New Frontiers: Launching Digital Financial Services in Rural Areas

Cameron Peake, Director, Impact Investing and Social Innovations Partnerships, Mercy Corps

Despite the trend toward greater urbanization, more than 50 percent of the developing world's population (3.1 billion people) lives in rural areas.[1] Technology has the potential to be a great enabler for these populations. Significantly, digital payments technology facilitates rural access to information, and increasingly to the capacity to save, borrow and transact.

The rise of mobile network operator (MNO)-led and bank-led digital financial services offerings, as well as joint and third-party initiatives, is well documented. Globally, there are more than 130 live mobile money deployments tracked by the GSMA, the mobile telecom industry body, and another 87 in development.[2] Of bank-led initiatives, there are 236 agent banking deployments in Brazil, Peru, Colombia and Mexico alone, with a total of more than 43,000 combined agents. As the market is further defined and developed, payment actors such as Visa, MasterCard and Western Union are positioning in this space as well.

Digital financial services have taken off across Africa, Asia and Latin America (see box 1). How can we support inclusive growth to benefit the poor, many of whom live in rural areas where commercial development requires a different approach? This policy brief explores the strategies and challenges to better build out digital financial services systems in rural areas, outlining practical considerations for new entrants aiming to provide services to these populations. These recommendations are based on the work and research of Mercy Corps, a global nongovernmental organization (NGO) with more than two decades of experience in financial services and rural development.

PROBLEM AND OPPORTUNITY: THE CONTEXT FOR RURAL FINANCIAL SERVICES

Numerous reports describe the runaway success of Safaricom's M-PESA mobile money service in Kenya,[3] which boasts more than 14 million users and provides financial services to more than 70 percent of the country's adult population.[4] By some accounts, nearly one-third of Kenya's gross domestic product passes through M-PESA.[5] However, services outside Kenya

BOX 1. DIGITAL FINANCIAL SERVICES IN A NUTSHELL

For the purposes of this policy brief, the term "digital financial services" refers to the provision of some mix of financial and payment services that are delivered and managed using mobile or Web technologies and a network of agents. At a minimum the agents allow clients to cash-in or cash-out physical cash for an electronic currency, which is linked to a client's mobile phone number, bank account or voucher number. Clients can then use a network of agents or their phone or computer to make purchases, take out a loan, buy insurance, pay bills and so on.

Digital financial services are a win–win for consumers and providers. Consumers are able to migrate their money to a more secure environment, transact and manage their account in a more convenient and immediate manner (including after hours and in closer physical proximity), and in a way that frequently saves them money (through more cost-effective remittances services, reduced travel costs, lost cash and so on). Providers are able to access new markets and introduce new services in a way that is cost-effective for small and frequent transactions, improves their operations and core product (for banks, decongesting bank branches and providing additional services to clients; for MNOs creating a "sticky" service to retain customers) and provides new revenue sources such as transaction fees and opportunities for cross-selling. Governments, which want to safely provide the most vulnerable rural populations with conditional cash transfers, may also utilize these electronic payment services and avoid "leakage."

Key Concepts

Providers: Digital financial services initiatives are typically led by a mobile network operator (MNO) (such as Safaricom's role in M-PESA), a bank (such as Banco Postal in Brazil) or other financial institution, a third party (such as Mobile Transactions Zambia), or—increasingly—some combination of the above (such as Equity Bank and Safaricom in Kenya or Globe Telecom and Bank of the Philippine Islands with BanKO).

Channels and devices: Services are typically delivered either through the Web or mobile channel. In many systems, end clients and agents both can manage accounts through these channels. Agents can access the system either through a web portal (by computer), mobile phone or a point of sale (POS) device that uses a mobile SIM. Clients typically interface in person at the agent level, through their mobile and, in some cases, through a computer.

Agent network: The underlying infrastructure that supports cash-in and cash-out services—the gateway for digital financial services transactions. Agents are typically located in retail locations (such as pharmacies, small stores and gas stations) and receive a commission for the services performed.

Definitions

Branchless banking: Branchless banking is the delivery of financial services outside conventional bank branches using information and communications technologies and nonbank retail agents through mobile, ATMs, or POS. This service is most frequently led by banks and allows clients to have access to an individual account at a financial institution.

