CGAP

FOCUS NOTE

No. 88
August 2013

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Microfinance and Mobile Banking: Blurring the Lines?

In January 2012 a new banking business was about to emerge in the Philippines. After being in the wholesale microfinance lending business for two years, BanKO (which is licensed as a savings and thrift bank) was ready to jump into retail microfinance by using the mobile phone as its main channel. With years of experience at Bank of the Philippine Islands (BPI), Chief Executive Officer (CEO) Teresita Tan knew all too well the high cost of branch operations and recognized that leveraging the mobile phone would be critical to successfully establishing a low-cost business that was scalable.[1] What emerged was a new microfinance bank that offered customers payment, savings, credit, and insurance products accessible primarily over the mobile phone and at BanKO's 2,000 partner outlets. As a customer builds a savings history, she qualifies for loans that are directly disbursed into her BanKO account without any prior in-person due diligence.

BanKO represents a new business model that has emerged over the past few years since CGAP first wrote about the intersection of microfinance and mobile banking (m-banking).[2,3] However, at this point, BanKO is an exception. Most microfinance institutions (MFIs) are still grappling with how best to leverage m-banking for their own operations based on their own legal and regulatory frameworks and operational contexts.[4] This paper explores the latest evidence of how m-banking impacts the way MFIs carry out their core business and serve their customers, as well as the new business models that are emerging.

Before turning to the latest evidence from MFIs using m-banking, it is worth providing a current overview of the m-banking industry. According to the GSMA's 2012 Mobile Money for the Unbanked Global Mobile Money Adoption Survey, there are currently 150 live mobile money deployments in 72 countries, with 41 deployments having launched in 2012 alone.[5] Eighty-two million customers are registered globally, 30 million of which have active accounts.[6] These services use 520,000 mobile money agents to carry out customer transactions. While 61 percent of the volume of mobile money transactions is airtime top-ups, 82 percent of the value of transactions is person-to-person (P2P) transfers.

These numbers clearly demonstrate the continued growth of the mobile money industry, yet there remain key obstacles to its sustained growth and to the value it brings to the poor and unbanked. Effective agent network management continues to be difficult to operationalize. Many agents have difficulty finding a strong business case in mobile money and have unexpected costs around liquidity management. Only 63 percent of registered agents are considered active.[7] While customers may register for the new service, many of them do not continue transacting or transact only occasionally. As a result, many deployments find themselves with a large, inactive customer base and are at a loss as to how to incentivize these customers to be more active. In fact, only six mobile money providers have managed to accumulate more than 1 million active customers.

1 Information on BanKO is from an interview with CEO Teresita Tan in December 2012 and subsequent communication through June 2013.
2 In this paper, mobile banking is used in the broadest sense of the term, incorporating mobile payments and mobile money. It is recognized that many services, such as M-PESA in Kenya, are effectively mobile *payments*. Mobile platforms refer to the specific technology platforms used. Furthermore, the scope of this paper is m-banking as opposed to branchless banking, which incorporates other technology channels, such as cards, point-of-sale devices, and automated teller machines. The paper focuses only on the use of the mobile device for financial transactions and not for nonfinancial transactions, such as data collection or repayment reminders.
3 See Kumar, McKay, and Rotman (2010).
4 In this paper, MFIs are broadly defined as any formal financial institution providing at least credit to primarily low-income customers. This ranges from credit-only nongovernment organizations to nonbank financial institutions, microfinance banks, and commercial banks, to the extent they focus on microfinance operations.
5 http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2013/02/MMU_State_of_industry.pdf
6 The GSMA estimate is based on the following definition of active accounts: those that have performed at least one person-to-person transfer, bill payment, bulk payment, airtime top-up, cash-in, or cash-out in the preceding 30-, 60-, or 90-day period. Where providers supplied activity rates for more than one timeframe, GSMA used the broadest timeframe.
7 Over 60 percent of GSMA's survey participants define an active agent as having done at least one financial transaction in the past 30 days.

This paper aims to answer the following questions:

- Section 1: What options do MFIs have to leverage m-banking for microfinance transactions?
- Section 2: What have been the experiences of MFIs that have served as agents for m-banking systems?
- Section 3: Are there benefits for MFIs and their customers from m-banking?
- Section 4: Why have some MFIs made the strategic decision to hold off on m-banking?
- Section 5: How has m-banking created opportunities for new innovative microfinance business models to emerge?

The research methodology consisted of interviews with selected MFIs that have experimented with or fully implemented m-banking into their microfinance operations. Some of these MFIs are the same ones that were studied in CGAP's last paper on the topic with the intent of learning from their activities over the past several years. The other MFIs included in the study are new to m-banking. In contrast to the last paper, where the number of relevant MFIs was limited, for this paper, there were many more MFIs that could have been profiled than space allows. Box 1 summarizes the main findings of the paper.

Box 1. Main Findings

- There is no evidence that MFIs or their customers are driving the development of m-banking in a market.
- MFIs that are successfully leveraging m-banking tend to be in countries where an m-banking service is already widely used. In such markets, MFI customers may even expect or demand their MFI to offer m-banking as a repayment option.
- The benefits of m-banking services to MFIs largely depend on the success of the existing m-banking service itself. In markets where m-banking is strong, MFIs and their customers can more easily benefit.
- MFIs are currently using m-banking most often for loan repayments. More MFIs are using m-banking for savings mobilization than for loan disbursements.[a] Typical concerns from MFIs about m-banking, namely how it will affect group dynamics and repayment rates, how management information system reconciliation will occur, and how customers and staff will adjust to new payment options, have all proven to be manageable by MFIs.
- MFIs are generally not well placed to build their own m-banking system and should instead look to leverage existing services.
- The evidence to date shows mixed results from MFIs serving as agents for m-banking systems, primarily due to liquidity management costs and commission incentive structures.
- There is no real evidence of MFIs reaching customers in new geographies or lower income segments through m-banking. There is qualitative evidence of MFIs using m-banking to gain a competitive advantage; however, this advantage is likely to diminish as more MFIs begin integrating m-banking into their operations.
- The extent to which operational costs are reduced for an MFI that uses m-banking depends on whether the MFI has already transferred the cost of loan repayments to the borrower. Likewise, the extent to which savings mobilization through m-banking is effective in lowering the cost of funds for an MFI depends, in part, on whether the MFI or the customer pays the transaction fee.
- There is increasing evidence to show that MFI customers value the time and cost savings of m-banking for loan repayments and are better served by having the option to repay through m-banking.
- One of the biggest determinants of the customer repayment choice is something as simple as agent proximity compared to branch proximity.
- Even in a country with a viable m-banking service, there may be institutional or market-specific reasons to postpone the integration of m-banking. A deteriorating loan portfolio is one example.
- New MFIs should consider going the m-banking route from the beginning to avoid the costs and challenges of change management and to ensure that the investment in m-banking replaces other costs, rather than adding to the parallel costs of cash.
- One of the biggest recent advances in the intersection between microfinance and m-banking has come from new microfinance business models that leverage mobile phones and agents for loan applications, customer due diligence, and credit decision-making.

a. According to a recent survey by Triple Jump Advisory Services (2013).

