

Vital role of ICT in Financial Inclusion: An embodying opportunity for India

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Abstract

The escalation in usage of Information and Communication Technology is making world amalgamated. India's Information and Communication Technology (ICT) sector is perceived as an embodying opportunity that globalization offers to a low-income emerging country. One of the biggest challenges in forthcoming next decade for Indian banks is to capture the banking business of approximately 50% population of the country of almost 1.2 billion people. The Reserve Bank of India is encouraging banks to increase the usage of technology for maximizing its reach and enhancing its viability in the most remote areas of the nation. Thus ICT has vested even ignorant customers to activate bank accounts using biometrics, rendering the signature redundant. The paper endeavors to explain the growth of Financial Inclusion into Indian economy with the aid of ICT. The paper concludes with few suggestions that can augment the Financial Inclusion process to reach extremes of Indian economy.

Keywords: Information and Communication Technology, Financial Inclusion, Business Correspondent model

Introduction

The escalation in usage of Information and communication technology is making world amalgamated. India's information and communication technology (ICT) sector is perceived as an embodying opportunity that globalization offers to an emerging economy. It assures improving the efficiency and delivery of the potential benefits of rural and urban development programmes and schemes focused on alleviating poverty. The last quarter of 20th Century has widely seen the developments in information and communication technologies as having foreshowed an information age through which economic and social activity has been amplified and deepened. Information technology is considered as revolutionary because it ensures that transformation of productive capacity takes place in essentially all sectors. Information and communication technology (ICT) is considered as a key element in today's age for economic development. India's technology paradigm and ICT marketplace are expected to experience significant changes. The government has also been taking a number of steps in the form of economic reforms, facilitating growth, fostering transparency, and building up infrastructure and bringing in foreign investment. These steps have done much to improve business sentiments. India's businesses are now eager to embrace growth and seek smart solutions by using information and communication technology which will help them to accomplish their goals. In the midst of all

this, India's technology paradigm and ICT marketplace are expected to experience significant shifts.

ICT and Financial Inclusion

Developments in Information and Communication Technology (ICT) have made visible effects in almost all sectors of the World economy. The influence of technology espousal particularly in the banking sector has transformed the appearance of Indian industry. For any healthy economy a strong and robust banking sector stands as a strong pillar. For Inclusive economic growth through banks in a country, ICT works as a strong facilitator. ICT has improved the efficiency of the banking not only by strengthening the back end administrative processes but also front end operations. It thus resulted in low transaction costs for customers which has been the major focus of the ICT for financial inclusion. Banks now-a-days have adopted centralized operations wherein banks and their branches are shifting towards providing core banking solutions, network based computing and ICT for customer relationship management. ICT thus has developed as a robust facilitator by reducing the transaction costs, overcoming the barriers such as limitations of infrastructure and high cost of maintaining setup.

One of the biggest challenges in forthcoming next decade for Indian banks is to capture the banking business of approximately 50% population of the country of almost 1.2 billion people. Poor people are in need to have access of financial products which have low transaction cost. They should be provided assistance in relation to financial literacy, awareness and accessibility of customized financial products. Although banks and regulators play main role to bridge the gap of 'haves' and 'have not's' but there is a need to think beyond conventional methods and delivery channels to speed up their efforts. Financial Inclusion is one of the biggest milestones crafted by banks to reach the extremes of the country.

Table.1 Important milestones on road to Financial Inclusion in India:

1904	<i>Setting up of Rural Cooperatives</i>
1969	<i>Nationalization of 14 major Commercial Banks</i>
1975	<i>Setting up of Regional Rural Banks</i>
1990s	<i>Self Help Group</i>
2005	<i>RBI advised banks to open no frill accounts</i>
2006	<i>RBI allowed BC/ BF to act as agents of banks</i>
2010	<i>RBI allowed for - profit companies (excluding NBFC) to act as Business Correspondent</i>
2011	<i>National Payment Corporation of India (NPCI) launched Interbank Mobile Payment System (IMPS)</i>

Review of Literature:

Various studies have been conducted on Financial Inclusion in India. Below mentioned are few glimpses per literature available:

Ramkumar V, (2007) suggested that to make Business Correspondent model more viable and scalable it required ICT facilities which should be further supported by financially sound, experienced and reputed expertise manpower.