Mobile money: A catchall term that typically refers to a service that allows users to transact and store electronic value on a dedicated account associated with a mobile phone number, redeemable for cash. Mobile money services are most frequently managed through a mobile wallet. These accounts typically do not accrue interest, are not linked to a personal bank account and do not fall under Central Bank regulation or deposit protection insurance schemes.

Superagents or agent aggregators: These are typically third-party businesses that manage a network of agents. In some cases they exist solely to manage the network, while in other cases they are the wholesale distributors to the small stores or owners of a franchise chain where each franchisee is an agent. Superagent duties may also include customer experience management, training, reporting and, most important, liquidity management. In very large agent networks, up to three levels of superagents can exist, and they earn revenue through fee sharing with their agents on each transaction.

have struggled to replicate the uptake, revenues and sustained client engagement of M-PESA, and, tellingly, 86 percent of all mobile phone owners in that country use mobile money, as compared with the regional average of 23 percent.[6] Challenges in other markets range from restrictive regulation, to low organizational capacity, from fragmented mobile money products in the market, to inadequate financing for marketing activities.[7] Regardless, M-PESA and other systems have inspired a range of institutions—MNOs, banks, and other parties—to integrate the principles of digital financial services into their operations.[8] This has been particularly true in Africa, where landline telephone service and bank branches are often rare and informal services for moving money have their own problems.

As new actors enter the mobile money space or existing institutions expand into new markets, a greater emphasis on rural market development is anticipated, particularly services for base of the pyramid (BOP) clients. Increased activity in this space has already been observed anecdotally by colleagues at the GSMA and banking consultancies.[9] In general, rural markets are considered the “last frontier” for brands and service providers to tackle and while challenges exist, the market opportunity is massive. It is estimated that rural BOP populations total about 2.5 million, and account for between $850 billion and $1 trillion in income.[10] In India alone, purchasing power was estimated to be in the multiple billions of dollars across a range of industry segments; and in sub-Saharan Africa, agriculture accounts for one-third of gross domestic product and three-quarters of employment.[11] For MNOs, 70 percent of all new subscribers come from rural areas.[12]

The rural customer segment has distinct characteristics compared with its urban counterpart. In most countries, agriculture and related activities represent a significant percentage of rural incomes, which typically result in seasonal flows and ebbs of income. Rural actors by definition fall outside urban areas and face greater constraints in terms of distance, travel times and infrastructure development. Most are more tradition bound than urban counterparts and focus on intracommunity relationships, so trust plays a huge role in engaging with them. Rural areas are also known to have lower literacy levels, lower mobile handset penetration rates and poorer network coverage. Finally, rural consumers are typically slower to adopt new brands and products but are also slower to give them up.

To date, specific use cases have prevailed in this market. Domestic remittances (peer-to-peer, or P2P, transfers), flowing from urban to rural markets, are what drove M-PESA’s success. However, this has not had the same level of success in other markets. Where they exist, government-to-person (G2P) or social payments frequently flow into rural areas and represent a commercial opportunity for institutions tasked with delivering them. A positive spillover from this is the subsequent development of systems and infrastructure to support the delivery of these government payments to underserved areas. There has also been an increase in institutions looking to rural areas for market growth and to build out information communication technology enabled networks—including payment systems—to cost-effectively reach these new populations.

However, there are still hierarchies within rural areas. The most remote areas with limited or no network coverage, low incomes and disparate commercial and merchant networks remain unattractive to providers—even M-PESA does not operate outside urban centers in “the horn” in northeastern Kenya.[13] Digital financial services systems will likely need to develop unconventional business models, if the services are offered at all, in the remotest rural areas.

ANALYSIS AND THE STATE OF DIGITAL RURAL FINANCIAL SERVICES

During the last 15 years, Mercy Corps has developed several digital financial services initiatives:

- *Xac, Kompanion, and partner banks.* Mercy Corps has launched and established more than a half dozen microfinance institutions, such as Xac Bank (Mongolia, established 1998), Kompanion (Kyrgyzstan, 2004), and Partner (Bosnia and Herzegovina, 1997). Many of these are the largest and highest-rated institutions in their countries and are independently run and managed. These institutions have recognized that digital services are critical to serving hard-to-reach areas. For example, in 2009 Xac Bank launched a large agent banking service called AMAR and is now servicing tens of thousands of clients through mobile-enabled agents.