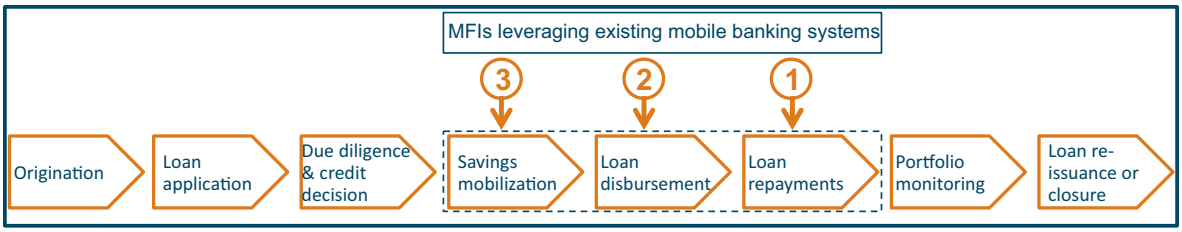
1. What Options Do MFIs Have to Leverage M-Banking for Microfinance Transactions?

Figure 1 illustrates a traditional microfinance business process. While not intended to capture the intricacies of all microfinance models, it is useful to identify where m-banking plays a role in microfinance. To date, the three main areas where m-banking has impacted MFIs most have been loan repayments, loan disbursements, and savings mobilization. In contrast, new microfinance business models, as discussed in Section 5, are innovating across the business process.

MFIs tend to pursue one of two distinct strategies in leveraging m-banking systems, each with different implications for the level of investment required and functionality offered to customers. (These two broad strategies are not exhaustive, but do represent the most common approaches pursued by MFIs to date.) The first strategy involves simply using the bill pay functionality of the existing m-banking provider and its agent network to facilitate loan repayments and/or savings mobilization, or the bulk payments functionality to facilitate loan disbursements. In this arrangement, the MFI uses its own bill pay code just like a water or gas company would use its own code to receive bill payments through mobile money. This strategy is the quickest way for an MFI to leverage m-banking and requires the lowest level of investment since the MFI can import the data and do manual reconciliation. An MFI can also choose to invest in "middleware" that automates the process of uploading and reconciling the repayment data from the m-banking platform into the MFI's management information system (MIS)—middleware could also be used to upload and reconcile loan disbursement and savings data. According to some technology providers, this middleware in Kenya costs between US$10,000 and US$20,000, depending on the level of automation and the nature of the MFI's MIS. Automation becomes more attractive as the number of customers using the m-banking system for MFI transactions increases, as a lack of automation can hamper growth.

The second strategy involves the MFI investing in technology that links customers' mobile wallets (m-wallets) to their MFI accounts. This allows customers to access their MFI accounts via their mobile phones and to move money between the account and m-wallet.[8] The MFI leverages the agent network of the existing m-banking provider to facilitate cash-in and cash-out[9] transactions into the customer's m-wallet and subsequently into the MFI account. This option may provide the more attractive solution for MFIs trying to mobilize savings than the first strategy since savings transferred into the MFI account are still accessible through the customer's m-wallet and at the existing m-banking provider's

Figure 1. A traditional microfinance business process



8 This is most often done by an MFI procuring its own USSD (Unstructured Supplementary Service Data) code. That is, a string of digits typically starting with an asterisk and ending with the number sign (e.g., *2427#). USSD is one of the most effective communication channels for mobile payments. It is known to be more secure and user friendly than SMS, but unlike web-based applications it is available on even basic handsets. This option is not exclusive to USSD, and could similarly be applied to an MFI using SMS or the Internet to link their customers' existing m-wallets to their customers' MFI accounts.

9 Cash-in transactions facilitate loan repayments and savings mobilization, while cash-out transactions facilitate loan disbursements and access to the savings.

agent network.[10] In a relatively mature m-payments market like Kenya where several technology companies compete to provide these services to the many financial institutions that link to M-PESA, an MFI with a robust MIS would need to invest between US$50,000 and US$100,000 to pursue this option, according to some technology providers. The cost for the first movers in other markets could be higher, but is likely to decrease over time as the technology and integration processes become more standardized. A number of MFIs in Kenya have transitioned over time from pursuing the first strategy to pursuing the second, allowing for more functionality between customers' m-wallets and their MFI accounts.

It is worth keeping these two strategies in mind when considering the experiences of MFIs leveraging existing m-banking systems.

Loan repayments

Where there is an existing widely used m-banking system with an extensive well-functioning agent network, accepting loan repayments is arguably the quickest win for MFIs. There are three things that typically concern an MFI's management about introducing this repayment option: how will it affect group dynamics and repayment discipline; how will MIS reconciliation occur; and how will customers and staff, specifically loan officers, adjust to new procedures?

SMEP DTM Limited is a Kenyan MFI that offers its 168,000 customers the ability to use M-PESA for loan repayments, loan disbursements, and savings mobilization.[11] SMEP DTM initially started out in 2009 merely using the M-PESA bill pay functionality. The MFI had all of the common concerns about the potential impact on group cohesion, and therefore repayment rates, and whether mobile repayments would increase efficiency or complicate the lives of the loan officers by introducing time-consuming manual reconciliation processes. After several years of experience, SMEP DTM reports that despite reducing the frequency of group meetings from weekly to monthly, customers have successfully made the transition without negatively impacting repayment performance. Some group members still pay weekly, others pay monthly before the meeting, while others pay at the meetings themselves.[12] The ability to pay whenever it is convenient to do so as well as, in some cases, less frequent meetings are both considered significant benefits by customers.

To overcome concerns with manual reconciliation, SMEP DTM invested in a middleware that better integrates its MIS with M-PESA. This has significantly reduced the requirement for manual reconciliation and eased loan officers' concerns. Loan officers now more fully support the use of M-PESA, which has had a positive influence on the willingness of group members to also adopt this payment option. The remuneration of loan officers often depends on the size and quality of their portfolio, so putting incentives in place to ensure that loan officers can benefit from the efficiency that m-banking brings is in both the MFI's and loan officer's interest.[13]

Faulu Kenya Deposit Taking Micro-Finance Limited introduced m-banking for two main reasons: customer demand and cost savings.[14] Before offering loan repayments via M-PESA, group customers went through a lengthy repayment process that involved depositing cash into a Faulu account at a commercial bank branch and attaching the deposit slip to the repayment form to present at a Faulu branch or group meeting. Now customers can repay loans or make

10 The first strategy can be used to mobilize savings by allowing customers to use the bill pay functionality to transfer funds into the MFI account. However, customers would not be able to leverage the mobile phone or the existing m-banking provider's agent network to access those funds in the MFI account.

