

Review

The up-scaling of technology to build inclusive financial systems in India

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The challenges from a technology point of view are many. The systems that provide connectivity need to be relatively inexpensive if they are to be commercially deployed, given the lower incomes in rural areas compared to urban areas. Recently, information and communication technologies (ICT) have emerged as a powerful tool to reduce operating costs, making it viable for financial institutions to expand into rural and low-income areas. It is this possibility of ICT solutions for expanding the rural finance frontier that has stimulated the writing of this paper. Despite the success of microfinance services in many countries, access to financial services in remote rural areas remains a challenge. An innovative business model is required to deliver the financial services to rural areas.

Key words: Up-scaling, ICT, financial inclusion, microfinance, business model, SHG, MFI.

INTRODUCTION

The economy of every nation flows through its financial system. A common requirement of all participants in nation's economy building is that each of them has minimal access to banking and financial services. Access to finance by the poor and vulnerable groups is a prerequisite for poverty reduction and social cohesion. This has to become an integral part of the efforts to promote inclusive growth. In fact, providing access to finance is a form of empowerment to the vulnerable groups. The Banking industry functions as an intermediary between surpluses and deficit, savings and investment and thus, plays an important role in the economic development of the country.

Financial inclusion denotes delivery of financial services at an affordable cost to the vast sections of the disadvantaged and low-income groups. The objective of financial inclusion is to extend the scope of activities of the organised financial system to include within its ambit people with low incomes and the unreachable through the formal financial system to make them partner of economic growth of the country.

Though the Indian economy recorded an impressive growth over the last three years, its impact was not adequately spread out among all stake holders of the society. Despite being one of the ten fastest moving economies of the world, India is home, to over one third

of the World's poor people. Providing seamless financial services to these teeming million has become a very important agenda of the financial services industry of our country.

FINANCIAL SERVICES TO THE POOR

Providing financial services to poor people is costly, in part, because they have small amounts of money and rarely have documented credit histories. During the past few decades, the commercial banks in India have begun to solve the latter problem by developing techniques that permit safe lending in the absence of borrowers' credit histories. Still, the banks feel that they are charging relatively less interest rates to cover the administrative costs of handling small transactions. It is estimated that the banks operating in the rural areas with operating costs of 10 - 12% of assets are considered efficient, while similar ratio of banks in the developed countries rarely exceeds 5%.

Despite significant inroads in microfinance in recent years, such as through widespread retail lending to SHGs and wholesale lending to MFIs by the commercial banks, most commercial banks still view microfinance as unprofitable. Many of the commercial banks cannot

compensate for high costs by charging high interest rates due to certain restrictions and social responsibilities. In India, most commercial banks cannot charge more than their prime lending rate (roughly averaging 13%) for loans below Rs. 200,000.

Public-sector banks are particularly sensitive to the political implications of charging poor borrowers relatively high interest rates. Public sector banks in India do serve poor clients but their objectives are largely social rather than commercial. Most of the private sector banks devote resources and attention to a smaller set of wealthier retail and corporate customers, while a majority of people remain without access to formal financial services. Banks will not aggressively target the poor as a market until they find ways to serve them profitably. This will require delivery channels that are inexpensive to set up, a wider range of financial services to poor customers, and the ability to handle transactions at low cost.

Felt need of innovations in financial services to the poor

An efficient financial sector is an engine for economic growth. It converts the fuel of savings into kinetic energy for the economy. The banking industry which is at the core of the financial sector must take the lead. The reform process which started in the 90's has given the industry a great opportunity. As such, there is a felt need that this sector becomes more efficient. It must also identify other sectors with growth opportunities and devise strategies to move savings into these sectors through different innovations.

Industry experts agree that to fully benefit from the income opportunities available in today's increasingly favourable marketplace, the lenders, that is, the commercial banks with special reference to public sector banks must demonstrate the operational efficiency necessary to keep pace with the requirement of the day; that is, serving the mass with greater efficiency. This maintains the balance of delivery by the supply side with the requirement from the demand side.

