in developing countries provides new opportunities to extend a range of services to poor and under-served populations, including those in more rural and remote areas. According to recent estimates, the mobile “footprint” now covers 90% of the population of most developing countries. There is growing interest and experimentation with using mobile phones to extend financial and related financial services to a wider population in developing countries, where a significant percentage of the population – particularly the poor – is “unbanked”.

The mobile phone revolution is sweeping across India and has the potential to dramatically transform the lives of the nation’s rural poor. An estimated 8 million rural Indians who own mobile phones do not have access to banks. This gap is only widening. Intense competition and innovation within the telecommunications sector in the last decade has catapulted India into the largest and fastest-growing mobile phone market in the world. Today India is uniquely poised to make use of mobile banking technologies as a conduit for not only bridging the “digital divide,” but also fostering financial inclusion. In India’s highly unequal society, where 40 percent of the population has no access to financial services, “inclusive growth” has been recognized as a key priority for securing the future success of the country.

INDIA’S MEGA MOBILE PHONE MARKET

With an estimated 555 million subscribers and at least 17 million being added each month, India’s booming mobile phone market represents a feature of India’s rapidly modernizing economy. While demand for mobiles has permeated all socioeconomic strata, a striking feature is that growth in mobile use in recent years has been powered by rural India. According to the Indian Council for Research on International Economic Relations (ICRIER), rural tele-density has soared to 12.72 percent from 0.4 percent and urban tele-density to 72.47 percent from 5.8 percent in the past decade. Rural India is huge and challenging market to reach; Rural India’s 626,000 villages make up 70 percent of the workforce and generate 20 percent of India’s GDP. India’s rural markets are also harder to tap due to illiteracy, lack of accessibility for services and technology, regulatory barriers, etc. To serve this market, banks should make use of pre existing networks like rural banks, microfinance institutions, local self help groups and post offices. It is also important to leverage technology in reaching out to this market.

ADVANTAGES OF MOBILE BANKING

Mobile banking through cell phone offers many advantages for customers as well as banks. Some of them are as follows:-

- ★ Mobile banking has an edge over internet banking. In case of online banking, you must have an internet connection and a computer. This is a problem in developing countries. However, with mobile banking, connectivity is not a problem. You can find mobile connectivity in the remotest of places also where having an internet connection is a problem.
- ★ Reduces transaction cost: Mobile banking enables banks to reduce cost of courier, communication, paper works, etc. It reduces costs in setting up a branch and the resources to process transactions.
- ★ You can make transactions or pay bills anytime. It saves a lot of time.
- ★ Mobile banking is available round the clock 24/7/365, it is easy and convenient and an ideal choice for accessing financial services for most mobile phone owners in the rural areas.
- ★ Helps in improving services: as there is a direct contact between customers and banks, banks can improve their services on the basis of customers feedback.
- ★ Cell phone banking is cost effective. Various banks provide this facility at a lower cost as compared to banking by self.
- ★ Banking through mobile reduces the risk of fraud. You will get an SMS whenever there is an activity in your account. This includes deposits, cash withdrawals, funds transfer etc. You will get a notice as soon as any amount is deducted or deposited in your account.

- ★ Various banking services like Account Balance Enquiry, Credit/Debit Alerts, Bill Payment Alerts, Transaction History, Fund Transfer Facilities, and Minimum Balance Alerts etc. can be accessed from your mobile.
- ★ Banking through cell phone benefits the banks too. It cuts down on the cost of tele- banking and is more economical.
- ★ Banks can be in touch with their clients with mobile banking.
- ★ Banks can also promote and sell their products and services like credit cards, loans etc. to a specific group of customers.

MAJOR CONCERNS FOR IMPLEMENTING MOBILE BANKING IN INDIA

1. Lack of Awareness.
2. Lack of support in vernacular languages.
3. Security of mobile transaction being executed from some remote location and transmission of financial information over the air, are most complicated challenges that need to be addressed.
4. Mobile banking users are at risk of receiving fake SMS messages and scams.
5. Lack of common technology-There is lack of common technology standards for mobile banking, many protocols are being used for mobile banking-HTML, WAP, SOAP, XML to name few. 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 J2ME and others support WAP browser or only SMS.

6. Personalization-It would be expected from the mobile application to support personalization such as (1) Preferred Languages. (2) Date/Time format. (3) Amount format. (4) Default transactions.
7. Non availability of reliable data with regard to the financial health and transactions of rural people.

FUTURE OF MOBILE BANKING

- * Mobile banking is the future because of its cost effectiveness and ability to reach out to customers in remote areas. It will take 5-6 years for the model to mature.
- * Cheque truncation can be done via mobile phones. In US it is called 'Cheque 21' or 21st century cheque payment. Not yet available in India.
- * Banks will be able to approve and give loans via mobile banking within the next five years. This will further reduce the need to go to a branch.

CONCLUSION

Financial inclusion and economic development are closely related. Use of mobile as one of the way to reach unbanked people is good thing for financial inclusion. Mobile banking is considered a new era in banking, in which banks are spending considerable amount of money to have it available to their customers and to cut their operations costs. Unfortunately, evidences have shown that a large number of customers do not use Mobile banking for various reasons, despite its benefits. Government, Banks and telecommunication companies jointly have to put effort to overcome the problems of mobile banking and make it successful.

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