11 Information on SMEP DTM is from a meeting between CGAP consultant Tony Oyier and SMEP DTM in January 2013, as well as subsequent communication through June 2013.

12 Some groups make repayments using a single mobile phone, whereby the group head receives money from the group members into his M-PESA wallet, and then deposits money from his M-PESA wallet into the different member's SMEP DTM accounts.

13 Interview with George Kinyanjui in November 2012, as well as subsequent communication through June 2013. Kinyanjui has consulted for several MFIs, including SMEP DTM, in their transition to m-banking.

14 Information on Faulu is from an interview with ICT Manager Kennedy Kipkemboi in August 2012, and subsequent communication through June 2013.

deposits using their mobile phone through M-PESA. In line with group policy, meetings of the same frequency and length are still required. To ensure the ongoing stability of the groups and to manage the quality of the portfolio, Faulu continues to provide financial education programs for its customers. Within two years of launching this service in December 2010, almost 54 percent of Faulu's 300,000 customers had registered for m-banking, although only 15,000 of these customers were using the service regularly.[15] Those that were using the service were very active, on average doing more than 10 transactions per month, including balance enquiries and mini-statements.

Loan disbursements

While a number of MFIs are leveraging m-banking for loan disbursements, the high average value of loan disbursements compared to loan repayments can raise two issues. The first is whether agents can handle these larger transactions, given liquidity constraints, and the second is whether transaction limits of m-banking services may be too low for some loans.[16]

Musoni is a Kenyan MFI that claims to be the first MFI in the world to have gone completely cashless. By April 2013, it had about 10,000 customers and had disbursed more than US$6.3 million in loans.[17,18,19] In addition to all loan repayments being done via M-PESA, Musoni also disburses all loans through M-PESA. However, research conducted with Musoni customers in 2011 described liquidity constraints at agents. Many agents found it difficult to pay out more than US$58–116 per customer, while Musoni's loan products range from US$58 to US$2,316 (Sadana et al. 2011).[20] As a result, customers wanting to withdraw the full loan amount had to withdraw from multiple agents, reducing convenience and increasing the cost. While Musoni covers the loan disbursement fee of US$0.35 charged by Safaricom to credit customers' accounts, customers are required to pay the US$0.29 fee for each cash-out (Cracknell 2012). Furthermore, splitting the transaction among numerous agents may not fully solve the problem in areas where MFI customers are concentrated among only a few agents.

SMEP DTM also leverages M-PESA to disburse loans; however, its approach is less direct. SMEP DTM disburses a loan into a customer's SMEP DTM account from where the customer can use SMEP DTM's m-banking solution to transfer funds into his or her M-PESA m-wallet to withdraw at an agent or ATM. Between US$34,700 and US$46,300 is withdrawn from SMEP DTM accounts using M-PESA on a daily basis—double the amount that gets transferred from M-PESA to SMEP DTM for loan repayments and savings. This suggests that customers value access to their funds outside of SMEP DTM branches through the SMEP DTM m-banking functionality.

Prior to leveraging M-PESA for loan disbursements, SMEP DTM relied on checks that cost US$0.64 each. While the Safaricom disbursement fee of US$0.35 already offers a 45 percent savings, additional savings to the MFI come from reduced staff costs. Reconciling bank statements from checks required two full-time accountants, who are no longer required for mobile disbursements. For customers, funds are available immediately because they do not need to wait for the checks to clear. M-banking can, however, still require some level of manual intervention typically caused by customers changing their mobile numbers or errors that occur when entering customer account details. Even in the case of Musoni, which was specifically designed to work with the M-PESA system, 7–8

15 http://www.nation.co.ke/business/news/-/1006/1065316/-/5kkxr3z/-/index.html
16 These transaction limits would typically be introduced for regulatory purposes, related to risk management and anti-money laundering and combating the financing of terrorism (AML/CFT).
17 http://www.economist.com/blogs/schumpeter/2013/02/microfinance (accessed 11 April 2013).
18 Information on Musoni is from an interview with Chief Finance Officer James Owino in August 2012, as well as subsequent communication through June 2013.
19 Throughout this paper an exchange rate of 1 US$ = Ksh. 86.36 has been used (average exchange rate for year to 18 April 2013). Source: http://www.centralbank.go.ke
20 http://www.musoni.co.ke/index.php/products (accessed 11 April 2013).

percent of transactions require manual intervention (Cracknell 2012).[21]

Savings mobilization

Kenya Women Finance Trust (KWFT), a deposit-taking MFI, has linked its accounts to M-PESA m-wallets as a way to more easily capture deposits.[22] KWFT estimates that in the first seven months of operating under this system, 30 percent of its total deposit base came from customers transferring funds into their KWFT accounts using M-PESA. SMEP DTM is also successfully leveraging M-PESA to mobilize deposits. In January 2013, between US$17,400 and US$23,200 was transferred from M-PESA to SMEP DTM per day. While these amounts include loan repayments, it represents 30–40 percent of total customer deposits into savings accounts.

Even outside of Kenya, m-banking is being used for savings mobilization. BRAC, one of the world's largest microfinance lenders, began a pilot in Bangladesh in December 2012 among 12 branches offering the mobile payments service bKash as a way to make deposits into their BRAC savings account.[23,24] Among the registered monthly account holders in these branches, 28 percent were using bKash to make deposits within the first three months of the pilot. Reconciliation with the BRAC MIS is manual, but has not proven to be laborious enough to invest in a middleware. BRAC pays the bKash transfer costs on behalf of customers since BRAC sees the value in getting more savers into the system and subsequently a lower cost of capital.

In summary, there are increasing examples of MFIs leveraging m-banking to facilitate loan repayments. MFIs, most notably in Kenya, are also having success using m-banking to mobilize additional savings. Fewer MFIs use m-banking to facilitate loan disbursements, and those that do continue to experience agent liquidity challenges. Typical concerns from MFIs about m-banking, namely how it will affect group dynamics and repayment rates, how MIS reconciliation will occur, and how customers and staff will adjust to new payment options, have all proven to be manageable by MFIs. As Box 2 explains, it remains difficult for MFIs to build their own m-banking systems.

2. What Have Been the Experiences of MFIs That Have Served as Agents for M-Banking Systems?

Evidence to date shows mixed results from MFIs serving as agents for m-banking systems. This is due to two defining characteristics of MFI branch networks. First, although many MFIs may have the largest branch network among any other financial institution in a country, an MFI will have at best a total of 200–300 locations. While an MFI can make a significant contribution to an agent network, an agent network needs to number in the thousands before it can be considered significant in scale. Second, since commissions are likely to be collected by MFI headquarters, there is a lack of incentive for the branch teller to push the m-banking product. While some MFIs have changed the way agent commissions are shared throughout their branch network, it is usually not as direct as an independent agent that receives commissions directly from transactions and is incentivized to invest the time to show customers how to use the service.

