PlaNet Finance

OLIVER WYMAN

BEYOND PAYMENTS

NEXT GENERATION *MOBILE BANKING* FOR THE MASSES

MICROFINANCE & MOBILE BANKING: STRATEGIC AND OPERATIONAL LEARNINGS FROM PILOTS IN EMERGING MARKETS

This study was commissioned by the Bill & Melinda Gates Foundation.

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Foreword

2009 and 2010 were exciting years for mobile money. As the number of mobile money subscribers worldwide neared a 50 Mn[1], the market saw some promising launches and MNO-bank partnerships[2] with a potential to further innovation in the field of mobile financial services. However, while mobile money is now on the agenda of several mobile network operators (MNOs) and financial institutions, most are still living an M-PESA[3] dream, seeking to replicate the success of Safaricom's mobile payments service. PlaNet Finance and Oliver Wyman looked beyond payments to explore the power of mobile technology in providing low income consumers with access to a wide range of financial products through next generation mobile microfinance services.

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With wide coverage of bottom of the pyramid (BoP) consumers, 2nd generation mobile microfinance products – such as micro-savings, credit and insurance – can transform banking, especially in countries with less than 10% retail banking penetration. Extending the mobile money offering beyond payments can significantly increase its value for both consumers and providers.

While the success of M-PESA has been applauded, it is still unprecedented making some investors and providers cautiously enthusiastic about mobile money. Indeed, such an undertaking comes with formidable complexities and the formula for success is not straightforward. This is the core topic we address in this report. Drawing on our experiences in pilots conducted in Africa and in Asia, we explain the challenges in deploying mobile microfinance and offer strategic and operational solutions. In doing so, we have explored two distinct innovative models through our pilots.

1. The distribution of microfinance through mobile money
2. A virtual microfinance bank, a pure mobile play without any branch based banking operations

It should be taken into account that our learnings are limited by the scale and scope, both in size and characteristics, of the pilots described in the report. Some important aspects fell outside the scope of this study. These include the role of regulations in shaping emerging models of mobile money, and the role of technology (with regard to platforms, devices and security) in making mobile money affordable, convenient and efficient. We will examine these later, when we move from the pilot stage towards commercial launch.

We would like to thank all the experts who have contributed to this report through the direction and views they have provided, especially Daniel Radcliffe and Ignacio Mas from the Bill & Melinda Gates Foundation and Mark Flaming, an international expert in microfinance and mobile banking. We hope that this paper will provide insights into issues that practitioners across markets encounter when deploying innovative mobile money solutions.

Greg Rung   Arnaud Ventura

[1] Joint study conducted in 147 emerging markets by GSMA and CGAP.
[2] Such as Safaricom/Equity Bank in Kenya, Tameer Microfinance Bank/Telenor in Pakistan, SBI/Airtel in India.
[3] M-PESA is the mobile money transfer service launched by Safaricom in Kenya. It is among pioneer products of the mobile money world.

Our Findings in a Nutshell

In this article, we introduce "**mobile microfinance**" – a way of providing microfinance products through the distribution network of a mobile operator – and "**virtual microfinance bank**" model, where the provider serves its customers only through the mobile channel, without deploying brick and mortar branches[4].

The benefits of these models, observed in our pilots, include a more than twofold increase in access to banking, 20-50% lower operational costs for the MFI and revenue or market share benefits for the MNO. The main conclusions of our study are:

- Vanilla micro-savings have very low usage rates. Introducing commitment driven bundled savings[5] has been effective in stimulating usage in our pilots, boosting activity rates by 2 to 3 times. If the bundled product eliminates a "pain point" for the consumer, it can catalyze the movement of deposits from "under the mattress" to a bank.
- There is typically a high seasonality of savings among different sub-segments and partners should consider this in their product design and in deciding when to market products.
- A meticulous performance management system can have a significant effect on agent behavior. When implemented correctly, we have seen such a system increase activity rates by up to 60%.

Below are our key learnings for setting up mobile microfinance, based on observations from our field tests:

1. **The strategy alignment phase between partners can often be long and can significantly delay launch timelines**. Partners should have similar appetites for the time and investments required and should agree upfront on a high-level strategy, while kicking off execution in parallel.

2. **It is often difficult for partners to agree on a sustainable profit model**. Negotiations can be eased by on-going discussions supported by detailed customer valuation exercises and exclusivity to protect early investments. The model should be both activations and usage based and should allow for one activity or product to subsidize the other.