Under the above situation, the outreach of the formal credit delivery system needs upscaling. It is felt that the introduction of new and innovative delivery channels as envisaged by the different visionaries although they are being practiced in limited scale by some commercial banks could be considered the tools to achieve the business objectives of financial inclusion.

INNOVATIONS IN INFORMATION TECHNOLOGY

Now it has been proved by many researchers that the banking technologies if applied innovatively in a country like India could make financial inclusion through micro-finance (both retail and wholesale) profitable for formal

financial institutions like commercial banks. It is also a fact that the use of information technology has the potentiality to reduce costs to such an extent that banks could profitably serve even those whom MFIs have mostly excluded till date, such as the very poor and remote rural customers. The innovation in this field has also ensured that these customers could use the technology comfortably.

Some of the innovations commercial banks need to serve their poor clientele may be found in leveraging information and communications technologies (ICTs) for effective delivery of financial services. In India, low-cost "direct banking" technology channels, such as Internet kiosks, automated teller machines (ATMs), bio-metric machines (poor man's ATM) etc can be set up at only one-fifth the cost of a branch teller.

INTERNATIONAL EXPERIENCE ON THE USE OF ICT

Banks in Brazil use point-of-sale (POS) terminals, such as bankcard readers, at retail and postal outlets to deliver bill payment, savings, credit, insurance, and money transfer products in nearly every municipality in the country. These terminals can be set up at a cost of less than 0.5%, which is the cost of setting up a typical bank branch. These reduce costs to such an extent that banks could profitably serve those whom MFIs have mostly excluded to date, such as very poor and remote rural customers. Will these customers be comfortable with the use of technology?

In a recent CGAP survey (2006), 62 financial institutions in 32 countries reported using technology channels (these technologies, including ATMs, POS devices, and mobile phones) to handle transactions for poor people. Nearly 75% (46) of the banks (respondents) operate in both large markets (e.g., India, Brazil and South Africa) and small markets (e.g., Malawi, Namibia and Guatemala).

THE SUITABLE TECHNOLOGIES

Most poor people, particularly those working in the informal economy and in rural areas, earn and spend in cash. To handle a cash transaction outside of a bank branch, banks have at least two ICT options. They may use an ATM that can accept, store, and dispense cash, or they can use a bio-metric device which are mobile in nature and can be carried by the business correspondent and business facilitator.

These technologies are becoming increasingly available in India because of falling hardware costs and growing support infrastructure. At one time, the poor supply of telecommunications and electricity could not support ATMs or other devices, particularly in rural areas. Now, however, telecommunications and electricity

infrastructure are more widespread and reliable. From 1999 to 2007, the number of mobile subscribers in India grew from 8 to 185 million, an average annual increase of 150%. There are more users than mobile phone owners.

Technology has also made advancement and in cooperation with hardware manufacturers, it is now available now at a lower cost. To overcome the problem of high capital investment, some of the hardware providers have designed rural ATM priced between Rs.60000 to Rs.75000 depending on the configuration (Das, 2007). This type of ATM has an additional capability of using fingerprints as the means of authentication with a view that the rural people are more comfortable with fingerprints than the plastic cards. Some of the banks both in public and private sectors have started using these ATMs and are receiving good results. Such a system could facilitate banking services in villages for 365 days

BENEFITS OF USING THESE TECHNOLOGIES

Most respondents to CGAP's survey use technology channels to automate basic transactions, reduce processing costs and give customers added convenience. For example, of the seven respondents who answered questions about their use of ATM and bio-metric devices, only two reported seeking services beyond payments and withdrawals with this technology channel.

Some of the banks in India like ICICI Bank, HDFC Bank, State Bank of India etc are probably gaining more dramatic benefits, by creating new channels with ICTs that allow them to gain new customers in areas where setting up a bank branch is too costly. Mobile phone operators are also beginning to offer banking services, usually in partnership with banks or MFIs.

IMPROVING CUSTOMER CONVENIENCE

Banking institutions in India typically place ATMs in or near branches, where they can process routine deposit, withdrawal and balance transactions and make inquiry at a far lower cost than the cost of using a teller. This gives the staff opportunities to sell products or give customers personalised attention. ATMs also save customers from having to wait in line to get to a teller. Corporation Bank, Andhra Bank, ICICI Bank, AXIS Bank, HDFC Bank to name a few now make use of ATMs to serve rural, urban and semi-urban customers who live far from the bank branch or who cannot visit banks during normal business hours because they are at work.