Kafo Jiginew, one of the largest MFIs in Mali with 280,000 depositors and 46,000 borrowers,[25] has used 102 of its 169 branches as Orange Money agents since Orange Money launched in 2009.[26] The main advantage for Orange is that this partnership brings over a 100 new agent points into its network through one single negotiation with Kafo Jiginew's management. Orange

21 This figure was from 2012 and was reportedly decreasing at the time.
22 Information on KWFT is from a meeting among Tony Oyier (CGAP consultant), Isabella Nyambura (assistant to the MD), and Christine Mwea (general manager, Liabilities) in January 2013, as well as subsequent communication through June 2013.
23 bKash is an m-banking service that operates as a subsidiary of BRAC Bank and began operations in July 2011.
24 Information on the BRAC savings pilot is from Sazzad Hossain (BRAC) and Greg Chen (CGAP).
25 Mix Market, as of April 2013.
26 Information on Kafo Jiginew and Orange Money come from interviews with Deputy General Director David Dao of Kafo Jiginew and Head of the Distribution and Commercial Division Hawa Diallo Toure of Orange Money Mali in January 2013, and subsequent communication through June 2013.

Box 2: Should MFIs Build Their Own M-Banking System?

While it may be tempting for an MFI operating in a market without any viable m-banking service to build its own m-banking system, experience suggests that the core capabilities required to successfully run an MFI are not well-aligned to the technical requirements needed to develop an m-banking system or the competencies necessary to manage the associated agent network. Even if funds were available to invest, many MFIs do not have the necessary scale to justify the sizeable upfront investment for m-banking. Many MFIs also lack a strong core banking IT infrastructure. Furthermore, an MFI would need to be very clear on the strategic objective of the m-banking service and be convinced that m-banking was the best way to address the institution's particular issues.

Opportunity International Bank in Malawi (OIBM), featured in Kumar, McKay, and Rotman (2010), launched its own m-banking service, Banki M'manja, in May 2010.[a] Despite gaining regulatory approval in November 2011, OIBM has yet to build an agent network.[b] Banki M'manja simply offers account information services, airtime top-ups, bill payments, and fund transfer services to other OIBM customers. While these services do allow OIBM to lower operational costs associated with these transactions, earn some revenue from transaction fees and commissions, and achieve some level of branch decongestion, it has not enabled OIBM or its customers to realize the full potential of the initiative. For example, the Banki M'manja system does not facilitate loan repayments or savings mobilization. OIBM managed to double its deposit accounts between the end of 2009 and September 2012 to over 500,000, according to MIX Market. But with only 60,000 registered Banki M'manja customers, and of these only 20 percent active, it is unlikely that m-banking was the driving force behind this gain in deposit accounts.

Almost two-and-a-half years after the launch of Banki M'manja, Airtel Money relaunched in Malawi with over 5,000 agents (1,800–2,000 of these agents are active). OIBM has been quick to link to the system and allow its Banki M'manja customers to do loan repayments and savings mobilization through these agents. In this respect, OIBM has transitioned from trying to build its own m-banking system, inclusive of an agent network, to leveraging an existing m-banking system for microfinance transactions.

a. Information on OIBM is from an interview with Chief Transformation Officer Luckwell Ng'ambi in November 2012, and again in April 2013 with Luckwell Ng'ambi and MIS Manager Lumbani Manda.
b. Operating conditions in Malawi have been challenging since OIBM launched m-banking, with fuel and foreign currency shortages notable examples of the obstacles faced.

can therefore bypass the lengthy and laborious one-on-one negotiations that are often required with independent agents. Orange also benefits from the added rural coverage that the Kafo Jiginew branches bring. While MFIs do handle a meaningful volume of Orange Money transactions, perhaps due to the lack of direct incentives, MFIs do not represent the most active agents within Orange's network. The most transactional activity comes from an independent super-agent that shares commissions with the subagents it manages.

There are also costs and benefits for the MFI. For Kafo Jiginew, a partnership with the leading mobile network operator (MNO) in Mali was an important strategic alliance that differentiated it from its competition. For similar reasons, the largest MFI in Senegal, CMS, uses its 200 branches for Societe Generale Banque du Senegal's Yoban'tel m-wallet. An alliance with a strong bank, such as Societe Generale, was reason enough to join the partnership. But beyond optics, Kafo Jiginew also saw its work with Orange Money as a way to begin to diversify its product offering, which the institution identified a few years earlier as an important objective. Revenue from commissions on Orange Money transactions was also an important factor for the MFI's management. In 2011, Kafo Jiginew earned commissions worth US$17,500; in 2012, it earned US$42,300, and during the first five months of 2013, it earned US$40,000.[27] However, this partnership has had its challenges for Kafo Jiginew—the largest being ongoing liquidity management, which ultimately affects Orange's ability to maintain quality customer service at agent points. There is

27 Exchange rate of 1 US$ = 487.750 FCFA as of 18 June 2013. Source: www.bceao.int

also a competitive issue for MFIs to consider. An MFI acting as an agent may result in customers of competitor MFIs using the agent MFI's branches to make loan repayments. This presents an interesting opportunity for the agent MFI to attract customers away from its competition.

Serving as an agent for an m-banking service does not necessarily lead the MFI to offer the service to its customers for loan repayments. On the one hand, this is logical if the agent network extends only as far as the MFI branch network. This would add little value to customers in terms of convenience since the closest access point to do cash-in, whether paying in cash or through m-banking, would still be the MFI branch. On the other hand, in cases where agents extend beyond the MFI branch network, it is surprising that serving as an agent is not used more as an on-ramp by the MFI to begin offering such a service to its own customers.

One example is Tameer Microfinance Bank, which has one of the closest relationships with an m-banking service that an MFI could have. A controlling stake of Tameer was acquired by Telenor, the MNO with which it launched the m-payment service EasyPaisa.[28] Even in the four years since the launch of EasyPaisa in 2009, there is little crossover between the use of EasyPaisa by Tameer microfinance customers. While Tameer branches are used to sign up new EasyPaisa customers and carry out cash-in and cash-out transactions, EasyPaisa is not used for loan repayments or loan disbursements by Tameer customers. Tameer suffered extremely high default rates—as high as 25 percent—when it first began operating as a microfinance bank in 2005 because it took a hands-off approach to customer identification and monitoring. It quickly learned that the market needed clear criteria for customer selection. Once on board, the loan customer needed ongoing management through dedicated relationship officers to retain repayment discipline. Tameer's default rate for unsecured loans is now less than 0.5 percent, and there is some apprehension to change this model by introducing a new repayment channel. Microfinance banks in Pakistan tend to shy away from taking any risk with customer repayment processes, as minor delinquencies can severely impact margins.[29] As a number of MFIs in Kenya have demonstrated, however, group dynamics and repayment discipline need not be negatively impacted. Tameer is preparing to undertake a pilot in select branches in the third quarter of 2013 to begin to introduce EasyPaisa into the loan repayment process.

