

# DIGITALIZATION IN MICRO FINANCE SECTOR

<sup>1</sup>DR. AMBIKA BHATIA, <sup>2</sup>AYENA GILL

<sup>1</sup>ASSOCIATE PROFESSOR, PUNJABI UNIVERSITY REGIONAL CENTRE FOR IT AND MANAGEMENT, MOHALI

<sup>2</sup>RESEARCH SCHOLAR, PUNJABI UNIVERSITY REGIONAL CENTRE FOR IT AND MANAGEMENT, MOHALI

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**Abstract:** This paper aims to further the knowledge on how digitalization contributes in development of micro finance sector through MFIs (Microfinance Institution) and banking correspondents (BC) by analysing their potentials and limitations. Concepts of microfinance and BC are presented, as well as the technology in use has been explained, various suggestions have also been included so that this paper can also serve as a tool in helping MFIs to overcome the digitalization barrier.

**Keywords:** micro finance sector, digitalization, banking correspondents (BC).

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## 1. INTRODUCTION

Microfinance is defined as the process of making the financial resources available to the poor and lower income clients to help them in increasing their income, and ultimately improving their standard of living.

Patrick Meagher has defined microfinance as the process of providing small amounts of money for shorter periods of time with regular supervision so that the default in payment can be easily noticed. On the other hand Van Maanen has explained Microfinance as banking for the un bankable, and providing credit to people who are too poor and are not served by the formal banking system mainly because they cannot offer any collateral. In a country like India with almost 30% of people living below the poverty line and with no access to formal banking system, micro finance is the need of the hour.

Micro finance is not a new concept as SEWA Cooperative Bank in Ahmedabad, India was started by Ela Bhatt in the year 1974. The process of Micro-credit was also started in Bangladesh by forming the "Grameen bank" by Muhammad Yunus. He was later given the noble prize for this initiative which had helped to lift people out of poverty. NABARD also started with the process of providing micro finance with the help of self-help groups. With the help of SHGs a large number of people are able to pool their savings and later also become eligible to take loans from banks. This programme has also led to lift people out of poverty as it provides a certain level of safety and security to them. The SHG-Bank linkage program is working in India since the year 1992 and has today become one of the largest micro finance programmes in the world.

## 2. REVIEW OF LITERATURE

1) In a paper published by Vivek Kumar Tripathi under the heading Micro finance-evolution and growth of India (2014) it is shown that micro finance today has multiple players offering various products and services but its growth is mainly concentrated in south India. Therefore micro finance environment and micro finance infrastructure should improve so that people can get full benefit of its services.

2) Impact of micro finance on sustainable entrepreneurship development(2015)-A paper by Farhana Firdousi through a study in Bangladesh clearly shows that microentrepreneurs not only face financial obstacles but also lack business skills and knowledge of market. Therefore increased training and screening of business ideas is the need of the hour.

3) Stephen mago(2014) in his analysis on Micro finance and poverty alleviation states that micro finance is helpful in achieving its objective. By reviewing various studies from around the world he concludes that it improves the well being of people through income generation, asset creation and job creation.

4) EVOLUTION OF TECHNOLOGY- Application in Microfinance a paper published by CASHE - Credit and Savings for Household Enterprise has clearly illustrated that people are ready to accept new technology and are becoming more technology friendly. However, widespread technology adoption across entire institutions is still very rare.

5) Eduardo Henrique Diniz through his paper has highlighted the Role of ICT in Brazilian Banks and also the impact of business correspondents. He emphasises that micro finance greatly helps in enhancing the living standard of those who are the lower end of the spectrum but also believes that technology alone can help in achieving its full potential.

### 3. OBJECTIVES OF THE STUDY

This study is based on the following two objectives:

- 1) To study the impact of recent initiatives of the government on micro finance sector.
- 2) To study technology acceptance in micro finance sector.

### 4. RESEARCH METHODOLOGY

IN the words of Kothari with the help of research methodology we can solve a research problem in a systematic way. Methodology serves as a bridge between metatheory which are the general higher level assumptions or world views that underline researchers' work and the methods which are the specific practical procedures that researchers' use in collecting, analysing and interpreting data. (Peter Lor, 2011) The study is descriptive as well as analytical in nature and secondary data involving journals and reports has been used to make a critical evaluation of the material.

#### BC MODEL AND TECHNOLOGY:

The business correspondent popularly known as the BC model is one of the method used by Reserve Bank Of India to provide banking services to the remotest districts of India. It is an innovative model which helps to link each and every village with the formal banking system. It was first started in the year 2010 to cover villages with population more than 2,000. A total of 74,414 villages were identified and allotted to various banks (public sector banks, private sector banks and regional rural banks) through State Level Bankers' Committees (SLBCs). All the identified villages have been provided banking services through branches or business correspondents or through other modes such as ATMs and mobile vans. In June 2012, a roadmap was rolled out to provide banking services to unbanked villages with population less than 2,000. A total of 491,825 unbanked villages across the country were allotted to various banks through SLBCs for coverage. As on 31 March 2017, 96.0 per cent (472,136 villages) of the total villages allotted had been covered comprising of 19,875 villages through brick and mortar branches, 431,359 villages through BCs and 20,902 villages through other modes. Reserve Bank of India (RBI) on 15 July 2015 formed a committee under Deepak Mohanty on Medium-term Path on Financial Inclusion to create a five-year plan for financial inclusion, it submitted its report in December 2015. It recommended for setting up a framework for a BC registry and BC certification, following which instructions regarding the same were issued to the Indian Banks' Association (IBA) during the year. As recommended by the Committee, a financial literacy week was conducted across the country from June 5-9, 2017.