3. **Product design for such an enterprise poses two key challenges.**

3.1. **Poor understanding of the financial needs of target segments affects product sequencing and design**.

- Choice of launch product should be based on the market's unmet needs and readiness for mobile money. The presence of 1st generation products can be a precursor to launching 2nd generation services.
- Selectively targeting sub-segments and adapting offer design to their income cycles can reap benefits.

3.2. **Most products face very low usage post-acquisition** due to earnings volatility and a lack of financial discipline. For savings, a combination of commitment to save (from the consumer) and a bundled incentive (that drives savings rates) can be an effective way to stimulate deposits.

4. **Poor customer experience is a key reason for dropouts:** partners should create a simple and consistent customer journey to reenforce trust, ensure access, facilitate usage and maximize customer lifetime value.

5. **Marketing communications for a mobile microfinance enterprise need to address two key issues.**

5.1. **Given low financial literacy in target segments, it should stimulate trust and sensitize consumers** towards financial products. A well known brand can attract customers to try the service but it does not guarantee sustained usage. Brand repositioning and further trust building measures might be needed at both product launch (through above the line campaigns) and at customer acquisition (through street marketing initiatives).

5.2. **Optimizing marketing spend can be a challenge in serving low-income consumers**. Partners can maximize the marketing dollar impact by aligning marketing campaigns with segments' financial cycles and leveraging viral marketing techniques to boost activations (through events, agents and peer-to-peer interactions).

6. **Building, managing and incentivizing an MNO's distribution network in tandem with an MFI's agent network is a complex undertaking**. We have tested "Mobile Coaches" as a way of integrating MFI-MNO's networks and boosting activations using feet-on-street agents. Partners should also:

- Adopt a systematic selection norm to sign up cash-in/out agents that most likely do well on financial products.
- Implement a value-based incentive scheme and a performance management system for agents while also subsidizing the agent network to ensure an attractive business for them.

7. **Operators must find ways to manage risks that multiply as a small scale MFI expands services to a much larger network through remote channels**. MFIs should implement an automated risk management system with four key levers: data-driven credit[6] scoring, graduating credit, predictive loan management systems and use of borrowers' vital business participants in distribution[7].

[4] There are branches in the form of cash-in/out agents, but they do not have to form part of the formal banking system.
[5] Savings coupled with other products such as credit/insurance/high interest.
[6] Graduating Credit: When the current loan amount for which the client qualifies increases based on a metric that can enable assessment of the clients credit worthiness e.g. repayment performance of previous loan.
[7] Suppliers, creditors, clients etc.