There are other roles that MFIs can play related to the agent network besides being the agents themselves. bKash in Bangladesh relied on the BRAC nongovernment organization (NGO) for early agent recruitment, identification, and liquidity management. This was a formal partnership whereby bKash paid BRAC NGO to acquire 5,600 agents and manage its liquidity for the first year of operations. These initial agents were chosen from among BRAC's individual loan borrowers, a customer base with which it had direct and close contact. Direct management of the agent network was passed onto bKash after this initial period, enabling bKash to establish an early agent network much faster than would have been otherwise possible.

In summary, MFIs and m-banking services should together consider more strategically how MFIs can best serve as m-banking agents. Perhaps MFI branches are better used for new customer registrations and less for cash-in and cash-out to avoid liquidity management problems. Perhaps some MFIs can offer just cash-in transactions, while other MFIs have the capacity to manage agent points from among their customer base. Overall, it appears that the role of MFIs as agents for m-banking services may be less prominent based on the experiences from the past few years.

28 Information on Tameer Microfinance Bank comes from conversations with Deputy CEO Tariq Mohar in December 2012, and subsequent communication through June 2013.

29 Microfinance banks are regulated by the State Bank of Pakistan under a strict credit regime. Default is recognized at 30 days past due (dpd), leading to the suspension of all income on loans. At 60 dpd, the loss provision is taken for 25 percent of the outstanding principal. At 180 dpd, loss against the whole outstanding amount is provisioned and the account is written off from the active ledger.

3. Are There Benefits for MFIs and Their Customers From M-Banking?

Kumar, McKay, and Rotman (2010) explored three potential benefits of m-banking for an MFI, each of which will be revisited in this section: (*i*) reaching new customers; (*ii*) improving the economics for the MFI; and (*iii*) serving existing customers better.

Reaching new customers

M-banking could help MFIs grow their customer base in three main ways: MFIs could *reach new geographies*; early-adopting MFIs could improve the customer value proposition and attract *new customers from the current target market*[30]; and/or MFIs could *reach new, lower-income segments* by providing more affordable services.

There is no clear evidence that MFIs have been able to leverage m-banking to reach a significant number of new customers in new geographies or from lower-income segments. Reaching lower-income segments would depend in part on a meaningful reduction in the operational costs of the institution, which is itself a complicated picture as the next section indicates. If there has been any increase in customer growth, Faulu believes it has come from satisfied customers marketing their services to peers who are either not yet microfinance customers or customers of another MFI.

Improving the economics for the MFI

There are both costs and benefits associated with the use of m-banking by MFIs.

Technology investment. Any MFI looking to offer a customized m-banking solution to its customers, whether leveraging an existing m-banking solution or not, will need to invest in appropriate technology. Given the complexities in choosing a technology provider and implementing a solution, unforeseen costs are likely to emerge. OIBM is currently changing its technology provider and is in the process of writing off its earlier investment.

Cost of funds. There is evidence from Kenya to suggest that leveraging an existing, widely used m-banking system can be effective in mobilizing deposits. As previously mentioned, KWFT mobilized 30 percent of its total savings from M-PESA-linked deposits from June through December 2012. Similarly, SMEP DTM receives 30–40 percent of its total savings deposits per day via M-PESA. The extent to which this is effective in lowering the cost of funds depends on whether the customer or the MFI pays the US$0.35 transaction fee charged by M-PESA and the percentage of the average deposit that this transaction fee represents. It also depends on how long the deposits remain in the MFI accounts and the interest rate differential between what the MFI pays for wholesale funding versus what its pays on deposits. SMEP DTM is convinced that deposits received from customers through M-PESA are a cheaper source of funding.[31]

Operational costs. M-banking can have a significant impact on the human resource costs of an MFI, especially in the medium-to-long term. Automation can reduce the need for data capturers at the head office and can free up loan officers to grow their portfolios, as was the case with SMEP DTM. SMEP DTM loan officers also benefited from the reduced group meeting schedule. However, MFIs that choose to leave their meeting length and frequency unchanged will not fully realize this cost reduction. M-banking can also bring its own set of costs. Operational costs have increased for KWFT due to the fees associated with access to a USSD channel, as well as the need to open a 24-hour call center to respond to customer inquiries about the new m-banking service. For those MFIs, such as Faulu, that choose to subsidize the transaction fees charged by the existing m-banking provider, this could also be a significant increase in operational costs.

The extent to which operational costs are reduced also depends on whether the MFI has already transferred the cost of the loan repayment to the

30 New customers could either be new microfinance customers or customers from the competition.
31 In the case of SMEP DTM, the customer bears the M-PESA transaction fee, whereas KWFT bears this cost on behalf of its customers.

borrower. Due to security, fraud, administrative error, and ultimately cost, many MFIs already require borrowers to independently make loan repayments, moving this burden away from the loan officer. In these instances, the time and cost reduction would accrue to the customer rather than to the MFI.

Operational revenues. M-banking can also generate transaction fees and commission revenue for MFIs that invest in m-banking technology that allows customers to access their MFI accounts through the mobile channel. Faulu charges for mini statements, balance enquiries, transfers from a Faulu account into an M-PESA wallet, and transfers to other Faulu accounts. However, there is no strong evidence to suggest that these revenue streams are significant at this stage, with KWFT merely noting that they are "net positive."

Serving existing customers better

In countries where m-banking is already well-established, customer demand may drive MFIs to introduce m-banking. In Kenya, a number of MFIs cited customer demand as a driving factor for investing in m-banking. According to SMEP DTM, m-banking is now seen as a basic service that is expected from customers. Not providing this service would have led to a loss of customers and reputation. As m-banking becomes more pervasive in other countries, this pressure from customers is likely to become more common.

While there is no evidence of MFIs driving the development of the m-banking industry in a country, a recent BRAC pilot using bKash for loan repayments shows that even customers in a country without a pervasive m-banking system can come to value the benefits of m-banking for microfinance transactions (see Box 3 for further details on the pilot). Follow-up research with pilot customers provides insight into what influences customer uptake of m-banking for microfinance transactions. First, the biggest determination of the choices customers made among their repayment options seemed to be as simple as agent proximity compared to the branch. Saving 15 minutes each way in travel time was convincing enough to customers to continue using a bKash agent instead of a BRAC branch.

Second, those that continued to use bKash, either exclusively or alternating with the branch system, had more knowledge of the service offerings of bKash. They knew that bKash could be used for more than just loan repayments, such as for transfers, bill payments, and airtime top-up, although only a minority availed themselves of these additional services.

Third, a certain comfort level with the m-banking system was important. Some customers who stopped using bKash said it was because they did not know how to operate transactions over their mobile phones, and most of these said that they relied on the agents to help them carry out transactions.

This pilot provides evidence from only one MFI in one country; nonetheless it provides a useful benchmark on how m-banking can serve existing customers better. It also highlights the need for deeper customer engagement on this topic in a variety of contexts to develop the microfinance industry's understanding of the potential of m-banking as a tool to serve customers better.