As per the Planning Commission report (2009), Financial Inclusion refers to universal access to a wide range of financial services at a reasonable cost; these include not only banking products but also other financial services such as insurance and equity products.

Srijanani D, (2012), in his study concluded that there has been tremendous growth in banking industry by including the underprivileged sections of the society for making significant improvements in the areas relating to financial viability, profitability and competitiveness.

Chakrabarty, (2012) appreciated that introduction of advanced technology in banking sector along with Governments developmental programmes and the consciousness that the poor are bankable will lead to better results which will lead to overall financial inclusion and economic development of the country.

So, following the above mentioned literature, the present paper focuses on how merger of ICT and Financial inclusion aims towards attaining inclusive growth in context of India.

Research Objectives & Methodology:**Objectives of Research:**

The paper aims:

1. To highlight the essence & barriers of Financial Inclusion in India
2. To present the initiatives taken by Government of India & Reserve Bank of India to facilitate Financial Inclusion
3. To analyze ICT based initiatives adopted to augment Financial Inclusion in India & suggest suitable strategies that will further aid Financial Inclusion to reach extremes of Indian Economy.

Research Methodology

In order to achieve the research objectives, descriptive research design is adopted. Descriptive research is based on secondary sources of data wherein no data is manipulated. The data has been collected from various journals, research papers, reports, books, E-journal, etc. With the help of the data gathered the role of ICT in financial inclusion in India has been analyzed.

Essence of Financial Inclusion:

Financial inclusion includes transferring banking services at an affordable cost i.e. ‘no frills’ accounts to the gigantic sections of disadvantaged and low income group. Prime objective of any public policy with reference to availability of banking service is to serve entire population without discrimination. So, basically Financial Inclusion aims at bringing larger section of society particularly low-income people who are unable to access to both formal and semi-formal financial services into banking realm. Financial inclusion aims at developing habit of savings among large segment of rural population which ultimately will be reflected in the process of economic development as the resource base of a financial system will broaden up. As per the statistical data available in India 38% of bank branches in rural areas are providing coverage to 40% of the country’s population. Although the figure of bank branches has gone up from 8,700 at the time of nationalization to 85,300; numbers of rural branches are only 32,000. This illustrates that the number of untapped people is huge and extension of banking services in rural areas has ample scope.

Barriers to Financial Inclusion

The term “excluded section” refers to people who are not having access to the financial services. Excluded section of the economy generally consists of landless labors, urban slum dwellers, migrants, socially excluded groups, participants of unorganized sectors, marginal farmers & ethnic minorities. Some of the factors that contribute to financial exclusion are non-availability of bank branches in nearby areas, gender concerns, age issue, legal identity, inadequate literacy, lack of wakefulness among public of banking, psychological and cultural barriers, bank charges, terms and conditions, income level, occupation, appeal of the product etc.

Financial Inclusion Model adopted by the banks

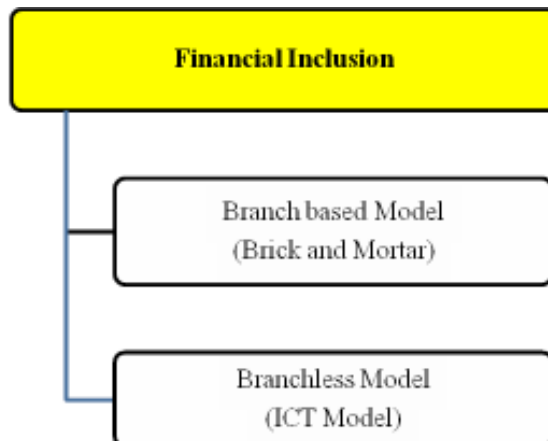


Figure 1: Financial Inclusion Model adopted by banks

How Branchless model (ICT Based) can be more useful than branch based (Brick & Mortar Model)?