The literacy week focussed mainly on four broad themes, viz., Know Your Customer (KYC), Exercising Credit Discipline, Grievance Redressal and Going Digital. During this week, banks were advised to display posters on four common themes inside branch premises and also display one message each day on the home page of their respective websites as well as on the ATM screens across the country.

Further, Financial Literacy Centers (FLCs) and rural branches were advised to conduct special camps during this week. A movable asset registry was also launched by the Central Registry of Securitisation Asset Reconstruction and Security Interest of India (CERSAI), as recommended by the Committee to facilitate lending to the MSME sector.

BC Registry- The BC registry is proposed to be structured as a database of comprehensive information pertaining to the existing or potential business correspondents. It will give a holistic view of under-banked and less penetrated areas in a region and accordingly the delivery of financial services can be improved in such areas through appropriate policy interventions. It will also help in effective monitoring and oversight of BC operations. It is expected that banks and the regulators would utilise the database to gather critical insights and frame policies accordingly for strengthening the BC infrastructure.

The Reserve Bank has developed the framework for the BC registry and IBA is in the process of setting up an online registry portal.

**BC Certification-** As the customers served by the BCs are usually new to the formal financial system, it was essential to have knowledgeable business correspondents. Thus, a need was recognised to upgrade the skill sets of the BC agents thereby making them more sensitive towards the requirements of various customer groups using the BC channel, viz., small and marginal farmers, SHGs, micro, medium and small entrepreneurs, migrant labourers and retired people. Accordingly, the Reserve Bank of India has developed a framework for BC certification with basic and advanced level courses to enhance the functional and behavioural competencies of BCs. On the basis of this framework, IBA has set up a Governing Council comprising members from IBA, NABARD, two members each from academics and experts from industry. The Council is in the process of developing the course curriculum.

**Progress and Challenges-** India's financial inclusion initiative expanded its presence manifold from 2010–2017. The number of banking outlets in villages increased from 67694 at the end of March 2010 to 598093 at the end of March 2017, comprising 50860 branches, and 547233 through branchless mode.

### **Technology in Microfinance:**

Technology, innovation, and knowledge have become the key drivers of economic growth in India and the world today. From the past record we can clearly say that technology has played a vital role in the development of the economy as a whole. But the importance of technology increases as an industry expands because it becomes difficult to manage such enormous data manually. The Indian micro finance industry today is facing many problems on day to day basis and most of them can be solved if people as well as organisations that offer micro finance become more technology friendly. Collecting money from people who are geographically aloof, bearing extra cost, lack of information sharing etc are just a few of the many challenges confronting MFIs in India today.

## **5. TECHNOLOGY PRESENTLY IN USE AMONG MFIS IN INDIA**

### **1) Management Information Systems (MIS):**

According to the Association of Community Development Finance Institutions a Management Information System (MIS) helps in capturing all data, processes it and provides the required information for control, analysis and decision-making. It is a widely used tool due to its cost effectiveness and because of the fact that it can be used at all levels. Though a paper-based MIS can be effectively used, the advantages of digitalization are so numerous that any paper-based system should be used as a last-resort back up only. With an increase in scaling up activities, managers across microfinance institutions are becoming increasingly aware of the acute need to improve their information systems. An institution's ability to track the status of its finances, particularly its portfolio, in a timely and accurate manner, is a crucial need for any growing organization.

### **2) Point of Sale/Service technologies:**

The previous section establishes MIS as the basic technology building block for the MFI. The MIS platform also provides the supporting infrastructure for Point of Sale or Service (POS) technologies. A POS in the microfinance context is the point where financial services are exchanged between the client and the financial institution.

POS technologies, such as palmtops, personal digital assistants (PDAs), smart cards, biometrics, and mobile banks, facilitate the delivery of diverse client services.

Palm Pilots or Personal Digital Assistants (PDAs) have been a popular option due to relative small size and increasing computing power over time. Loan Officers use PDAs to capture and analyse data, assist in planning his or her collection schedules, portfolio tracking and loan application forms filling, centre audits, loan approvals and transparent data entry system. PDAs are also used by MFIs as a tool to have standardized credit methodology, increase data accuracy, and ease of access in this field.

Often in conjunction with PDAs, smart cards have been used by many institutions and have met with varying degrees of success across the country. A smart card is similar to a credit card, but it is embedded with a microprocessor. The smart card's microprocessor provides a form of connectivity and allows the devices to read and write into the smart card's memory. This technology is ideal for high volume transactions, such as credit cards and government issued identification cards; but the basic infrastructure is not in place to handle such advancements.