To summarize these three sections on benefits, there is no real evidence of MFIs reaching customers in new geographies or lower-income segments through m-banking. There is qualitative evidence of MFIs using m-banking to gain a competitive advantage; however, this advantage is likely to diminish as more MFIs begin integrating m-banking into their operations. The calculation of MFI economics is complex and depends on a number of decisions each MFI takes along the way. While there is evidence of specific cost savings, such as time savings for MFI loan officers, more detailed and holistic work on how the institutional business case plays out is required. In fact, most MFIs would be well-served to track the costs and revenues associated with m-banking more carefully. As demonstrated by the BRAC–bKash pilot, there is increasing evidence to show that MFI customers value the time and cost savings of m-banking for loan repayments and are better served by having the option to repay through m-banking.

Box 3: BRAC Pilot with bKash

Beginning in November 2011, BRAC started a pilot to test loan repayments for small business borrowers using bKash. This was rolled out in five urban branches among roughly 3,000 individual loan borrowers. All borrowers were required to make loan repayments over a bKash mobile account, but were not charged any fees.[a] After eight months of required bKash use, customers were given the choice of repaying with bKash or switching back to the traditional branch option. In the subsequent three months, 42 percent of customers alternated between using bKash and the branch, 21 percent used bKash exclusively, and 37 percent used the branch exclusively.

Why did customers make these payment choices?[b]

Customers who continued repaying with bKash. Eighty-two percent of customers in this group said that they continued to use bKash because either the agent was closer than the BRAC branch or because it meant less time away from home or work. An agent was, on average, 1.7 kilometers closer than a branch, translating into a time savings of 15 minutes each way. Use of bKash for other purposes did not seem to be a major driving factor. Sixty-five percent did not use bKash for anything beyond their BRAC loan repayment even though 82 percent knew of other uses. Customers were happy using bKash for loan repayments, but indicated that they would reconsider using bKash if fees were introduced.

Customers who stopped repaying with bKash. Thirty-eight percent of customers in this group switched back to paying at the branch because they did not feel comfortable with the bKash technology and another 38 percent because they had problems with the agents. On average, these customers used agents that were only 0.7 kilometers closer than a branch, translating into a time savings of seven minutes each way. Customers indicated that they spent only US$0.12–US$0.25[c] on transportation costs to arrive at the branch and that they would often go to the area where the branch was located for other reasons, thus eliminating the slight distance advantage of agents. In contrast to those customers who chose to continue using bKash, 62 percent of customers were not aware that bKash could be used for anything other than making a BRAC loan repayment. Almost all of the customers (85 percent) said that the main change that would influence them to use bKash again would be to receive a paper receipt, as opposed to just the SMS confirmation.

Customers who alternated between repaying with bKash and at a branch. The reasons for alternating varied. Seventeen percent had a problem with the agent; 33 percent used the branch when they happened to be nearby; and 28 percent simply liked the flexibility of having both options. But the main reason why customers continued to use bKash was that either the agent was closer than the branch or it meant less time away from home or work.

a. At the time the pilot began, bKash had been operational for only four months. All of its agents were still new to m-banking and almost none of the customers had previously done any m-banking transactions. This pilot replaced the traditional repayment process that required customers to visit BRAC branches once a month.

b. To answer this question, a BRAC research team, with analytical support from CGAP, conducted qualitative and quantitative interviews with 65 customers with loan values between US$1,875 and US$8,750.

c. Exchange rate of 1 US$ = 77.76 BDT as of 19 June 2013. Source: www.bangladesh-bank.org

4. Why Have Some MFIs Made the Strategic Decision to Hold Off on M-Banking?

Despite the fact that a well-functioning m-banking system has the potential to positively impact the business processes of an MFI's operations, this does not necessarily mean that every MFI should pursue m-banking. Even in a country with a viable m-banking service, there may be institutional or market-specific reasons to postpone the integration of m-banking.

M-banking is not the answer for MFIs that have problems with portfolio quality. These MFIs are much better off fixing their portfolio issues first and focusing on the sustainability of the organization before embarking on m-banking. In 2011 the Moroccan MFI Al Amana had an ambitious m-banking project in the pipeline.[32] The current CEO, recently appointed at that stage, decided to stop the project while it was still in its design phase. The quality of the MFI's portfolio was deteriorating for a number of reasons,[33] and Al Amana decided to defer the

32 Information on Al Amana is from an interview with the Executive Director Youssef Bencheqroun in November 2012 and subsequent communication through June 2013.

33 Reasons included the Arab Spring. See Chehade and Negre (2013).

potential efficiency gains from m-banking until after resolving portfolio quality issues.

Al Amana's decision was similar to that of Tameer's in Pakistan mentioned earlier, which chose to wait on m-banking to secure the quality of its loan portfolio. But other MFIs in Pakistan, specifically those regulated as NGOs, have begun using m-banking for loan repayments.[34] While Pakistan is one of the leading countries in m-banking activity, the majority of transactions are still done over-the-counter (OTC). That is, transactions are done at an agent rather than on the customer's own m-wallet. In line with the broader m-banking environment, even those NGO MFIs that have piloted the use of m-wallets for loan repayments tend to instead leverage agents for OTC loan repayments.

Asasah, a NGO MFI with 12,000 customers and 19 branches in Pakistan, piloted EasyPaisa's m-wallet for loan repayments, but has since shifted to OTC transactions at EasyPaisa agents.[35] There were many challenges that customers faced with using the m-wallet. Group leaders were responsible for making a cash-in deposit at an EasyPaisa agent for the amount to be repaid, followed by transferring the appropriate amount from her m-wallet to Asasah. But group leaders had a difficult time managing the mobile phone number, account number, and personal identification number necessary to complete the transaction. By using OTC, all of these steps are done by the EasyPaisa agent on behalf of the Asasah customer.

Given the vastly superior EasyPaisa agent network of 20,000 points over Asasah's own branch network, the shift to OTC still provides Asasah customers with the convenience and lower travel costs that they valued from using the m-wallet. Like Al Amana, Asasah still believes that the m-wallet provides useful functionality and is an option for the future. However, it will wait until there are better incentives for customers to use the wallet over the OTC option.

Kashf Foundation, an NGO MFI serving over 300,000 customers in Pakistan, began using United Bank Limited's (UBL) Omni agents in January 2011 as an option for its individual customers, representing about 65 percent of its customer base, to make loan repayments.[36] Currently, 40 percent of loan repayments from individual customers are made through 1,800 Omni agents, processing on average 75,000 transactions worth US$1.85 million every month.[37] Customers value the reduced travel time and costs to reach an Omni agent instead of one of Kashf's 160 branches, saving US$0.41–US$1.02 on transportation. Kashf has so far absorbed the transaction fee charged by UBL. Customers have the choice of which repayment method to use, usually deciding based on whether the agent or the branch is closer. Kashf has noticed that 30 percent of repayments now happen after work hours and on the weekends. The OTC system of repaying is working so well that Kashf is not in a hurry to transition to m-wallets for repayments. Kashf benefits from less congested branches, lower levels of cash at branches, and reduced insurance costs. Most importantly from Kashf's perspective, customers now have a choice in how they repay their loans.