- It will be staggering task to cover entire population if bricks and mortar model is being used.
- Building up offices to reach customers at all extremes is neither feasible nor possible (Costly & Time consuming).
- Physical remoteness is also one of the hurdles in effective financial inclusion strategy.
- High Cost of maintaining setup is also associated.

Due to the above mentioned obstacles there is a need for efficient, transparent & effective mechanism for successful financial inclusion. Information & communication technology (ICT) could play a vital role in empowering and assisting banking sector's business initiatives and service delivery thereby bringing a sea change in its approach to tackle the above mentioned challenges. ICT will be secure, reliable, supportive, cost effective & above all empowering the individual.

Initiatives taken by the Government of India, RBI and Banks to facilitate Financial Inclusion

1. Reserve Bank of India has implemented a bank-led model for achieving financial inclusion and detached all regulatory holdups to enable better financial inclusion in the economy. Aimed at achieving the targeted goals, RBI has generated favorable regulatory atmosphere and extended institutional support to banks for fastening their financial inclusion efforts.
2. All banks are allowed to open *Basic Saving Bank Deposit (BSBD)* accounts with minimum common facilities like zero balance, deposit and withdrawal of cash at bank branch and ATMs, receipt/ credit of money through electronic payment channels, and facility of providing ATM card.
3. *Relaxed and simplified KYC norms* are developed to aid easy opening of bank accounts, especially for small accounts where balances are not exceeding Rs. 50,000 and aggregate credits in the accounts are not exceeding Rs. one lakh a year. Banks are also directed not to insist on introduction for opening bank accounts of customers rather they (banks) are allowed to use Aadhar Card as a proof of both identity and address.
4. *Simplified Branch Authorization Policy* has been developed to address the issue of uneven spread of bank branches, domestic Scheduled Commercial Banks (SCB's) are permitted to freely open branches in Tier 2 to Tier 6 centers which have population less than 1 lakh under general permission, subject to reporting. In North-Eastern States domestic SCBs can open branches without having any permission from RBI. With the aim of further liberalizing general permission has been accorded to domestic scheduled commercial banks (other than RRBs) for opening branches in Tier 1 centers,

5. *It has been mandated to SCB's to open Branches in Un-banked Villages* and allocate minimum 25% of the total number of branches to be opened during the year in un-banked (Tier 5 and Tier 6) rural centers.
6. Banks have been guided to open intermediate structures between the present base branch and Business Correspondents locations so that it results in effective cash management, documentation, handling of customer grievances and close supervision of BC operations, This branch may be a low cost simple brick and mortar structure consisting of minimum infrastructure facilities such as core banking solution terminal linked to a pass book printer and a safe for retaining cash for operating larger customer transactions.
7. Public and private sector banks had been directed to submit its three year Financial Inclusion Plan (FIP) starting from April 2010. These policies aim at keeping self-set targets in respect of new rural brick and mortar branches, BCs employed, coverage of un-banked villages with population above 2000 and as well as below 2000, KCCs, GCCs issued and others. On a monthly basis RBI has been monitoring these plans.
8. Banks have been instructed that their *FIPs should be penetrated down up-to the branch level*. This would ensure the participation of all stakeholders in the financial inclusion efforts.
9. Revised guidelines on *Financial Literacy Centers (FLCs)* were framed in *June 2012* which recommended that Financial Literacy Centers and all the rural branches of SCB's should conduct, at least one outdoor Financial Literacy Camp in a month, to scale up financial inclusion through provision of two essentials i.e. 'Financial Literacy' and easy 'Financial Access'. For this purpose, 718 FLCs have been set up by end of March 2013. 2.2 million people have been educated through awareness camps / choupals, seminars and lectures during April 2012 to March 2013.

