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NEED OF TECHNOLOGY IN FINANCIAL INCLUSION**Assist. Prof. Vinod Hanumant Awaghade**

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Abstract

The Indian banking sector today is stressing toward Financial Inclusion. The main reason motive is to include large population of India in the financial system of nation. This is a new avenue and a large market for banks. Where Information Technology will play an important role in reducing cost of providing banking services, particularly in the rural and the financially excluded population. The role of Information Technology can be realized from the fact that it has greater population penetration and its ability to serve at remote location at low cost which is essential requirement for Financial Inclusion. Efficient payment systems bring substantial benefits to the economy. India has made rapid strides in adoption and leveraging of technology, especially in financial sector. A couple of decades ago, banking and payment systems in India were driven by manual processes – there were clearing houses at district levels where bankers would sit across tables and conduct the cheque clearing operations. With the advent of Core Banking Solutions (CBS) and other innovative measures which leveraged technology, clearing operations have been computerized and a wide array of products, such as MICR (magnetic ink character recognition) based clearing and speed clearing, have been introduced. Core Banking Solution is networking of branches by which customer becomes a bank's customer. It enables to operate the bank account from other branch. It leads to anywhere and AnyTime banking. This paper assesses progress in technical reforms especially focusing on financial inclusion and analyze the new challenges that confront India's policymakers and financial regulators.

Introduction

Technology and financial inclusion are the popular coinage in banking parleys in the country. While technological up-gradation and mobile banking are catching up so fast, financial inclusion is tardy. Financial inclusion is a major agenda for the Reserve Bank of India (RBI). Without financial inclusion, banks cannot reach the un-banked. It is also a major step towards increasing savings and achieving balanced growth. The reach the country is having with technological progress mobile banking has the potential to emerge as a game changer in terms of costs, convenience, and speed of reach. Business models of banks, telecom operators and other stakeholders need to converge. The banking system has grown enormously in the last five years keeping pace with and in some cases leading the country's remarkable economic growth. Simultaneously, the banking system has improved its strength, efficiency and resilience. There have also been significant improvements in the payments and settlements system and electronic payments and RTGS is now much more in use. IT has played a major role in these achievements. Today banks have centralized operations, more and more banks and branches are moving to CBS, network based computing, new delivery channels such as networked ATMs, internet banking, smart card based products, mobile access etc. and are using IT for customer relationship management, customer transaction pattern analysis credit profiling and risk management. Despite of this, large number of people is excluded from Financial Inclusion due to some reasons like illiteracy of financial information, poverty, and lack of confidence to use of technology provided by the government, risk in digital or online transactions & current situations of demonetization.

Meaning:**What is Financial Inclusion?**

By financial inclusion, we mean the delivery of financial services, including banking services and credit, at an affordable cost to the vast sections of disadvantaged and low-income groups who tend to be excluded. The various financial services include access to savings, loans, insurance, payments and remittance facilities offered by the formal financial system. Among the key financial services that are of great relevance here are risk management or risk mitigation services vis-à-vis economic shocks. Such shocks may be an income shock due to adverse weather conditions or natural disasters, or an expenditure shock due to health emergencies or accidents, leading to a high level of unexpected expenditure. This aspect of financial inclusion is of vital importance in providing economic security to individuals and families. RBI defines **Financial Inclusion** as "a process of ensuring access to appropriate financial products and services needed by all sections of the society in general and vulnerable groups such as weaker sections and low income groups in particular, at an affordable cost in a fair and transparent manner by regulated mainstream institutional players". Therefore, the objective of Financial Inclusion is to extend financial services to the large hitherto unreserved population of the country to unlock its growth potential. In addition, it strives to achieve more inclusive growth by making financing available to the poor in particular. Thus, keeping in view of the interests of the poor people, the Government of India has taken a number of measures so that the underprivileged sections of the society can reap the benefits of the financial services.

Objectives Of The Study

1. To study present scenario of financial inclusion in India.
2. To understand the need and importance of technology in Financial Inclusion.
3. To identify various aspects of Technology and their role in Financial Inclusion
4. Promotion of Technology in Financial Inclusion.

Research Methodology

The present study is descriptive in nature. The data used for the study is secondary in nature and has been collected from RBI bulletin, annual reports of RBI and Ministry of Finance, GoI, Report on trend and progress of banking in India, various reputed journals, newspapers and websites of RBI, NABARD (National Bank for Agricultural and Rural Development) and Ministry of Finance, Government of India.