The Pakistan experience highlights an important point about the link between m-banking and microfinance. MFI customers tend to follow the trend of their local m-banking market where, in the case of Pakistan, MFI customers prefer OTC transactions to wallet-based transactions similar to m-banking customers in Pakistan overall.

In summary, the decision to hold off on m-banking relates mostly to timing, either due to more pertinent sustainability concerns, "easier" alternatives such as OTC payments, or a lack of an m-banking system to leverage.

34 NGO MFIs are regulated more lightly than microfinance banks in Pakistan, including the implications of a deteriorating loan portfolio.
35 Information on Asasah is from an interview with CEO Tabinda Jaffery and her staff in July 2012, and subsequent communication through June 2013.
36 Information on Kashf Foundation is from an interview with Managing Director Roshaneh Zafar, Head of IT Faisal Saeed Malik, and Chief Financial Officer Shahzad Iqbal in July 2012, and subsequent communication through June 2013.
37 Average exchange rate of 1 US$ = 98.06 PKR for March 2013. Source: www.sbp.org.pk

5. How Has M-Banking Created Opportunities for New Innovative Microfinance Business Models to Emerge?

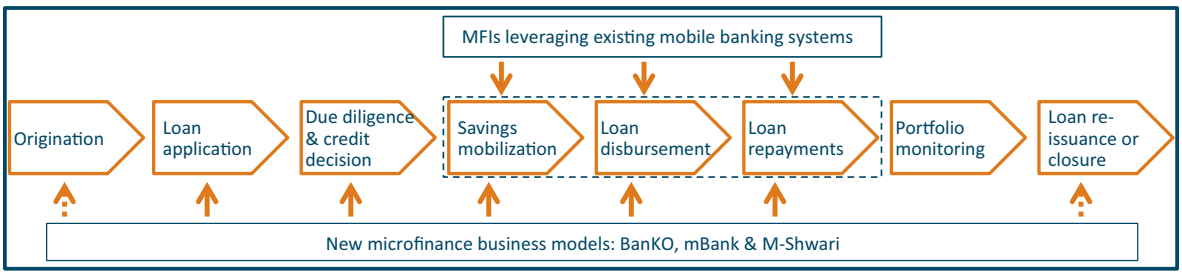
Up to this point, this paper has examined the ways m-banking has enabled MFIs to innovate on a few links within the microfinance business process, namely on loan repayments, loan disbursements, and savings mobilization. There are several new institutions that have begun to leverage m-banking at many more points along the process as shown in Figure 2.

To make useful comparisons to traditional microfinance business models, this section focuses on institutions that offer *at least credit* and possibly other types of financial services to poor people, leveraging m-banking. Using these criteria, there are several exciting institutions that are emerging.

BanKO in the Philippines is one such example in the way it uses m-banking to do origination, loan application, and due diligence. When BanKO started its retail business, it used loan officers along the lines of what traditional MFIs use. But this proved to be too labor intensive and too costly, so BanKO began to innovate in how it processed loan applications and carried out due diligence. It knew that its business model wouldn't allow for house visits for due diligence. Instead, BanKO relies initially on savings and subsequently on loan repayment and savings patterns. It signs up new customers to an account that bundles savings, insurance, mobile payments, and eventually credit. On day one, a customer receives the savings account and life insurance product. If she has US$50 in savings, she can borrow US$50 as a loan.[38] After building up a good repayment record over several months, customers can begin to borrow at double their savings and so forth. Account opening takes place at agent locations where customers are able to leave with a fully activated account and an ATM card after a 10–15 minute registration process. BanKO spent considerable time at the start of its retail operations establishing an agent network. At first, the plan was to rely primarily on GCASH agents, since BanKO is a three-way partnership among BPI (40 percent), Globe Telecom (40 percent), and Ayala Corporation (20 percent). But they soon realized that GCASH agents would not be able to handle all the liquidity needs of BanKO customers. So BanKO began to sign up its own agents as partner outlets. GCASH does, however, play an important role in BanKO's business since the GCASH wallet serves as the route to the BanKO account when transacting at an agent. GCASH customers also benefit from the BanKO agent network, which they can use for transactions.

The recently launched mBank, also in the Philippines, has a similar approach to BanKO, but in cooperation with the other main MNO in the Philippines, SMART Communications.[39] mBank customers start with an m-wallet account for transactions, followed by a savings account. Based on the customer's transaction

Figure 2: A new microfinance business process



38 Exchange rate of 1 US$ = 41.2 PHP as of 18 April 2013. Source: www.bsp.gov.ph

39 Information on mBank is from a meeting with CEO Arnaud de Lavalette in December 2012, as well as subsequent communication through June 2013.

history in the m-wallet and credit scoring tied to SMART airtime use patterns, the bank offers a loan product that works like an overdraft account. After a new customer requests to open an account by text, an mBank staff member goes to the customer to fill out the application form. mBank staff at headquarters simultaneously enter customer data into their MIS after receiving a photograph of the registration form from the field staff's mobile phone.

So what is different about these two particular business models from what has been traditionally seen? First, they use m-banking along various aspects of the microfinance business process. Both use m-banking to facilitate different degrees of remote customer registration. They use transaction histories as a key tool for carrying out due diligence and underwriting loans, and, in the case of mBank, have begun using mobile usage data for credit scoring purposes. Their business model is based not just on loan balances but also on transaction volumes and savings. Ultimately, the main differentiation should come from the cost effectiveness of their operations. BanKO relies on just over 200 employees for 300,000 customers. Their retail loans are provided at 2.5 percent per month on a declining balance. This rate is slightly below market for microloans, particularly among the nonbank MFIs, but it is still too early to tell how much cost savings will come from their mobile-based business model.

Second, BanKO and mBank are taking elements of both the microfinance and the m-banking worlds. Unlike the GCASH wallet, the BanKO account is deliberately not prepaid. It was clear to BanKO that poor customers want to earn interest on their savings, to borrow, to establish a credit history, and to access insurance. These products are more difficult to offer through a pure prepaid m-wallet service, in part due to regulation. At the same time, poor customers at times want easy access to their savings, quicker access to credit based on their borrowing capabilities, and a light-touch relationship with their financial provider, all of which are difficult to offer through traditional microfinance models. Potentially exciting innovation happens when elements of both worlds are merged. Yet new challenges also emerge. Since BanKO and mBank can be used only with the SIM cards of Globe and SMART, respectively, their growth may be somewhat limited to the market share of each partner MNO.[40]

As previously mentioned, Musoni is another example of a new type of MFI doing credit differently by having implemented m-banking from the start for loan disbursements and repayments. Unlike BanKO and mBank, the group loan applications, due diligence, and the credit decisions still take place in person. But once approved, disbursements happen within 72 hours through M-PESA. Repayments also happen through the pay bill functionality of M-PESA. Musoni is unique because it began operations by using only M-PESA as the bulk disbursement and repayment mechanism. Many of the MFIs studied for this paper have gone through lengthy, costly, and often disruptive transition periods to introduce m-payments as an option to their customers. Musoni avoided all of these growing pains by using M-PESA from the start and requiring customers to use this method. Its experience shows that new MFIs in markets with existing m-banking infrastructure should strongly consider going the m-banking route from the beginning to avoid the costs and challenges of change management, and to ensure that, as much as possible, the investment in m-banking replaces other costs, such as cash management, rather than being parallel costs.