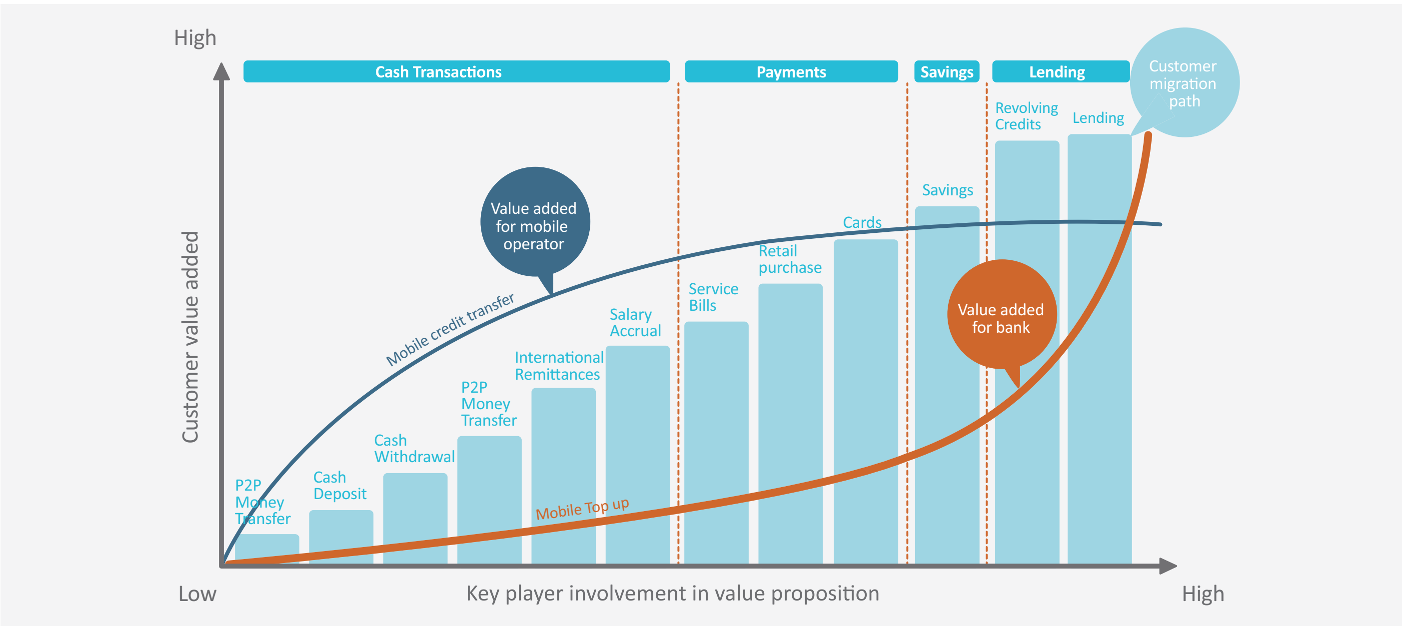
Introduction

"2nd generation mMoney products can benefit billions of people by giving them access to basic microfinance/banking services while creating a profitable business model for operators"

The number of unbanked or underbanked mobile subscribers around the world is projected to reach ~2 billion by 2012[8]. Today, only around 50 million[9] subscribers use mobile money services. This business has seen huge growth in recent years, both from mobile network operators and financial institutions, with 93 live and nearly 100 additional planned deployments[10]. Most deployments so far have been focused on 1st generation mobile money products such as remittances, airtime top-up, bill payments and loan repayment. The transformational impact of mobile money is expected to come from 2nd generation financial services such as micro-savings, micro-credit and micro-insurance, especially in countries with less than 10% retail banking penetration. A progressive take-up of more such complex mobile banking products will allow both telcos and financial institutions to benefit, as they reap value from complementary skills and deliver more value to customers, as illustrated in Figure 1. This report focuses on "mobile microfinance" as a way to reach a large mass of unbanked subscribers through not only payments, but also more advanced banking products.

The upsides? Mobile microfinance is set to bring significant benefits for all stakeholders. For clients, it can expand access to banking by more than twice over the existing levels[11]. In one of our pilots, 80-90% of the acquired mobile microfinance subscribers had never held a bank account previously. A widespread "Mobile Operator like" distribution model makes the service far more accessible and convenient over the existing branch-based banking options, reducing travel and opportunity costs for consumers. In our pilot in South East Asia, these savings were approximately 80%, as shown in Figure 2. These benefits come together with the well-established advantages of traditional microfinance which plays an important role in stabilizing the cash-flow of low income segments.

Figure 1 *
MNO/bank value creation potential along customer migration path



[8] Joint study conducted in 147 emerging markets by GSMA and CGAP.
[9] GSMA Mobile Money Deployment Tracker 2010; 45 Mn Mobile subscribers across different deployments.
[10] GSMA Mobile Money Deployment Tracker 2010.
[11] Gap between banking penetration @10-30% and mobile penetration @60-80% in the pilot geographies.

For Banks and MFIs (Microfinance Institutions) the delivery of financial products through the mobile channel can allow MFIs to move further down the income pyramid, increasing their client base manyfold. In the case of Kenya, Equity Bank aims to double its number of bank accounts over a period of 15 months[12] by reaching remote customers partly with the help of their mobile savings product. In our case studies, the MFI in West Africa can potentially increase its subscriber base by 60% by cross-selling through the mobile channel. In our South East Asian case, the mobile MFI has a potential to reach up to 10 times the subscriber base of a typical MFI in the country.

The mobile channel comes at a lower cost than branch based banking. For the "virtual MFI" in South East Asia, the operational costs are 50% lower than those of a traditional MFI, as illustrated in Figure 3. These savings come from a very lean branch model with lower administrative and personnel costs owing to the use of a purely remote delivery channel through largely automated processes.