The need of Financial Inclusion**Why Financial Inclusion?**

Financial inclusion broadens the resource base of the financial system by developing a culture of savings among large segment of rural population and plays its own role in the process of economic development. Further, by bringing low income groups within the perimeter of formal banking sector, financial inclusion protects their financial wealth and other resources in exigent circumstances. Financial inclusion also mitigates the exploitation of vulnerable sections by the usurious money lenders by facilitating easy access to formal credit. The need of Financial Inclusion arises in developing countries due to its role in Economic Development by reducing poverty and providing for equitable growth. Due to high cost of traditional banking system, the bottom of pyramid section of Indian economy remains as the unbanked potential. If unbanked potential is tapped with Financial Inclusion, over the period of time, then this contribution will lead to snow ball effect and leads to Economic growth. As household, even the deprived of weaker sections of society, access to financial services for Contingency planning, credit, wealth creation but at the same time expects from the financial system that it should be easy of access, provide security and safety of deposits, low

transaction costs, convenient operating time, minimum paper work, ability to transact easily effect frequent deposits, avail quick and easy access to credit and other products including remittances suitable to their income streams and consumption patterns'. By providing, suitable and cost effective financial products to low income families will transform informal unbanked sector into the formal financial sector. Due to lack of Financial Literacy and practically no access to financial services, the substantial weaker section of society is unaware of Financial services and has to be depended upon informal sectors like borrowing from friends, family or usurious moneylenders to meet their needs like illness, property damage or death of the primary breadwinner. The existing Financial system requires to be redesigned so as to suit the requirements by taking into account their seasonal inflow of income from agricultural operations, migration from one place to another, seasonal and irregular work availability and income. To provide such financial system which is more responsive to needs of vulnerable group of the society. The need of growing Indian economy is to curb challenges like poverty, unemployment and to bring Financial Prosperity to weaker section of society. The RBI Governor has considered 'Financial inclusion' is one of the key pillar in Economic Development reforms and taken initiative to achieve the goal of financial inclusion in effective manner. In present scenario, there is the gap in achieving the goal of financial inclusion because of Consumer Protection and Consumer literacy. In achieving the goal of Financial Inclusion, the Compatible formal financial system is required to build up a strong supply response. The approach of the study is data collected from secondary sources in order to access the present position of financial Inclusion in India.

Technology Is A Game Changer

Every bank in our study is innovating in delivery channels and other uses of technology. In order to increase convenience and encourage usage, banks are establishing a wide range of customer points of contact, including in rural areas, such as ATMs, micro-ATMs, kiosks, banking correspondents and their agents, mobile banking, and e-money accounts. They are working to increase the acceptance of digital payments by merchants. In India, and increasingly in other countries, customers are entering financial systems through the Internet. The more customer touch points, the more valuable the service to the customer. Data analytics, digital IDs, and back-office systems are important pieces of the financial inclusion puzzle—but it is the ubiquity of the cell & smart phone that is making the greatest impact on financial inclusion today. After demonetization drive in November 2016, government is promoting more cashless transactions with the use of available technologies & launching new platforms like UPI App, BHIM App, Mobile Wallets & promoting Private companies like PayTM App, enabling POS transactions in remote areas for Inclusive Growth.

Digital Payments Are The Gateway.....But Financial Inclusion Goes Beyond Payments

For banks, today's technology revolution begins with payments. Almost all the banks we talked with described leading with payments as a core customer acquisition strategy. Examples include person-to-person (P2P) and people-to-business payments (P2B) such as e-commerce, merchant and ticket payments, bill payments, cell phone recharge, school fees, transportation, etc. Governments are kick-starting inclusion by making government-to-people (G2P) digital payments for social transfers, payroll, pensions, agricultural subsidies, government-subsidized loans, procurement, and unemployment benefits. This trend includes both standard bank accounts and, increasingly, e-money accounts provided by banks. Private sector employers—including some small businesses—are beginning to follow suit with direct payroll deposits. Many banks have a comprehensive vision of inclusive business that serves clients up and down the supply chain—especially important in rural areas. E-commerce is an enormous opportunity, as well. A widely practiced