Stakeholder	Technology	Benefits
MFI	Portals /Internet	<ul style="list-style-type: none"> <li>• Information on potential partners (lenders and investors)</li> <li>• Information sharing with various stakeholders</li> <li>• Faster Information sharing within the organization– between the branch offices and the HO</li> </ul>
	MIS	<ul style="list-style-type: none"> <li>• More efficient Portfolio tracking and loan monitoring</li> <li>• Standardization of systems and processes increases investor confidence</li> </ul>
	Smart Cards	<ul style="list-style-type: none"> <li>• Standardized information across all clients</li> </ul>
	POS Technologies	<ul style="list-style-type: none"> <li>• Increased productivity, efficiency and accuracy of the field staff</li> <li>• Significantly reduced paper work and transparent record keeping</li> <li>• Real time data collection and processing</li> <li>• More time for group formation, products promotions and campaigns</li> <li>• Faster and accurate credit approval process</li> </ul>

## 6. MEASURES SUGGESTED FOR MAKING MICRO FINANCED SECTOR MORE TECHNOLOGY FRIENDLY

### 1) Creating an Environment Where Technology Can Be Used Effectively:

In order for technology to have a place within microfinance generally, and in India specifically, a basic infrastructure must be in place. Though alternate energy technologies, such as solar power or hand crank mechanisms, have been deployed in developing countries to overcome energy constraints, access to a relatively constant supply of electricity remains a necessity for technology to be effectively and widely applied in the microfinance sector.

In India, there are significant structural discrepancies across the four regional zones (East, West, North, South) in terms of the level of poverty, MFI concentration, infrastructure (electricity and tele-density), and literacy levels. As a result, the contextual needs and challenges vary significantly across these zones.

A majority of MFIs and technology service providers are located in the south India. A southern technology provider may not know particularly the eastern or northern features. This unfamiliarity may prove to be detrimental during product design and its implementation. For example, a PDA, if introduced in rural east or north India which have very poor electricity supply, would require substantial battery back up to be effectively used in this area.

Similarly, the Eastern part of the country has relatively low tele-connectivity. There is an immediate need and opportunity for service providers such as Motorola to enter the region and provide connectivity solutions to them. Additionally, the central and state governments should encourage connectivity investment by giving preferential contracts to suppliers who are willing to help and work with MFIs to bring connectivity technologies to their operations.

Technology providers should keep these structural disparities in mind when designing and introducing technology based services and solutions. Indeed, before any technology solution is put in place a detailed, ground-level, needs assessment study and cost-benefit analysis should take place to ensure that the requisite environment is in place to support the technology being used.

The Indian government, through SIDBI and NABARD, also has a role to play in providing technology specific loans and grants to MFIs. In order for microfinance to rapidly serve the hundreds of millions of people in poverty, support for technologies that can help increase efficiency and outreach should be provided. These grants should also have attached performance goals, such as detailed information gathering and reporting, as technologies such as MIS and POS make these activities possible.

**2) MFIs must work together to collectively invest in, and reap the rewards from, technology:**

The lack of technology information sharing between MFIs is one of the major problems. Therefore it is important to solve it. A technology information portal, as described earlier in the report would help MFIs when making technology procurement decisions by allowing MFIs to learn from another's experience.

Though a portal is important, its usefulness is determined by the number of technology trials that are conducted and the results that are shared with the Indian MFI community. The trials that have taken place so far are a step in the right direction, but much more can and should be done. Specifically, more trials need to take place at the Growth and Youth MFI levels, as technology can be effectively leveraged to help achieve financial breakeven and rapidly scale up the operations.

However, technology cost is a clear barrier for most of the institutions in the country. This can be addressed by forming a microfinance technology standards organization. Standards create economies of scale, which lower component costs and make technology more accessible. In addition to standard, MFIs must invest in training their key decision makers to better help understand the concept of Return on Technology Investment (ROTI).

There are no case studies available in the Indian context that give an indication of the time frame for expected returns on technology investments. The benefits are more "perceived" than "proved", and though there may be soft benefits, in terms of time saved and increase in transparency it is difficult to be proved in a quantitative way. As a result, there is an evident need for thorough studies to integrate finance and technology and to bring about more clarity on the returns on technology investments.

MFIs attitude towards technology should be one of optimistic embrace. Technology has a crucial role to play in building capacity and MIS and POS technologies provides organizational transparency, accountability, and improve operational efficiency, while integration technologies facilitate information sharing across all stakeholders. These technologies have the potential to vastly streamline the flow of information and also capital.

**7. CONCLUSION**

From the above discussion it is quite evident that growth of technology in micro finance sector is at a very early stage wherein a lot of MFIs are not even using basic technology because most of the clients belong to rural area and therefore are not tech friendly. But The experiences in all of these ventures have established that with proper initiation and training, the rural client will embrace technology.

Management's perception of technology is perhaps the most critical factor in determining the institution's technology appetite. Management that sees a clear role for technology in facilitating institutional growth is more likely to endorse technology than those that are unsure how technology can be applied to their institution.

Therefore we can say that infrastructure development along with the change in the perception of the people involved in management of MFIs is the only way forward for the development of microfinance and the economy as a whole.

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