

# Fostering sustainable financial inclusion through technology in India

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## ABSTRACT

*In India, the Banking industry has grown both horizontally and vertically but the branch penetration in rural areas has not kept pace with the rising demand and the need for accessible financial services. Even after decades of bank nationalization, whose rationale was to shift the focus from class banking to mass banking, we still find usurious money lenders in rural areas and urban slums continuing to exploit the poor. After economic reforms of 1991, the country can ill-afford not to include the poor in the growth paradigm. Financial Inclusion of the poor will help in bringing them to the mainstream of growth and would also provide Financial Institutions an opportunity to be partners in inclusive growth. The efforts to include the financially excluded segments of the society into formal financial system in India are not new. The concept was first mooted by the Reserve Bank of India in 2005 and Branchless Banking through Banking Agents called Bank Mitra (Business Correspondent) was started in the year 2006. In the year 2011, the Government of India gave a serious push to the programme by undertaking the "swabhimaan" campaign to cover over 74,000 villages, with population more than 2,000 (as per 2001 census), with banking facilities. the aim of the study is to understand the role of technology in financial inclusion in India and to understand the Indian bank status in financial inclusion.*

**Keywords:** financial inclusion, technology, sustainable, bank status, Reserve Bank of India

## INTRODUCTION

Financial Inclusion denotes delivery of financial services at an affordable cost to the vast sections of the disadvantaged and low-income groups. The various financial services included credit, savings, insurance and payments and remittance facilities. The objective of financial inclusion is to extend the scope of activities of the organized financial system to include within its ambit people with low incomes. Through graduated credit, the attempt must be to lift the poor from one level to another so that they come out of poverty. "It is a known fact that in India, while one segment of the population has access to assortment of banking services encompassing regular banking facilities & portfolio counselling, the other segment of underprivileged and lower income group is totally deprived of even basic financial services. Exclusion of large segments of the society from financial services affects the overall economic growth of a country. It is for this reason that Financial Inclusion is a global concern.

Experiences in India and abroad has shown that traditional Banks have struggled to reach the poor with financial services. Recognizing this fact, many countries such as Brazil, Indonesia, Malaysia, Mexico etc have allowed non-banks to offer payments, deposits and cash-in/cash-out services. Similarly, in India, enabling an inclusive competitive landscape should be a top priority.

## Objectives of the study

- To study the role of technology in financial inclusion in India
- To understand the Indian bank status in financial inclusion

## Research methodology

The study is exploratory in nature. The data from government websites like economic survey, ministry of finance, economic review. In addition the study uses article, journals and newspaper for reference.

## ROLE OF TECHNOLOGY IN FINANCIAL INCLUSION

Technology and financial inclusion are the popular coinage in banking parlance in the country. Main hurdle in financial inclusion so far has been large numbers and low volumes, translating into unaffordable costs. The only way to bring down the cost to an affordable level and to improve the reach to the farthest / remotest corner of the country is by effectively leveraging the Technology. In order to make available the banking facilities across the length and breadth of the country, latest technological products like e-KYC, IMPS, AEPS, mobile banking etc. have the potential to emerge as a game changer in terms of costs, convenience, and speed of reach.

Reserve Bank has, thus, been actively involved in harnessing technology for the development of the Indian banking sector over the years. A major technological development in banking sector is the adoption

of the Core Banking Solutions (CBS). CBS is a step towards enhancing customer convenience through, Anywhere, Anytime Banking. It is important to leverage this technological advancement to look at areas beyond CBS that can help in not just delivering quality and efficient services to customers but also generating and managing information effectively. The adoption of CBS led to various technological products like NEFT, RTGS, mobile banking, Internet Banking, ATMs, etc. Some of the Technological based products have made significant changes in the banking.

Some of the major products are :

**(i) Electronically Know Your Customer (e-KYC) :**

In the year 2013, RBI permitted e-KYC as a valid process for KYC verification under Prevention of money laundering (Maintenance of Records) Rules, 2005. In order to reduce the risk of identity fraud, documentary forgery and have paperless KYC verification, UIDAI has launched its e- KYC services. Under the e-KYC process under the explicit consent of the customer and after his or her biometric authentication from UIDAI data base individual basic data comprising name, age, gender and photograph can be shared electronically with Authorised Users like Banks, which is a valid process for KYC. The aforesaid process is paperless and has made the account opening of customers having Aadhaar number much easier. Almost all the banks have either adopted this process or in the advance stage of putting the system live. The e-KYC process would be used in large scale for opening accounts in future.

