

ICT enabling rural financial services and micro-insurance for smallholders



e-SOURCEBOOK

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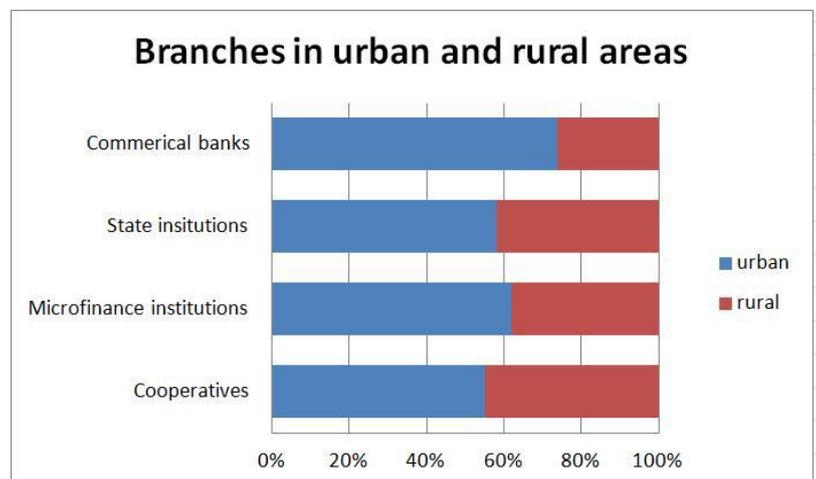
ICT IN AGRICULTURE

Connecting Smallholders to Knowledge, Networks and Institutions

The World Bank, in collaboration with the e-Agriculture community and the Food and Agriculture Organization of the United Nations (FAO), is holding a series of two week online forums. These e-forums stem from the launch of the World Bank's *ICT in Agriculture e-Sourcebook* (2011) and the growing demand for knowledge on how to use ICT to improve agricultural productivity and raise smallholder incomes. The following summary captures the discussion during one e-forum. The text is derived strictly from the participants' posts during the forum and does not reflect the views of the World Bank or FAO.

In Sub-Saharan Africa, 60-70% of the population live in rural areas, with the majority engaged in agriculture. Yet most of this population does not have access to formal financial services. A similar situation is found globally as shown in a graph from data found in *Financial Access 2010* (report on statistics for financial access).

According to the *ICT in Agriculture Sourcebook* (<http://www.ictinagriculture.org/sourcebook/module-7-broadening-smallholders-access-financial-services>), "ICT has created the potential to deliver a



Source: CGAP and World Bank 2010.

greater diversity of financial products to greater numbers of rural clients than conventional financial service providers have been able to reach. ICT can also enhance the government's capacity to monitor and evaluate financial services provided to rural clients and design effective financial policies and regulations for the rural sector."

ICT use for rural finance and micro-insurance providers

As both technology and human capacity develop, service providers are using ICT in more and more ways to facilitate access to rural finance and micro-insurance.

There are many ways in which microfinance and micro insurance providers use ICT in day to day operations. Some mentioned were:

- Mobile finance systems for payments, fund transfers, savings, etc.
- Micro-insurance systems linked to farmer outputs and marketing activities
- Micro-lending platforms
- Client enrollment through SMS
- Marketing micro insurance products, including life and weather index insurance
- Notification systems for clients, service providers and regulators, automatically triggered by preset values
- Claims payment through mobile phones and banks
- Notification of accidents and preparation of payment by mobile
- Analysis of loans in the field using smartphones or tablets

Using ICT in the provision of rural financial services can have several benefits. Potential benefits identified in the discussion include:

- Reduced transaction costs to both lenders and borrowers
- Better farmer profiling systems for agricultural credit decisions
- Improved farmer access to credit and financial services (due to credit history, better productivity and income profiling, access to information)
- Greater protection for farmers in time of bad weather or disaster

A particular focus was made on how ICT applications can help strengthen value chain finance and the relationships between strategic partners. These benefits include:

- Monitoring changes in client risk profiles
- Managing cash flows
- Monitoring transfer of goods and payments from a distance (GPS can be used to monitor location of goods over time and whether on-time delivery is expected, which is especially important for perishable products)
- Facilitating web-based linkages and market information from overseas buyers
- Facilitating access to higher cost technology by leasing it to farmers to ensure higher quality standards

Benefits of information facilitated by ICT affects many actors in rural services

Multi-stakeholder partnerships were identified as a critical factor in successfully deriving the most benefit from ICT usage in the provision on rural finance and micro-insurance.

Critical stakeholders and some of their main roles were identified. Micro-finance institutions and banks use ICT for marketing, policy documentation, enrollment, lending to more remote and/or higher risk farmers, reducing default risk, and achieving higher credit penetration.

Both farmer organizations and civil society use ICT for marketing, better farmer awareness, more access to credit, and increased protection from livelihood shocks.