ICT based initiatives to augment Financial Inclusion reach

RBI has encouraged banks to harness the power of technology for maximizing reach and augmenting feasibility. ICT has thus empowered even uneducated customers to operate bank accounts using biometrics, rendering the signature redundant. BCs carry handheld ICT devices at customer's doorstep so that they may transact easily. Since security is ensured technology-based banking infuses assurance in the minds of the customers.

1. ***Business Correspondent Model (BC)*** - In 2006 RBI introduced a policy for Under Banked or Unbanked, allowing banks to provide doorstep services to people through the use of third party services. This model was referred to as "Business Correspondents/Banking correspondents" in short BC's. BC is a representative authorized to offer services such as cash transactions where the lender does not have a branch. Primary role of BC is to oversee the proper development and functioning of indirect banking channels. These business correspondents have to follow RBI regulations and would have direct contact with one or more financial institutions. These BC's will receive

commission from the bank for registration of clients, transactions, deposits etc.

2. **Mobile Banking** - The revolution via mobile banking is transforming the world into a banking revolution. Today, the number of Mobiles in India is more than 60 Crore and this number is expected to reach 70 crore by next year. The reach of mobile to the remote village and its usage by the common man has become order of the day and it is estimated that around 1/4th of mobile users are residing in villages/small towns. The coverage of mobile phones and the use of such instruments by all section of the population can be exploited for extending financial services to the excluded populations. It enables the subscribers to manage their financial transactions (funds transfer) independent of place and time. The subscriber can approach to a retailer of mobile network for withdrawal/deposit of money and the transaction takes place using SMS messages. Recently, many banks have introduced mPAY to avail the benefits of financial transactions using mobile viz., funds transfer from one account to another account of the same bank.

Recently, National Payment Corporation of India (NPCI) has initiated steps to introduce Inter-Bank Mobile Payment Service (IMPS) which allows funds transfer across the banks to the credit of beneficiary accounts within India using mobile phones. It enables the banks to extend financial services independent of Agents or Business Correspondents. RBI is keen to implement this model by all banks by 31st March 2011 and allow transfer of funds up to 50000/- free of cost. South Africa and Philippines countries have implemented this model successfully and providing banking services to the remote rural areas.

3. **Electronic Bank Transfers** - ICT banking also facilitates beneficiaries by directly transferring social security benefits electronically. This decreases dependence on cash, thereby lowering transaction cost and minimizing chances of fraud by unscrupulous middlemen.
4. **Micro ATMs**: Due to high investment and low transaction volume banks are less interested to install ATMs at Rural/Semi Urban centers. In order to make the ATMs available at these centers, there is a need to deploy low cost ATMs with minimum features such as cash withdrawal and balance enquiry. Also the location could be targeted at places where rural folk pays frequent visits such as petrol pumps, mandis etc. It is convenient and cost effective compared to paying visit to the bank branch located at nearby center.
5. **Biometric ATMs** - The infiltration of ATMs into Rural and Semi-urban areas may not serve the envisaged purpose unless it is put to use by illiterates/semi-literates whose presence is predominant in rural areas. The existing ATMs are not being used optimally by rural folk on account of PIN and Password related issues. Introduction of Biometric ATMs enables the illiterate and semi-literate customers to avail ATM facilities on par with literate customers. Under this, Thumb impression of the cardholder will be scanned and transfer the same to central server as one time measure. ATM dispenses cash and other services only after verifying the thumb impression

of the cardholder with that of finger print available with the bank's server. Bio-metric ATMs are going to play an important role in the remote rural areas in the ensuing years.

