ROLE OF TECHNOLOGY IN MICROFINANCE SECTOR IN INDIA

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ABSTRACT:
Technology, innovation, and knowledge have become the key drivers of economic growth today. A broad scan, across many industry verticals, suggests that much of the economic growth of the last decade has been facilitated by the existence of strong technology platforms. The effective absorption and utilization of data and information is extremely important for any sector at various developmental stages. However, the importance of data management becomes more pronounced at the advent of the growth stage when an industry is expanding and diversifying rapidly. This is the state in which the Indian Microfinance industry is in today. As a result, microfinance practitioners’ motivations to use technology interventions are the same as those for any other similar business model: technology’s ability to speed up the flow of information and capital, automate transactions, control and analyze data, improve customer experience, reduce transaction costs, and increase efficiency and customer outreach. Technology’s potential has, therefore, led Microfinance stakeholders to believe that technology can have a profound impact on their operations. As a result, technology’s promise and potential is being explored by both technology providers and microfinance institutions.

INTRODUCTION
Technology, innovation, and knowledge have become the key drivers of economic growth today. A broad scan, across many industry verticals, suggests that much of the economic growth of the last decade has been facilitated by the existence of strong technology platforms. The effective absorption and utilization of data and information is extremely important for any sector at various developmental stages. However, the importance of data management becomes more pronounced at the advent of the growth stage when an industry is expanding and diversifying rapidly. This is the state in which the Indian Microfinance industry is in today. As part of this growth stage, microfinance in India is undergoing rapid changes and discovering new challenges. Collecting money from scattered, remote clients, the cost of service delivery transactions in the “last mile”, effective information exchange at the institutional level, and effective growth management are just a few of the many challenges confronting MFIs. As a result, microfinance practitioners’ motivations to use technology interventions are the same as those for any other similar business model: technology’s ability to speed up the flow of information and capital, automate transactions, control and analyze data, improve customer experience, reduce transaction costs, and increase efficiency and customer outreach. Technology’s potential has, therefore, led Microfinance stakeholders to believe that technology...
can have a profound impact on their operations. As a result, technology’s promise and potential is being explored by both technology providers and microfinance institutions. Though microfinance significantly differs in some ways from the traditional banking industry, traditional banking technologies, when applied innovatively in developing countries, have played a role in reducing costs and increasing outreach and penetration, of the microfinance model. Management Information Systems (MIS), Point of Sale technologies (POS), Automatic Teller Machines (ATMs), Interactive Voice Response (IVR) systems, and smart cards are among the major technologies that have entered microfinance over the years from the formal financial sector. Across the four major stakeholder groups, technology can meet the process requirements and increase general information sharing, efficiency, and lower costs.

OBJECTIVES OF THE STUDY
The objectives of this conceptual study are mainly focusing on the impact of technology utilization in Microfinance Sector in India. The main objectives are as below:

a) To signify the role of technology and management information systems in traditional financial services.

b) To focus on constraints and hurdles in the technical implementation and adoption.

c) To understand the role of ICT in microfinance sector.

METHODOLOGY OF THE STUDY
The present conceptual study is done on the recent trends in microfinance institution and the technology impact on the MFIs in India. The necessary data is gathered from the secondary sources like text books, magazines, journals, e-journals, published and unpublished articles, websites, etc.

ROLE OF TECHNOLOGY IN TRADITIONAL FINANCIAL SERVICES- BANKING SECTOR PERSPECTIVE

Mobile banking
Mobile banking is a popular method of technologically oriented banking. Also called as M-Banking or SMS banking. Leading Indian banks have tied up with leading telecommunication companies like Bharti Airtel and Reliance communications for offering these services. Mobile banking allows the user to log into his account from a cell phone, and then use the phone to make payments, check balance, transfer money between accounts, view monthly statements and etc. This service will provide convenience to consumers by not having to go to a bank branch physically logon from their home computer or make a phone call. But one can beware of security problems that may arise with mobile banking service.

ATM
This facility enables the population to have banking services without physical direct recourse to the bank premise. ATMs with operating instructions in vernacular languages facilitate the access poor people with reading ability. ATMs with voice recognition for the illiterates for transactions relating to savings, credit and payment services. Biometric enabled ATMs to bring more
illiterate people to the banking fold. Mobile teller low cost ATMs in the rural and remote areas also facilitate poor people.

**Phone banking**
Phone banking is the process of conducting banking transactions over a secure telephone network was catching the fancy of customers. Here a majority of common transactions including balance enquiry, requests for cheque books, insurance, loans, mutual funds and other investments could be done through an Automated Interactive Voice driven Menu or a Customer Service Associate. Customers have the convenience of calling up their banks from the comfort of their homes or offices or from their mobile phones while on the move.

Phone Banking is secured via PIN, address, identity and phone number authentication and the customer can choose to call anytime using a toll free number. This is an efficient system which provides prompt solutions to customer complaints and generates high customer satisfaction levels when utilized effectively. Customers are at times put off by the queuing and waiting times and impolite and slow customer service associates.

**Internet banking**
Internet banking or e-banking is the latest in the series of technological advancements in the delivery of banking products and financial services. In Internet banking any inquiry or transaction is processed online without any reference to the branch (anywhere banking) at any time. Now it has become the cheapest way of providing financial services in many developing countries.

**INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTs) AND MICRO-FINANCE ACTIVITIES.**
The MIS involves all aspects of gathering, storing, tracking, retrieving and using information within a business or organization. The information system helps loan officers track their clients repayment schedules and balances. It helps management to assess the quality of the loan portfolio. And it can help the entire institution monitor progress toward operational objectives. Thanks to the development of computers and the software applications that run on them, much of this work can now be automated and information more readily accessed. When applied in combination with sound operating procedures, IS software can improve transparency and efficiency, lower costs, improve reporting, and allow management to make more informed decisions.

ICTs can be effectively used to provide information about micro finance organisations and their services. Though many web sites provide information on micro financing, there is dearth of information on the terms and conditions, institutions that provides micro finance etc. This information can be provided both in English and also in other Indian languages. ICTs can be effectively utilised to monitor the various Micro Finance activities. The various schemes implemented by the Department of Rural Development are monitored physically through various impact assessment studies. The information required to assess the schemes at the grass root level can be out sourced to the self help groups.

ICTs can be used to provide access to wider markets and better prices. ICTs can be used to enhance the economic returns for the micro finance activities by providing access to global markets at better prices. At present RURALBAZAR (http:// ruralbazar.nic.in) the application
software has been conceptualized to assist market needs of products produced by rural people. It offers internet web to show case there products to the world. It seems some of the states like Tamil Nadu, Goa and Tripura have successfully adopted the software. However, efforts should be made to ensure quality of the products produced by rural producers and to provide adequate logistic support like appropriate packages and timely delivery to the products.

PROBLEMS IN THE IMPLEMENTATION OF TECHNOLOGY
An introduction of technology necessarily brings with it problems in the education and acceptance by microfinance customers. These customers, often illiterate or educationally deficient, may lack even a basic understanding of how to interact with technology that is vital to the success of microfinance. Microfinance institutions must first gain a complete understanding of the local community. They must then decide whether a particular technology is viable in that area, and if so, how it should be tailored to meet the specific needs of the people they wish to serve. These institutions may also develop educational programs or offer personal support services to increase the comfort level of their customers in using microfinance technology.

Problems also arise in the implementation of technological infrastructure. Many of the areas that microfinance institutions serve do not have adequate electrical or communication wiring. Their populations are also not concentrated in a single area, and the costs associated with transportation and serving a limited amount of transactions are often too high for institutions to service. When a microfinance institution attempts to introduce a sophisticated or unfamiliar technology into its business structure, an important consideration is the level of knowledge the average customer possesses on that technology. A promising technology, such as point-of-sale cash terminals or ATM machines, could ultimately fail and lead to a large financial waste if its intended population does not know how to use it. According to Guatam Ivatury, an adviser with CGAP, the most successful strategy in instituting a new technology into an MFI is to follow a six step process: project preparation, needs analysis, design, selection, implementation and management. In the beginning stages, bringing in outside consultants that can provide insights into what has worked before, which technology providers best suit their specific customer profiles, and whether or not it is cost effective to provide additional education to the public in how to use the technology. Additionally, donor funds could be channeled towards necessary education programs that can ensure the technology takes hold.

The lack of infrastructure - in areas such as transportation, communication, and electric wiring - is a major hurdle for MFIs attempting sustainability. Additionally, as a result of clients being spread out in rural areas, there are additional transaction costs even with the proper infrastructure.

PROBLEMS IN THE ADOPTION OF TECHNOLOGY
Most existing software for MFIs is developed by and for large organizations, often with significant financial support from donors, and not with the needs of smaller rural organizations in mind. In addition, these solutions are typically proprietary (or built on top of proprietary technology), which means their owners charge licensing fees for use of the software and control who can make changes to it. Even in cases where the owners do not charge for use of the software, the costs of training and customization can be significant. This prevents access to the technology especially for smaller and remote organizations that cannot afford the required capital investment and are unable to modify existing packages to suit their needs.
In sum, mature software packages and ICT solutions for MFIs already exist, but they are usually not suitable or affordable for the small institutions. Some of the obstacles, specific to these small organizations include:
Lack of skilled staff to support the MIS
Lack of local IT support and services environment for after-sale service, training and support.
Lack of budget to procure and update/upgrade technology
Very basic technology needs, which are not addressed well by existing sophisticated solutions.
High need for localization (language of interface, iconography etc)

SUGGESTIONS
- Measures have to be taken by government and NGOs & other institutions to educate rural people before introducing the technology related services.
- Necessary measures need to be taken by government to provide infrastructural facilities in order to overcome the problems of adoption and implementation of technology.

CONCLUSION
The role of microfinance as a viable alternative to formal financial systems has expanded beyond what many considered possible at its inception. Regions of the world in which there were no realistic means for the poorest and least educated to obtain credit or save now rely on microfinance to avoid the exclusionary nature of formal banking systems, finally beginning the process of overcoming poverty. Much of this success has been due to the innovative use of communication, transportation, and information technologies that allow microfinance institutions to survive, or even thrive, in financial environments that are exceptionally difficult to work with. Continued growth of the microfinance industry, however, will depend on overcoming technology related problems that have yet to be adequately addressed.

REFERENCES
Consultative Group to Assist the Poor (CGAP), www.cgap.org