**(ii) Transaction through Mobile Banking:**

The basic financial transactions from the Bank accounts can be executed through a mobile based PIN system using "Mobile Banking". Mobile banking through mobile wallet was also launched in 2012. Mobile telephony and prepaid wallets would also be utilized for coverage of households under the Financial Inclusion campaign. 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 a retailer of mobile network for withdrawal/deposit of money and the transaction takes place using SMS messages. The Mobile Banking services offers Various banking services like Funds Transfer, Immediate Payment Services, Enquiry Services (Balance enquiry/ Mini statement), Demat Account Services, Requests for Cheque Book, Bill Payments, etc. may be carried out through mobile banking. There are transaction limits for mobile banking and these services are free of charge. The mobile banking services are also available over SMS.

**(iii) Immediate Payment System (IMPS):**

Immediate Payment Service (IMPS) was launched by NPCI on 22 November, 2010. It offers an instant, 24X7, interbank electronic fund transfer service through mobile phones as well as internet banking & ATMs.

**(iv) Micro-ATMs:**

Micro-ATMs are biometric authentication enabled hand-held device. In order to make the ATMs viable at rural / semi-urban centers, low cost Micro-ATMs would be deployed at each of the Bank Mitra location. This device will be based on a mobile phone connection and would be made available to every Bank Mitra / Business Correspondent. Customers would have to get their identity authenticated and withdraw or put money into their bank accounts. This money will come from the cash drawer of the Bank Mitra / Business Correspondent. Essentially, Bank Mitra will act as bank for the customers and all they need to do is verify the authenticity of customer using customer's UID. The basic transaction types to be supported by micro ATM are Deposit, Withdrawal, Fund transfer and Balance enquiry. Micro-ATM offers one of the most promising options for providing financial services to the unbanked population. Micro-ATMs would have various options of authentication like biometric, PIN based etc. and it would also be used as mobile ATMs to enable transactions near the door step of the customers. The Micro-ATMs offer an online interoperable, low-cost payments platform to everyone in the country.

**Expansion of ATMs**

RBI in terms of para 4 of their Master Circular issued on July 1, 2014 to all Commercial Banks and para 7 of a separate circular to RRBs has permitted Scheduled Commercial Banks and RRBs to install off-site ATMs/ Mobile ATMs at the locations of their choice, as per laid down norms without prior permission of RBI, subject to reporting.

Due to these relaxed norms, number of ATMs has increased considerably as per details given hereunder:

**Table 1**  
**Number of ATMs of Public Sector Banks (PSBs)**

As on	Off-site ATMs	On-site ATMs	Total ATMs
31.03.2011*	20032	30201	50233
31.03.2012	24181	34012	58193
31.03.2013	29411	40241	69652
31.03.2014	44504	65920	110424
31.03.2015	58763	69902	128665
30.09.2015	60882	75195	136077

\* The data pertains to ATMs deployed as on April 30, 2011 Source: RBI

**Table 2**  
**Number of ATMs of Scheduled Commercial Banks (SCBs)**

As on	Off-site ATMs	On-site ATMs	Total ATMs
31.03.2011*	34377	41268	75645
31.03.2012	48141	47545	95686
31.03.2013	58254	55760	114014
31.03.2014	76676	83379	160055
31.03.2015	92191	89061	181252
30.09.2015	94541	95303	189844

\* The data pertains to ATMs deployed as on April 30, 2011 Source: RBI

**(iv) National Unified USSD Platform (NUUP):**

Customers can avail USSD solution through any mobile phone on GSM network, irrespective of make and model of the phone. This does not require any application to be downloaded on customer's mobile phone and need for GPRS connectivity. USSD is user friendly. so it is easy to communicate and educate customers as well. USSD alleviates the need for application download and is more secure than SMS channel. Banking customers can use this service by dialing \*99#, a "Common number across all Telecom Service Providers, (TSPs) on their mobile and transact through an interactive menu displayed on the mobile screen.