Input suppliers use ICT for marketing, policy documentation, enrollment, sales promotion, extending outreach, increasing customer loyalty and uptake, and reducing default risk.

Governments use ICT to increase their outreach, improve understanding of policies, and expanding credit penetration.

For meteorological services, ICT provide a way to benefit from value added services (VAS) such as crop advisories, pest warnings, flood warnings and seasonal forecasts, and provide better data for validation and analytics.

Insurance companies use ICT for better customer experience, efficient claims handling, better data for analysis, and marketing. While reinsurance companies use ICT for better data, faster claims handling, and improve transparency in their products.

As an example of how these different stakeholders and ICT-derived information converge, one participant recounted the discussion at a training on agricultural value chain finance in Mali. When market information related to the potential strengthening of shallots, potatoes, tomatoes and rice was demonstrated, a managing director from a large agricultural bank exclaimed “This is the kind of information we need to make good agricultural loan decisions, more so than the guarantees typically offered.”

Challenges to achieving full benefits of ICT in rural financial services

While recent discussions and press cover growth in rural financial services stimulated by ICT, there remain several underlying factors that constrain scalability and replicability as well as success in providing positive returns to smallholders.

Regulatory issues related to the financial sector remain a major obstacle to rural financial services facilitated by ICT. This is especially true where the non-banking sector is more advanced in the use of ICT for rural services. While MPESA is widely regarded as successful and a model to be followed, most regulators in other countries are still uncomfortable allowing nonbanks to take the lead, arguing that electronic money is effectively banking and therefore requires a bank license. Partnerships between banks and mobile network operators (MNOs) that seek to bridge this gap have yet to provide examples of regular success.

Allowing nonbanks to enter this space could both increase competition and result in more successful businesses serving the needs of rural farmers. There is some reason for hope, as in an increasing number of countries regulators are removing obstacles to, or enabling nonbank e-money services, such as in several East African and East Asian countries, Brazil, Peru, Jordan and Morocco. However, there remain several highly populated countries with large rural and financially excluded populations where nonbank are still not permitted to enter the financial services, including India, Nigeria, and Pakistan.

The tendency for rural financial markets to be generally underdeveloped limits the reach and positive impact of rural financial services. Even where ICT-based services are supported by the regulatory environment, loans in particular are limited by a lack of insurance companies focused on supporting smallholders. Increasing access to smallholder focused micro-insurance, and establishing a central checking point for electronic money flows, would have a positive impact on the overall rural financial services sector, as well as the direct benefit of reducing risk to the smallholder.

As with any market or service where ICT is employed, the new technology comes with a risk of hacking. Exploitation of technological shortcomings or user ignorance poses a serious threat when the technology is used to manage an individual's finances. The capacity of individuals to understand both the technology (using ICT tools) and the financial products (e.g. insurance policies) is an issue that limits the benefits and expansion of these services in rural areas.

Financial service providers are not always providing adequate feedback systems or customer support. Furthermore, whether the cost of ICT systems is being transferred to customers and making products more expensive is something that remains un-answered.

More generally, it was observed that the positive impacts of ICT are not well defined in the financial services sector. A concerted effort is needed to provide concrete examples of the cost savings and productivity enhancements through the use of ICT. It seems that financial institutions intuitively know that they benefit from ICT. However, in order to convince more microfinance and microinsurance providers to expand to rural areas, it is necessary to show the cost savings and break even points for using these technologies. For example, MPESA is often mentioned as having very low transaction costs. However, is this due to the use of ICT, or its high subscriber base, or some other factor? Offering insight into the challenges of attributing the value of using ICT, research by AZMJ for the Inter-American Development Bank found that many successful rural microfinance providers are able to achieve significant volume through the use of ICT and innovative distribution systems. This in turn allows them to cost-effectively cross subsidize the higher costs of outreach in rural areas. At the same time, they found that competition (not regulation) was the greatest driver of lower interest rates. (See "Interest Rates and Implications for Microfinance Institutions" available online at <http://bit.ly/14shZzU>.) Addressing gender equity is essential for ICT-based rural financial services, as with other ICT uses. Sonjara Inc. (www.sonjara.com) has found that there is a sizable difference in access and usage of ICT based on gender and education/wealth. It is essential that these factors are reflected in financial inclusion strategies.

Thanks goes to everyone who participated in this forum and made it a success. Special recognition goes to the Subject Matter Experts who volunteered their time, shared their knowledge on these important issues, and guided the discussion that lead to the output you are now reading: Anita Champion, Founder, AZMJ; Saleh Gashua, Secretary General, AFRACA; Juliet Kyokunda, Microinsurance Agency; Calvin Miller, Senior Rural Finance Officer, FAO; Won-Sik Noh, Secretary General, APRACA; Maria Pagura, Senior Program Officer, World Bank; Michael Tarazi, Senior Policy Specialist, CGAP; Roger Thomas Moyes, consultant, World Bank.