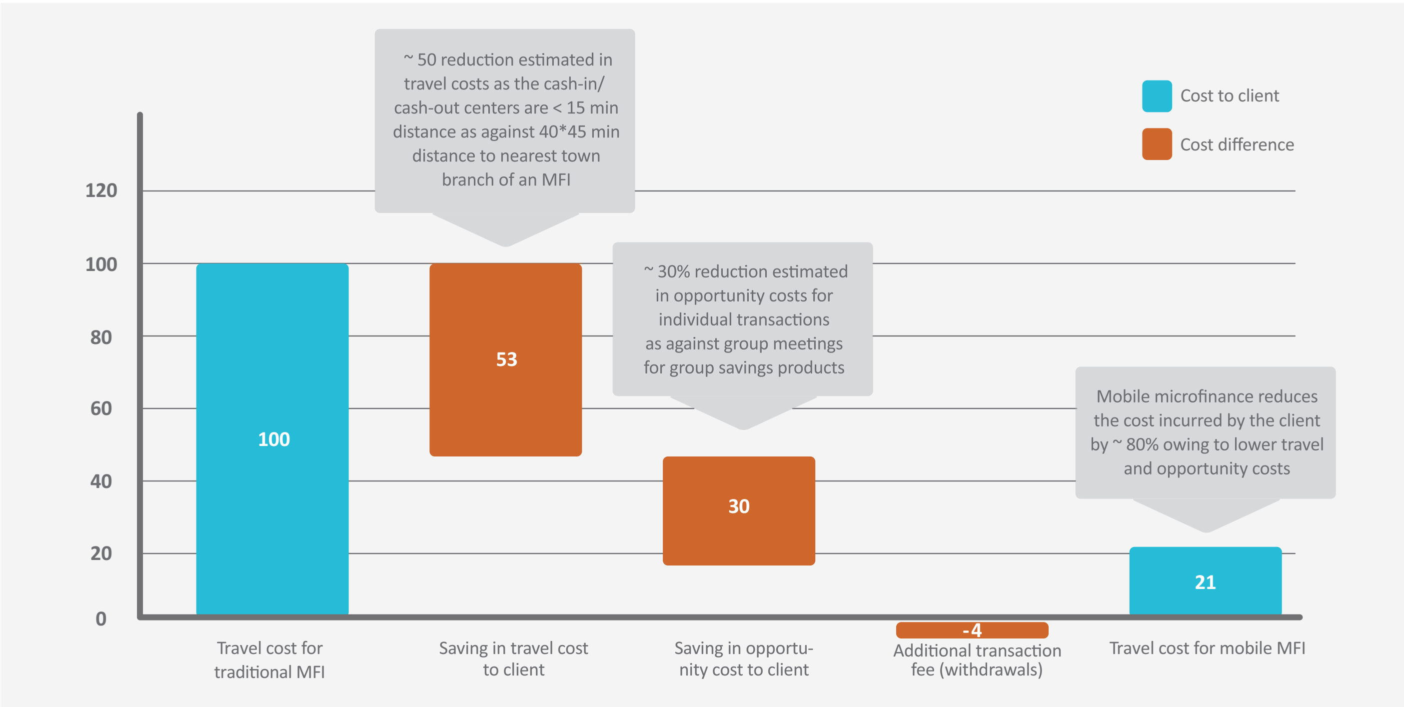
Even for a traditional MFI deploying mobile as an alternative delivery channel, cost savings can come from an optimized distribution model and automated or remote client handling. In our pilot in West Africa, the MFI reduced direct transaction costs up to 37% and processing costs by around 25% by implementing a mobile-based loan repayment system[14].

Figure 2 * 13

Cost for a savings client of the virtual MFI (in the pilot) vs. traditional MFI

(Basis points on a base of a 100; for a 50 USD deposit over 26 weeks)

Source: South East Asia Pilot



[12] Reuters; Equity bank press release, Oct 4, 2010.
[13] Comparison drawn between the branch PnL of the virtual MFI and a comparable traditional MFI offering same product lines (individual loans and savings as against group loans/savings) to low income segments; costs adjusted to differences in labor and resources costs in markets of comparison.
[14] For some traditional banks/MFIs, stated costs savings might be partly offset by the expenses incurred in modifying and adopting the bank's legacy systems to interact with MNO's advanced mobile money platforms. Furthermore, running branch based and mobile channels in parallel can dilute these cost savings on the overall cost base.

Mobile Microfinance Pilots in West Africa and South East Asia

For Mobile Network Operators (MNOs) there are also clear benefits. Some can be quantified, such as increased market share, reduced customer churn[15], enhanced revenue per subscriber and increased revenue from commissions. In our pilot in South East Asia, more than 90% of subscribers acquired by the mobile MFI are new clients of the MNO's mobile money service and hence generate added revenue from commissions. There are also broader benefits that cannot be fully quantified at this stage but include strengthening the MNO's brand positioning and reinforcing the MNO's appeal to clients and investors. Of course, these benefits do not come through easily. Launching mobile microfinance is a major transformational effort, both for traditional financial institutions and for MNOs. We address the key strategic and operational complexities in subsequent sections of this report.