strategy among banks engaged in financial inclusion is to gain a foothold through payments done via bank accounts and banks' e-money accounts with underbanked customers, and then build from that base. Banks are intensively using the transaction data generated by these payments to understand customer financial needs and cross-sell savings, credit, insurance, or pension products. While the building-on-payments strategy is well underway and accounts for significant new business, it remains in its early stages. Banks report infrastructure challenges around connectivity and, in some cases, power. Yet there are many opportunities still to develop, and the bank executives urged a much more aggressive timeline, as well as a much more comprehensive view of the various payments that can be made digitally. They also urged corporations, including retailers and consumer goods companies, to make and receive digital payments. Not all digital payments result in active accounts. Dormancy is a big issue, which banks believe is due in part to clients' lack of trust in agents and digital money and in part to their lack of experience with formal financial services. Governments and businesses that introduce digital payments, especially payroll and social transfers, can work alongside banks to help build financial capability and digital literacy. Banks can provide information to customers at teachable moments when they are making decisions about financial services, helping them to get over the hurdle of using an unfamiliar product. A related benefit of digital banking is its ability to support personal financial management, including mobile balance inquiries and information about customers' own spending behavior. State Bank of India customers can trigger a missed call to find out their balance and other account information. This kind of verification also helps create trust in digital financial products.

Digital IDs Are Key to Customer Acquisition

One of the developments facilitating the rise of payment-based accounts is digital identification. According to the World Bank's 2016 ID for Development (ID4D) Global Dataset, 1.5 billion people, or around 20 percent of the world's population, are unable to prove their identity. This lack of ID makes it hard or impossible for them to open a bank account and access financial services. Fortunately, many governments are now advancing ID schemes, such as biometric IDs (fingerprints, facial recognition, iris scans, etc.) and IDs with chips, and banks are using them to help open accounts remotely, make digital payments, and reduce the cost of compliance. Most banks are already using tiered KYC for identification (also mentioned as a simplified model), though with strict limitations on the size and number of transactions. Banks stressed remote account opening as one of the greatest opportunities for serving unbanked customers profitably—particularly facilitated by growing networks of banking agents—due to the lower service costs and the ability to reach customers in remote areas and those with mobility constraints. For instance, State Bank of India also relies on the "Aadhaar" ID system, a project of the Unique Identification Authority of India (UIDAI), that uses fingerprints and iris scans.

Promotion of Technology in Financial Inclusion

Some of the commonly promoted distribution technologies for financial inclusion in India include the following –

A. IT-enabled Kiosks for Financial Inclusion

1. IT-Kiosks are among the most common forms of delivering products for Financial Inclusion.
2. They are small & self-operated IT-enabled centres that provide the customers with banking features such as cheque or cash deposit, internet banking, non-cash ATM transaction and teller enquiries.
3. Kiosks are located in areas where the financial inclusion initiative is likely to lead to significant increase in transactions volume as well as the number of users.

B. Mobile phone based financial services

India had about 771.18 million mobile phone users as of January 2011. According to the Telecom Regulatory Authority of India (TRAI), p million new users subscribe to a mobile service every year. Mobile based financial services refers to a broad range of financial activities that consumers can access using their mobile phones. Mobile phone transactions include the use of network airtime or currencies for deposit, transfer of funds or credits, & payment of services. Mobile based banking services, mainly, fall under two categories :

1. **Mobile Banking(m-banking)** Since mobile technology has the potential to reach out to the large unbanked population in remote areas, mobile banking provides technology support for increasing outreach for Financial Inclusion.

2. **Mobile Payments(m-payments)** With the help of mobile payments, even a remotely located banking customer can conduct payment transaction via a mobile device without the help of an intermediary.

C. Automated Teller Machines(ATM) 1. Since ATMs are computerized telecommunication devices providing facilities for financial transactions in a public space without the need for a cashier, human clerk or bank teller – they rely on authorization of a financial transactions by the card issuer or other authorizing institution via a communication network.

2. Several new-technology ATM devices have been designed to improve financial services in rural & remote areas so that even the illiterate customers in unbanked areas can avail ATM facilities. They include a.

Biometric ATM

□ Enables the illiterate & semi-illiterate customers to avail ATM facilities.

□ Eliminates the need for pin numbers; thumb impression of the cardholders is scanned & stored for authentication – users scan their thumb to access their account through the ATM.

b. Mobile ATM

□ Provides ATM services on a van, the van moves to pre-determined places providing facilities such as opening of accounts & handling enquiries; it helps in providing ATM facilities to customers in unbanked areas.

□ Providing banking access to biometric card holders also.

c. Micro ATM

□ Provides a low cost ATM alternative with basic features such as cash withdrawal & balance inquiry.

□ Can be located at easily accessible locations where rural people visit frequently, such as petrol pumps & markets.

D. Biometric Handheld Device

It is a handheld device for use by BCs. The device provides facility for thumb impression scanning or retina detection for user identification. While images can be read by the device, it can also provide audio confirmations of transactions & issue receipts.