- *Bank Andara and AndaraLink.* Bank Andara is a wholesale commercial bank, supporting the market of more than 50,000 microfinance institutions in Indonesia. Established in 2009, Bank Andara provides microfinance institutions (MFIs) with loans, technical assistance and new financial products. As part of Bank Andara's launch, the bank introduced AndraLink, a digital payments platform that enables MFIs to introduce new financial products such as microinsurance and bill pay to their clients, provide real-time settlement, and extend the reach of services beyond their bricks-and-mortar bank branches. Mercy Corps supported the launch of the bank, maintains an equity stake and takes an active role in advising management and the board of directors.
- *BPI Globe BanKO.* BPI Globe BanKO (BanKO) is a joint venture between the Bank of the Philippine Islands, the second-largest bank in the Philippines, Globe Telecom and the Ayala Group. BanKO is a savings bank focused on providing low-income clients with secure and affordable financial services, using mobile as the sole distribution channel. Mercy Corps has been working with BanKO since 2010, providing strategic support on business modeling and product development, as well as market research, marketing and technology funding.
- *Haiti Mobile Money.* After the 2010 earthquake, Mercy Corps began working with MNO Voila to roll out their mobile money product in a way that was inclusive of poor and of rural markets. With support from USAID and other donors, Mercy Corps developed rural merchant infrastructure, liquidity and consumer training, and channeled its own humanitarian payments through the mobile money system. The overarching objective was to develop a basic financial infrastructure that could sustainably support financial inclusion post-NGO activity.
- *Agri-Fin Mobile.* Agri-Fin mobile is a new program supported by the Swiss Agency for Development and Cooperation (SDC), which aims to test and explore new business models and alliances to increase harvests and incomes for smallholder farmers, by bundling mobile financial services with technical services for farmers. Agri-Fin launched in Indonesia, Uganda and Zimbabwe in June 2012 and will expand to five additional countries in 2015.

A range of initiatives outside Mercy Corps have employed specific strategies to serve rural populations. In some cases, these represent an extension of commercial growth into promising markets; in others, a government mandate may drive outreach; and in still others, an innovation specifically targeted to rural populations has taken off. Table 1 outlines some examples and the factors that make them unique.

MERCY CORPS LESSONS FROM THE FIELD

Based on Mercy Corps experiences and market research in Haiti, the Philippines, Indonesia and globally, it has compiled a number of key criteria to keep in mind when launching digital financial services operations in rural areas. It should be noted that these are not universal; context needs to be taken into account in each new market.

Design for a Different Customer

The rural poor are fundamentally different from the poor in other areas. Though they seek access to affordable financial services, providers need new strategies to engage effectively with this market.

Farmers have irregular income flows that typically follow harvests and financing needs that occur in fairly predictable cycles. Mercy Corps has found that quick and easy loan access with flexible repayment terms is successful among farmers, as are tailored savings accounts and crop insurance. Because their incomes are "lumpy," they need ways to defer payments for labor or farming inputs and to pay for their children's education without putting cash at risk.

However, financial services should be seen as one of a number of needs, which are most effectively provided in collaboration. Productivity support and