Many poor people are unfamiliar with bank procedures or feel uncomfortable dealing with tellers and other branch staff. In contrast, retail and postal outlets often enjoy substantial brand value and are trusted by

community members; many retail and postal outlets have a long history of operation in the community. Instead of branch banking, customers may prefer to use the ATM and also the bio-metric devices.

The banks also offers payroll deposit services to factory in the factory premises (e.g. sugar factories in Uttar Pradesh) allowing workers and the farmers to withdraw cash from their accounts anytime using an ATM at the factory. Most workers and farmers prefer this to carrying a lot of cash home on payday. Delivering banking services through retail and postal outlets equipped with ATM and bio-metric devices offers similar client benefits.

LOWERING PROCESSING COSTS

Bank branches are expensive because they require considerable investment in staffing, infrastructure, equipment, and security for storing and transporting cash and valuables. In India, the estimated average costs associated with opening a new bank branch at rural and semi urban areas are about Rs.75 lacs, the costs can be as high as several hundred lacs in urban and metropolitan areas.

The ATM channel is generally less expensive than the use of branch tellers because ATMs fully automate cash disbursements and collections, but cash still needs to be transported to and from the machine. The use of bio-metric devices is probably the least expensive of these channels, because they are mobile and can be move around as per the requirement of the customers.

In general, banks worldwide are trying to orient and move their customers toward low-cost technology delivery channels. From June 2000 to January 2002, ICICI Bank reduced the number of transactions at branches from 78% of all transactions to 35%. The remaining 65% were processed online, at ATMs, or over the phone. In 2002, transaction costs at ICICI Bank were estimated to be Rs. 34 at a branch, Rs. 28 through a call center (e.g., phone banking), and Rs. 20 at an ATM.

REACHING RURAL AREAS WITH TECHNOLOGY CHANNELS

Private and state-owned banks in our India have pioneered the use of ATM and bio-metric devices at retail outlets to deliver banking services to the low income and rural people who were not initially interested in banking activities. Both the private-sector and public sector banks are in the process of appointing "business correspondents". These correspondents are post offices, supermarkets, grocery stores, petrol pumps, and other retail outlets that are present in every nook and corner of the country, including very rural areas where bank branches would probably be too costly to set up. In small shops, the shopkeeper handles banking services for

customers, and in larger stores, a store employee is dedicated to this purpose.

The banks could think to equip each business correspondent with a bio-metric device, which are less costly to install than ATMs, with running costs limited to charges for telecommunications and transaction fees for the retail outlet. In addition, these devices can work without constant communication and electrical connection availability, making them ideal for rural locations.

With the business correspondents, customers can open current accounts and access a variety of services, including savings, credit, insurance, money transfers, pensions, other government benefits, and bill payments. Since banking correspondents first emerged in Brazil in 2000, private and public banks have opened an estimated 8 million new current accounts through this channel.

STRATEGIC IMPLICATIONS OF ICT FOR MICROFINANCE AND FINANCIAL INCLUSION

The profitability of technology delivery channels, and the extent to which they can serve a wide range of poor people, is not yet known. Still, banks and microfinance practitioners have much to learn from the early

experiences of Brazil's private and public sector banks in reaching remote areas and from mobile banking initiatives under way in South Africa, Philippines and the India.

Three aspects on the use of technology for microfinance deserve more attention. If governments want to harness the potential of technology in order to increase access to financial services for poor people, they must think more broadly about policy. Further study is needed to understand the extent to which poor people are excluded from technology delivery channels and the effect this has on channel profitability.

REFERENCES

- CGAP (2006). IT Innovation Series article on ATMs. www.cgap.org/technology.
- Das PK (2007). "Information and Communication Technology (ICT) – A Catalyst to Transform Agricultural Lending Business of Commercial Banks" *The Indian Banker*, published by Indian Banks' Association, Mumbai. 2(5): 21-25.