E. Smart Cards & POS

Smart cards help store all customer information including a photographs and finger prints. The smart card user can deposit or withdraw by swiping it at a point of service (POS) terminal, which saves transactions information for uploading on the bank's main servers.

1. Kisan Credit Cards

The meaning of Kisan is farmer. The Kisan Credit Card was introduced in the year 1998-99 in order to provide adequate and timely credit to the farmers who avail credit from formal financial institutes. As on March 2011, banking sector issued 103.84 million cards. On the advice of the Department of Financial

Services, Ministry of Finance, mandate was given to NPCI to design Kisan Credit Cards. Following objectives are covered under the card scheme:

- Empowering the farmers to withdraw their drawing limit through any of the 1,00,000 ATMs under NFS network of NPCI.
- Reducing the transaction costs of the farmers by visiting the branches for cash withdrawals.
- As a result, there will be saving of precious man-days.
- Enabling the farmer to make cashless payments while making a purchase for agriinputs.
- Helping the farmers to link their Kisan Credit Card to the Aadhar Number and enable to transact at Business Correspondents in villages.

2.Immediate Payment Services (IMPS) NPCI's Immediate Payment Service (IMPS) is an innovative payment mechanism. Initially, it was conceptualized as a round the clock, mobile based, instant and person to person payment. It was started as InterBank Mobile Payment Services (IMPS) and now it has changed the nomenclature as Immediate Payment Services (IMPS) since it has become channel agnostic and lot many value added services are provided. At present, it has evolved into a multi-channel and multidimensional remittance platform.

Aadhaar Enabled Payment Services (AEPS) AEPS is a bank led model, which allows online interoperable financial inclusion transaction at POS (Micro ATM) through the business correspondent of any bank using the Aadhaar Authentication with Unique Identification Authority of India (UIDAI) to disburse National Rural Employment Guarantees Act (NREGA) and Swayam Shikshan Prayog (SSP). The objective of Aadhar is furthering Financial Inclusion by way of processing government disbursement using Aadhar number, to promote the electrification of payment and to support various schemes like NREGA (National Rural Employment Guarantee), Social Security Pension, Scheme for Handicapped persons, old age people from either state government and central government to send the financial details to the beneficiary using Aadhar number. It will reduce cost of acquisition, increase customer convenience and facilitate transition to electronic transactions. It will enable customer to undertake following transactions using AEPS:

- _ Cash withdrawal
- _ Cash Deposit
- _ Balance Enquiry
- _ Fund Transfer

3. The Pradhan Mantri Jan Dhan Yojana The Pradhan Mantri Jan Dhan Yojana aims to make sure that every Indian has a bank account. The zero-balance accounts come with several benefits such as insurance & RuPay cards to withdraw money. These accounts will also be used to make Aadhar-based Direct Benefit Transfers.

4. Direct Benefit Transfer and Aadhaar Seeding of accounts An important driver for enhancing the demand side of financial inclusion is Direct Benefit Transfer (DBT). It has the potential to be game changer. If entitlements under various state sponsored schemes starts directly flowing into the bank accounts of individuals under DBT mode, it can act as a catalyst to encourage saving habit leading to build up of investment and seed capital for availing productive credit.

Discussions and Conclusion The Government of India and the Reserve Bank of India have been making concerted efforts to promote financial inclusion as one of the important national objectives of the country. Some of the major efforts made in the last five decades include - nationalization of banks, building up of robust branch network of scheduled commercial banks, co-operatives and regional rural banks, introduction

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of mandated priority sector lending targets, lead bank scheme, formation of self-help groups, permitting BCs/BFs to be appointed by banks to provide door step delivery of banking services, zero balance BSBD accounts, etc. The fundamental objective of all these initiatives is to reach the large sections of the hitherto financially excluded Indian population. Finance is very effective tool in spreading economic opportunity and fighting poverty. India has a relatively comprehensive financial system and a wide network of banks. Access to savings products, credit and transaction services enables people and businesses to accumulate financial assets, invest, spread risks and make payments cheaply and efficiently. There are well-established links between the size and scope of the financial system and the rate of economic growth. While studies on financial inclusion have tackled the issue from variety of viewpoints, the focus is seemingly on finding out the relationship between financial inclusion with awareness, digital technology and constraints to access. Moreover, at the present global scenario, technology is found to be a determining factor in the ultimate performance of financial inclusion policy, regardless of the context or the participants of the study with relevant to this topic. The promotion of financial system should reach the person which is possible through technology, a viable tool that provides financial access in quick and cost effective way. The best existing tool is Automated Teller Machine operated everywhere in the nation.

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