**(v) RuPay Debit cards:**

RuPay is a new card payment scheme launched by the National Payments Corporation of India (NPCI), to offer a domestic, open-loop, multilateral system which will allow all Indian banks and financial institutions in India to participate in electronic payments. "RuPay", the word itself has a sense of nationality in it. "RuPay" is the coinage of two terms Rupee and Payment. RuPay Cards address the needs of Indian consumers, merchants and banks.

The benefits of RuPay debit card are the flexibility of the product platform, high levels of acceptance and the strength of the RuPay brand-all of which will contribute to an increased product experience. The main features are as under:

- Lower cost and affordability
- Customized product offering
- Protection of information related to Indian consumers
- Provides electronic product options to untapped/unexplored consumer segment

*RuPay* symbolizes the capabilities of banking industry in India to build a card payment network at much lower and affordable costs to the Indian banks so that dependency on international card scheme is minimized. This is in line with many of the large emerging nations like China which have their own domestic card payment system. Government of India has directed banks to issue Debit cards to all KCC and DBT beneficiaries and that every new account holder should be issued a debit card. A low cost option such as *RuPay* will help in achieving this objective and consequently help in fulfilling the objective of financial inclusion. The *RuPay* Card works on ATM, Point of Sale terminals & online purchases and is therefore not only at par with any other card scheme in the world but also provides the customers with the flexibility of payment options.

**(vi) Aadhaar Enabled Payment System (AEPS):**

AEPS is a banking product which allows online inter operable financial inclusion transaction at PoS (Micro-ATM) or Kiosk Banking through the Business Correspondent of any bank using the Aadhaar authentication. Presently, four Aadhaar enabled basic types of banking transactions are available i.e. (i) Balance Enquiry, (ii) Cash Withdrawal, (iii) Cash Deposit & (iv) Aadhaar to Aadhaar Funds Transfer. For undertaking AEPS transaction by customer, two inputs i.e. IIN (Identifying the Bank to which the customer is associated) & Aadhaar Number are required.

**(vii) Aadhaar Payments Bridge System (APBS):**

The Aadhaar Payments Bridge System enables the transfer of payments from Government and Government Institutions to Aadhaar-enabled accounts of beneficiaries at banks and post offices. Every Government Department or Institution that sends EBT and DBT/DBTL payments to individuals simply needs to prepare a file containing the Aadhaar number and amount and submit it to their accredited bank. The accredited bank then processes the file through an interoperable Aadhaar Payments bridge and funds are credited into the accounts of beneficiaries. Upon receiving incoming funds, the beneficiary's bank will notify him or her through an SMS or any other communication channel that is established between the bank and the customer.

**(viii) Pradhan Mantri Jan-Dhan Yojana (PMJDY)**

With a view to increasing banking penetration and promoting financial inclusion and with the main objective of covering all households with at least one bank account per household across the country, a National Mission on Financial Inclusion named as *Pradhan Mantri Jan Dhan Yojana* (PMJDY) was announced by Hon'ble Prime Minister in his Independence Day Speech on 15<sup>th</sup> August, 2014. The scheme was formally launched on 28<sup>th</sup> August, 2014 at National level by Hon'ble Prime Minister.

**Achievements under PMJDY**

- As on 17.02.2016 –
  - 20.87 crore accounts have been opened under PMJDY out of which 12.79 crore accounts are in rural areas and 8.08 crore in urban areas.
  - Deposits of Rs. 32730.72 crores has been mobilized.
  - 17.36 crore RuPay Debit cards have been issued under PMJDY.
  - Aadhaar seeding has been done in 9.04 crore PMJDY accounts.
  - Zero balance accounts has been reduced to 29.03%.
- Household Coverage: 99.99% households out of the 21.22 crore households surveyed have been covered under PMJDY. Efforts are being made to achieve 100% coverage of households particularly in the State of J&K and LWE affected districts.
- As on 19.02.2016, out of total requirement of 1,26,740 fixed location Bank Mitras in Sub Service Areas (SSAs), 1,25,956 Bank Mitras have been deployed by banks.
- Overdraft (OD) in PMJDY accounts: As on 19.02.2016, 31.61 lac accounts have been sanctioned OD facility of which 15.75 lac account-holders have availed this facility involving an amount of Rs. 203.16 crore.
- Insurance Claims settled
- As on 19.02.2016, out of 858 claims lodged, 832 claims have been disposed off under accidental insurance cover of Rs. 1 lakh under RuPay debit card.
- As on 19.02.2016, out of 2298 claim lodged, 2273 claims have been disposed off under Life Cover of Rs.30,000/- to those beneficiaries who opened their accounts for the first time from 15.08.2014 to 31.01.2015.