TABLE 1. EXAMPLES OF GLOBAL PROGRAMS THAT SERVE RURAL POPULATIONS

Name	Location	Description	Rural Element	Notable Strategy
ALIN (Arid Lands Information Network)	Kenya, Tanzania and Uganda	ALIN is an NGO focused on facilitating information between extension workers or intermediaries and arid lands communities.	It is 100 percent rural. ALIN has established Maarifa centers, which are physical hubs that aggregate communities of farmers, providing them with information, and house an M-PESA agent point to provide financing and generate transaction revenue.	Unified rural networks are hard to come by—particularly in sub-Saharan Africa. ALIN offers a point for providers to “plug in” and offers financial services without recruiting and managing individual agents. Providers should also look to networks like these to improve access and trust at a local level. For nonfinancial partners, acting as an agent is a way to generate new revenue.
BanKO and International Rice Research Institute (IRRI)	Philippines	This partnership between BanKO and IRRI involves the integration of IRRI’s nutrient manager app into BanKO’s mobile banking menu.	The program gained 1,500 users after two months. The nutrient manager app offers a precision farming tool for smallholder rice farmers that enables BanKO customers to access fertilizer input recommendations to improve their yields.	BanKO is building trust for phone transactions by creating a relevant and regular experience for farmers tied to BanKO’s brand. By providing information that can increase yields for farmers, BanKO is aiming to mitigate risk among a new and less familiar market segment.
Caixa and Banco Postal	Brazil	Caixa and Banco Postal are two commercial banks that use agent networks to expand reach across Brazil, enabling account opening, bill pay, etc.	Caixa and Banco Postal built an agent in every municipality in Brazil, including hard-to-reach areas of the Amazon.	This initiative was the result of a government push to provide social transfer payments and banks to municipality in Brazil.
Kilimo Salama	Kenya	Kilimo Salama is a weather-index crop insurance delivered via mobile for small holder farmers.	The program has a 100 percent rural focus. Agents are seed distributors.	Kilimo Salama uses the “rails” of M-PESA services to deliver more sophisticated and cost-effective services to farmers.
Mobile Transactions Zambia Limited (MTZL)	Zambia	MTZL is a network of agents, developed and managed as an independent network, that enable money transfers throughout Zambia. Neither senders nor receivers are required to have a mobile phone.	More than 50 percent of MTZL’s agent locations are based outside of urban areas. MTZL recently launched an agricultural voucher program to purchase cotton inputs.	MTZL has developed vouchers specifically for farmers to manage their income received from large agricultural buyers for cotton and seed. MTZL supports a variety of payments across Zambia, including salaries, NGO vouchers, P2P remittances, etc.
M-PESA	Kenya	While not known as a rural service, M-PESA is an example of how rural development can grow from a strong commercial case.	No data exist on the exact number of rural agents, but research from 2010 showed that about 59 percent of rural households were using M-PESA—a significant jump from 29 percent the year before.[14]	M-PESA is an example of a service that has been able to expand to serve the poor as a result of commercial growth.

access to inputs make capital more effective. In a digital ecosystem, this might mean that technical information for farmers is distributed through phones, or a strategic partner might be a network of on-the-ground extension workers to provide training.

Financial products should integrate strategies to overcome barriers related to illiteracy. There are typically higher levels of illiteracy in rural areas and financial literacy may be low, both of which can inhibit effective adoption of services. Digital literacy—particularly understanding the concept of banking through a phone—can be difficult to grasp, although analogous to prepaid airtime. Mercy Corps has found that visual tools are particularly useful in training and can support understanding of even complex technologies and concepts. NGOs or account officers are often well placed to further these efforts, and for older clients a child or grandchild in the household may actually perform the transactions. Mercy Corps' experience shows that a customer must be supported in making a minimum of three transactions before they are able to transact independently.

The guiding rule for rural customer engagement is that trust is key. It is vital that high-quality, trusted agents from the community are selected and that trust is built around a brand. Many unbanked clients are comfortable using the phone for communications purposes, but not for banking transactions. NGOs or village leaders can help to mitigate some of the trust concerns; for example, in Haiti the poor felt more comfortable engaging in the mobile money program because Mercy Corps was involved. It is important not to underestimate the importance of the human element, especially in the digital world, which may need to compete with traditional slower and more insecure methods of moving cash.

The New Rule of Thumb for Agents

The economics of agent networks change in rural areas. Generally, rural agents should make enough on commissions to cover the cost of rent or the cost of labor. If regulation allows and it is contextually prudent, nontraditional networks for agents (such as farm extension workers and agricultural buyers) or product advertising can be used to drive depth, efficiency and uptake.

For money management, a rural agent typically performs more cash-outs than cash-ins as money is transferred from urban areas through P2P or G2P payments. Rural agents struggle with managing their liquidity, as frequent trips to collect cash are required to meet the demand for cash-outs. To manage this, providers can team with microfinance institutions, superagents or aggregators to manage agent channels and provide liquidity. In some cases, the MFI may be the best choice as the agent.