In summary, new business models are emerging that leverage m-banking more intensely across the microfinance business process. Time will tell how sustainable these models are and how customers respond to new service providers and their products. It is clear, however, that these innovations would not be possible without the m-banking infrastructure that has developed in many markets over the past few years.

40 As of Q1 2013, SMART has 67 percent market share and Globe has 33 percent market share (source: www.gsmaintelligence.com).

Box 4. The Case of M-Shwari

M-Shwari is an interest-bearing mobile savings and loan product launched by Safaricom and Commercial Bank of Africa (CBA) in Kenya in November 2012. This product builds off of M-PESA's 17 million customer base and is innovative for many reasons, not least because it brings together two unlikely players that traditionally do not offer small-value loans to the mass market.

All transactions in the M-Shwari accounts are done through mobile phones, and registration happens instantly through the M-PESA menu regardless of whether the customer is an existing CBA account holder. Safaricom customer data are used to generate a credit score for customers, and once registered, customers can access their credit limit using their mobile phone. The account offers interest on savings between 2 percent and 5 percent with no limits on how much is saved. Customers have access to instant small capital loans of US$1–240 at 7.5 percent to be repaid in one month.

The product clearly satisfied unmet demand as 1 million customers signed up for the account within one month of launching, accumulating over US$11.5 million in savings and almost US$1.2 million in loans. This rapid adoption highlights the potential of these new business models to rapidly scale in a way that more traditional MFIs have been unable to do. Customers value the convenient service of the loan product and the alternative to the typical community-based sources of credit. Early adopters include typical MFI customers such as traders who use on-demand loans to grow their businesses.

As the mainstream m-banking industry has shown over the past several years, getting partnerships right can be the hardest part of making a new business or product line work. One feature that makes M-Shwari unique is the early appearance of a strong business partnership between Safaricom and CBA. Safaricom manages all the marketing and distribution, and provides customer voice, data, and M-PESA usage data to CBA. CBA leads the backend operations of reconciliation of cash and e-float, holds the funds, manages the credit scoring, carries the default risk, and provides the bank license. This partnership works in no small part because Safaricom found a bank that is not a competitor in the low-end of the market.

Interestingly, there have been a fair share of previous experiments offering M-Shwari-type products over the mobile channel in Kenya that have failed to scale for various reasons. M-Kesho, the partnership between Safaricom and Equity Bank, suffered from many things, including a lack of promotion by each partner and a poor registration experience whereby only a limited number of M-PESA agents could register new customers and account activation took 48 hours. The lack of promotion can be partly explained by the competitive tension between Safaricom and Equity Bank, with both players competing on its own to provide financial services to the mass market.

Source: Research from the Grameen Foundation AppLab Money team; MicroSave Briefing Note #139: "M-Shwari: Market Reactions and Potential Improvements," February 2013. http://www.ignaciomas.com/announcements/safaricomsm-shwarimobileyesbuthowcool

6. Conclusion

"MFIs don't ask the question, but see mobile banking as the answer. They need to know what it is trying to solve. It isn't just an IT and marketing issue. It changes the whole operations." This quote from the former CEO of an MFI in Africa sums up the current situation well. MFIs need to further develop their "theory of change" about how m-banking can be used to improve microfinance operations and what the likely costs and benefits will be for the institution and its customers.

Our research has confirmed that MFIs and their customers can benefit from m-banking. However, there is no evidence of an MFI playing a driving role in the adoption of m-banking. To date, those MFIs that have been successful in using m-banking for their operations are located in mature m-banking markets where customers are already aware that the mobile phone can be used for payments, and where a viable m-banking service with a well-functioning agent network is available to be leveraged by MFIs. Experience suggests that this m-banking infrastructure and mass scale behavior change needs to be created before MFIs and their customers can reap the benefits of m-banking. As the Director of BRAC Microfinance, Shameran Abed, put it, "The [bKash] pilot test was an operational success, and we see the potential convenience value for our clients, but we will only roll it out more widely once the agent network is more mature and awareness of mobile financial services among the population is more widespread."

Arguably the biggest advance in the intersection between microfinance and m-banking has come from new, emerging microfinance business models. M-banking has facilitated a new approach to microfinance by using the mobile phone, customer usage data and agents for loan applications, customer due diligence, and credit decision-making. The microfinance culture has begun to merge with the m-payments culture to provide much more than what microfinance services or m-payment services can offer alone. M-banking is also facilitating new partnerships between unlikely players that each brings areas of expertise that have the potential to deliver innovative financial services to the unbanked.

This story is still in its infancy—the leading m-banking deployment in the world has existed for only a little more than six years. Questions remain. What is the optimal blend of m-banking and microfinance? Will a relationship-based, yet cashless, model enable the scale that is required? Will the ever more technology-dependent approaches be able to remotely offer the quality of financial services that is required and with suitably low customer default rates? As more m-banking providers reach scale, will the opportunity for MFIs to leverage this technology outweigh the increased competition that new microfinance business models bring? MFIs are operating during exciting times and, more importantly, MFI customers have the potential to benefit greatly from the innovations that abound.

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CGAP

No. 88
August 2013

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The authors of this Focus Note are Michel Hanouch and Sarah Rotman of CGAP. In addition to the many people from each of the organizations profiled here who participated in interviews, the authors would like to thank Leesa Shrader for her very useful insights, as well as CGAP colleagues Greg Chen, Minh Huy Lai, Claudia McKay, Kate McKee, Steve Rasmussen and Michael Tarazi. The authors would also like to thank BRAC and bKash for their collaboration on the customer research and specifically Md. Golam Saklyen of BRAC who led this research. The Technology and Business Model Innovation Program at CGAP is co-funded by the Bill & Melinda Gates Foundation, CGAP, The MasterCard Foundation, and the UK Department for International Development (DFID).

The suggested citation for this Focus Note is as follows:
Hanouch, Michel, and Sarah Rotman. 2013. "Microfinance and Mobile Banking: Blurring the Lines?" Focus Note 88. Washington, D.C.: CGAP, July

Print: ISBN 978-1-62696-020-6
pdf: ISBN 978-1-62696-021-3
epub: ISBN 978-62696-022-0
mobi: ISBN 978-62696-023-7