6. **Movable ATMs** - These are intending to provide ATM facility to the rural people as well as other customers. A van would move to the planned places which will also be reachable to Biometric card holders. People can also open accounts during the van visits to these rural areas. A probable good option could be if these are used weekly mandis/markets effectively.
7. **Smart Cards**: State-owned Governments are also considering at the possibility of pension payment disbursement under Rural Employment Generation Program using through smart cards linked bank accounts. Smart card provides biometric authentication, which would help in reducing frauds and ensure identity of customers. Such cards can also hold all transaction details on the card. In order to popularize smart cards, all agriculture short term loans and payment of social security schemes are to be dispensed through Smart Cards.
8. **Aadhaar Project** - Unique Identification Authority of India (UIDAI) is established by Government of India with an objective to issue a unique identification number known as Aadhaar to all Indian residents with intent to eliminate duplicate/fake identities and to put hassle-free, cost effective verification/authentication system in place thereby to save considerable resources of various User Departments as well as beneficiaries at large. UID project gives a big push to the government's financial inclusion agenda and also provides the strong foundation to deliver better services and paves the way to improve the operational efficiency of the system. All Public Sector Banks are acting as Registrars to undertake enrollment and authenticated services to their clientele and also other residents using technology embedded outsourced model.

Findings:

1. All the above initiatives warrant the banks to invest substantial amount on infrastructure besides periodic spending. It is the high intermediary cost of the banks which stumbles as a blockage to reach the poor that need to be addressed. Hence, it is necessary for the banks to search for the following alternate models to extend Branchless Banking across rural India.
2. High Cost of Operating and Small Business Volume are other key restrictions that banks face in outspreading banking services specifically in distant and isolated areas by Branch Banking Model. Although RBI has permitted the banks to use services of Business Facilitators and Business Correspondents to address this problem so that banking to un-banked areas takes place in a most cost effective manner.

3. Banks have begun the process of selection of BCs, which in turn will create substantial employment and business opportunities for banks to improve retail accounts. The faster banks insert BCs the better it would be in making the project a grand success.

Suggestions:

To extend banking facilities to the extremes of Rural India so that the poor can be brought under the shadow of banking sector usage of technology in banking sector has to be developed fast enough. Government should implement various instant measures in a more effective manner. Few of the strategies that would aid financial inclusion with the support of ICT are:

1. Linking with Post Offices

Up gradation of Post Offices in terms of connectivity with all users is in full speed and now they are well connected. Post offices can be used to extend banking services in unbanked areas of the country. Bio-metric smart cards may be installed at post offices and customers would produce the Smart Card at post office for withdrawal or remitting cash.

2. Computerized Seva Centers

Computerized Seva centers can be developed by entering into agreement with the state governments for sharing of resources. This will help customers to initiate financial transactions both cash deposits and withdrawals at these centers. It will also be updated at Banks' server on a routine basis.

3. Television-Banking

Television in almost all households is one of the most cost effective methods to publicize information across the nation. This can be explored by banks for using cable network to extend its services to distant rural areas which is actually a non-branch service delivery channel.

Conclusion:

Significant progress towards financial inclusion has been made through various initiatives taken by the Government, RBI, Banks and ICT has been the key driver in implementing these initiatives. Various models have been tested for financial inclusion, however BC model has emerged out to be the most effective model for the financial inclusion so far and has managed to reduce the transaction costs and tackle the barriers of financial inclusion. It is important that banks should start addressing the issue of financial illiteracy by organizing campaigns, addressing this issue would help in greatly reducing the financial exclusion. Banks rather than just offering liquidity management services should also offer other innovative products which would have customer value proposition. Banks should see financial inclusion as an opportunity rather than just a regulatory compulsion or a social initiative because today's poor is tomorrow's middle

class. It is for the banks to convert what they see as an obligation into an exciting opportunity and aggressively pursue it. Banks should create out of box strategies and employ new technologies to enhance the performance of the existing approach. Another model which will immensely help in financial inclusion is mobile banking which is still in its nascent stage. With an expected rural penetration of 100 percent by 2020, mobile banking along with an innovated BC model will give magnanimous outreach to the banks and also help them in providing cost effective products and services. Hence, ICT has a greater role to play in financial inclusion

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