**Financial Inclusion in Indian banks**

Financial Inclusion is an important priority of the Government. The objective of Financial Inclusion is to extend financial services to the large hitherto un-served population of the country to unlock its growth potential. To extend the reach of banking to those outside the formal banking system, Government and Reserve Bank of India (RBI) are taking various initiatives from time to time. The following table shows the Expansion of Bank Branch network in terms of Public Sector Banks, private sector banks and in scheduled banks.

**Expansion of Bank Branch network****(i) Number of functioning branches of Public Sector Banks - Population Group wise:**

	RURAL	SEMI-URBAN	URBAN	METROPOLITAN	TOTAL
31.03.2011	20,373	16,388	13,416	12,757	62,934
31.03.2012	22,095	18,079	14,276	13,399	67,849
31.03.2013	23,955	19,818	15,001	13,965	72,739
31.03.2014	27,258	22,134	16,262	14,821	80,475
31.03.2015	29,377	23,746	17,335	15,525	85,983
30.09.2015	29,754	24,087	17,563	15,689	87,093

Source : RBI

**(ii) Number of branches of Scheduled Commercial Banks (SCBs) - Population Group wise:**

	RURAL	SEMI-URBAN	URBAN	METROPOLITAN	TOTAL
31.03.2011	33,517	23,366	17,583	16,427	90,893
31.03.2012	36,153	26,120	18,811	17,465	98,549
31.03.2013	39,425	28,853	19,851	18,305	1,06,434
31.03.2014	44,865	31,884	21,445	19,504	1,17,698
31.03.2015	48,207	34,145	22,949	20,760	1,26,061
30.09.2015	48,958	34,883	23,423	21,133	1,28,397

Source: RBI

**(iii) Number of Functioning Branches as on 30.09.2015 - Bank Group and Population Group wise**

	RURAL	SEMI-URBAN	URBAN	METROPOLITAN	TOTAL
SBI and its Associates	7,988	6,700	4,341	3,689	22,718
Nationalised Banks	21,355	16,830	12,714	11,589	62,488
Other PSBs	411	557	508	411	1,887
Old Private Sector Banks	1,417	2,599	1,469	1,087	6,572
New Private Sector Banks	3,083	4,290	3,218	3,869	14,460
Foreign Banks	8	12	57	247	324
Regional Rural Banks	14,696	3,895	1,116	241	19,948
<b>All India</b>	<b>48,958</b>	<b>34,883</b>	<b>23,423</b>	<b>21,133</b>	<b>1,28,397</b>

Source: RBI

**CONCLUSION**

Financial inclusion is the process of ensuring access to appropriate financial products and services needed by all the sections of the society in general and vulnerable groups at an affordable cost in a fair and transparent manner by the main stream institutional players. "Pradhan Mantri Jan-Dhan Yojana (PMJDY)" which is a National Mission for Financial Inclusion.. This National Mission on Financial Inclusion has an ambitious objective of covering all households in the country with banking facilities and having a bank account for each household. With a bank account, every household would gain access to banking and credit facilities. This will enable them to come out of the grip of moneylenders, manage to keep away from financial crisis caused by emergent needs, and most importantly, benefit from a range of financial products like every account holder gets a RuPay debit card with a ` 1,00,000/- accident cover. Further, they will be covered by insurance and pension products. Public sector banks give more popularity and access to PMJDY Schemes than private and New generation Banks. Total financial inclusion is only possible through the joint hand of financial institution and its customers. so it is essential to initiates both private and new generation

banks to actively participated in the mainstream of financial inclusion through PMJDY mission, and it is needed for a financial literacy program to give customer awareness about the various services ( both Financial as well as technical services).

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