External Factors May Force New Models

Infrastructure changes in rural areas. Mobile phone and Internet penetration are typically lower, which may severely raise costs and/or inhibit the provider's ability to introduce mobile or Internet-based services. For bank-led models, it may be wise to team with an MNO for rural development or look at more human-centered solutions where transaction data may not be real time, but regularly synched as the network allows. One thing to keep in mind is that technology infrastructure is rapidly expanding, and though a system may not be in place today, it may be completely functional in six months.

Regulations also force new models to emerge. In countries where bank account opening is not allowed at the agent level and rural banking penetration is low, typical (that is, transactional) agent models will be of limited use, and the value proposition for rural clients will be reduced. Some banks may introduce roaming employees to register clients, thus avoiding the restrictions. It should also be kept in mind that agent regulation is rapidly expanding as governments become more familiar with nontraditional models.

Government Subsidy Is a Mixed Bag for Providers

Government subsidies, usually in cash, may be high in rural areas and can be either the bane of or a boon for providers. In some cases, they may be viewed as competition for loan products, and a provider should be cautious about lending in these areas. In other cases, banks have a commercial opportunity to manage cash transfer programs and may view distributions contracts as a foundation on which to build additional rural services. For example, a government program may finance the development of a rural agent network, support better user incentives to transact on their phone, or reduce costs by not having to pay agents for accepting cash-ins.

NEXT STEPS FOR THE NEW FRONTIER

Interest is high and experimentation is ripe for expanding digital financial services to rural areas. The challenges associated with operating in rural areas parallel those with traditional services—regulatory limitations, ensuring that transaction volumes are sufficient, developing a service that has a strong value proposition—but several additional questions remain that are particularly pertinent to this subgroup: How can we develop scalable financial and digital literacy programs? What is the appropriate ecosystem of services to drive a valuable user experience on the phone? Who are the best partners to share costs and develop meaningful "bundled" content? As these questions are better understood, there will be greater efficiency to serve these markets.

ENDNOTES

[1] CGAP (2012).

[2] "GSMA MMU Deployments Tracker (2012).

[3] See, among others, CGAP, http://www.cgap.org/p/site/c/template.rc/1.26.15552/; and MIT's report, http://www.mit.edu/~tavneet/M-PESA.pdf.

[4] African Development Bank (2011).

[5] *Telco Magazine* (2012).

[6] World Bank (2012).

[7] See, among others, Harvard, http://www.hks.harvard.edu/m-rcbg/CSRI/publications/report_39_mobile_money_january_09.pdf; and CGAP, http://www.cgap.org/p/site/c/template.rc/1.26.15552/.

[8] Other systems, such as G-cash in the Philippines and Banco Postal in Brazil, launched before M-PESA.

[9] This is the GSM Association, a mobile industry body.

[10] World Economic Forum (2009).

[11] World Bank (2011).

[12] *Wall Street Journal* (2009).

[13] This information is based on a conversation with a former M-PESA executive in the fall of 2011.

[14] Jack and Suri (2010).

REFERENCES

African Development Bank. 2011. http://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/07022012Inflation percent20East percent20Africa percent20- percent20ENG percent20- percent20Internal.pdf.

CGAP. 2012. "The Role of Markets in Rural and Agricultural Finance." Blog post, May 22. http://microfinance.cgap.org/2012/05/22/the-role-of-markets-in-rural-and-agricultural-finance/.

"GSMA MMU Deployments Tracker." 2012. June 19. http://www.wirelessintelligence.com/mobile-money/unbanked/

Jack, William, and Tavneet Suri. 2010. "The Economics of M-PESA: An Update." October. http://www.mit.edu/~tavneet/M-PESA_Update.pdf.

Telco Magazine. 2012. April. http://www.telecomengine.com/article/mobile-money-takes-different-forms-africa-japan-us.

Wall Street Journal. 2009. July 1 http://online.wsj.com/article/SB124643327175778655.html.

World Bank. 2011. "ICT in Agriculture Sourcebook." http://www.ictinagriculture.org/ictinag/content/ict-agriculture-sourcebook.

———. 2012. Global FINDEX database report. http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2012/04/19/00015834_20120419083611/Rendered/PDF/WPS6025.pdf

World Economic Forum. 2009. "The Next Billions: Business Strategies to Enhance Food Value Chains and Empower the Poor."