With funding from the Bill and Melinda Gates Foundation, PlaNet Finance and Oliver Wyman worked together in early 2010 to explore the field of mobile microfinance via pilots in West Africa and South-East Asia.

Our pilot in West Africa is a partnership between one of the leading MNOs in the continent and a local traditional Microfinance Institution. The project has three main goals:

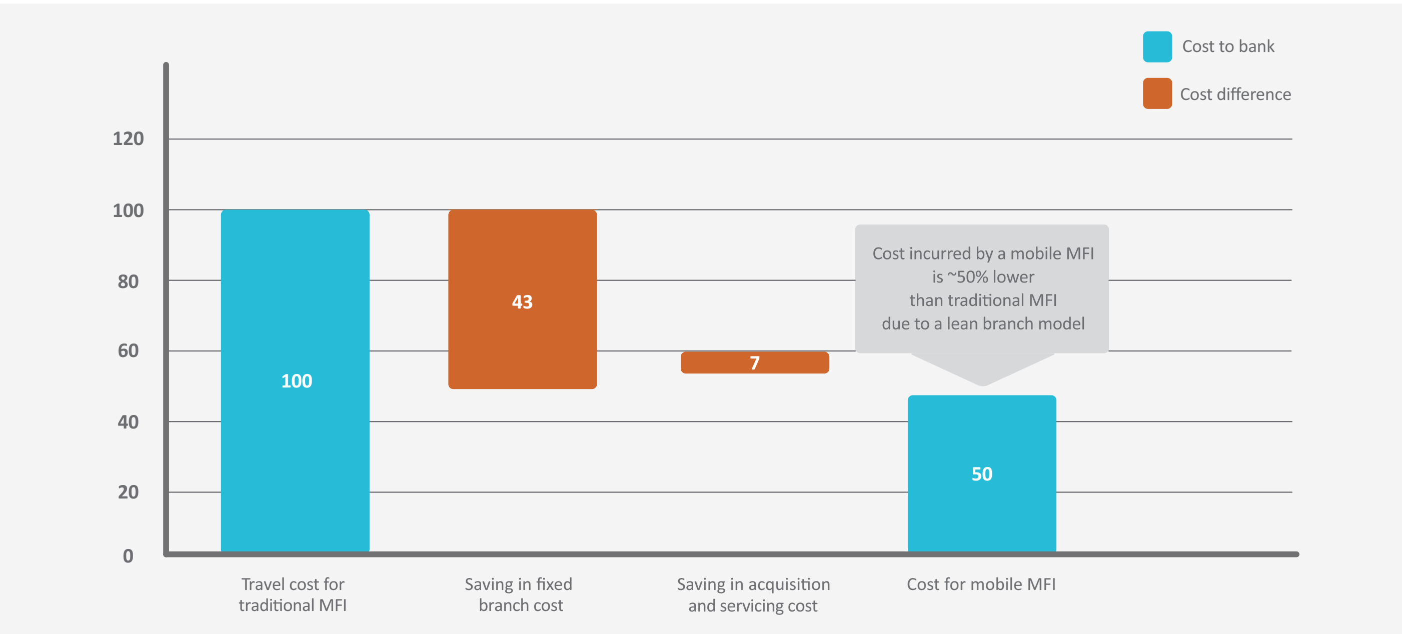
- Fight poverty by enabling more people in low income segments to build up savings.
- Promote Micro-Entrepreneurs by making credit more affordable.
- Make life easier for the unbanked by bringing microfinance products to mobile phones.

The MFI aims to achieve these goals in three ways. First, it allows customers to make deposits on a saving account using their mobile phone, regardless of their location. Second, it offers a product that allows customers to repay their loans remotely, using a mobile-banking platform. Third, it develops new retail points for mobile money operations, thus giving easier access to products for its customers, while generating added revenue and new customers for the MFI.

Our pilot in South East Asia is a partnership between a leading domestic MNO and a start-up branchless bank. The key objectives are to:

- Increase access to core banking products for low income consumers living in remote locations.
- Increase banking convenience by enabling people to save money by going to outlets near their homes.
- Develop a low cost and competitive operating model with financial gains for the Bank and its distribution partners (the MNOs and 3rd party distributors).

Figure 3 *
Cost to serve savings client for the virtual MFI (in the pilot) vs. a traditional MFI
(Basis points on a base of 100; for a 50 USD deposit over 26 weeks)
Source: South East Asia Pilot



[15] The rate at which customers leave for a competitor.

Key Challenges in Mobile Microfinance Deployments

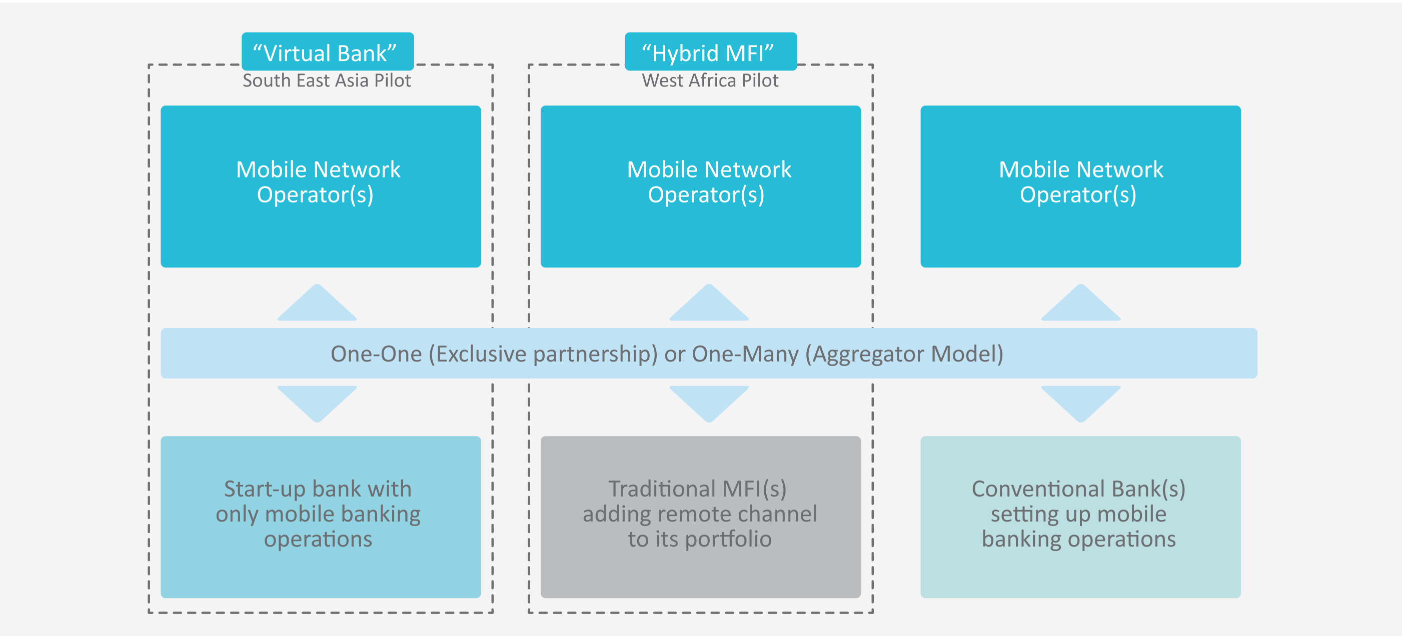
Partners in this model aim to set up a "virtual Microfinance Bank". This Bank will use the MNO's existing agent network to distribute financial products to unbanked clients. It does not intend to own a conventional banking arm or brick and mortar customer services branches. The key principle at which such a virtual microfinance bank operates is that several of its core functions are outsourced and the key task of the bank's human resources is to manage partners be it for distribution, client servicing or data management. The banks' offices do not serve as cash-in/cash-out branches but purely as partner service centers and most of the activities are automated and centralized.

> "Complexities in deploying a successful mobile microfinance enterprise are many; operators need a holistic strategy that carefully addresses all the delicate elements of the business model"

We engaged with the partnering banks and MNOs in four countries over a period of 8 months to support various activities including strategy refinement, business planning, market research, product design and testing, distribution strategy design and operating model design. Our main learnings are outlined below. Many factors affect the development of mobile financial services. While a model may succeed in one region, it may struggle in another due to differing financial needs or behavior of target subscribers, the maturity of the banking and telecom markets, strategies adopted by providers or regulations. For example, M-Pesa was not initially as successful in Tanzania as in Kenya because of differences in the mobile banking landscape in the two countries[16].

Given the capabilities required to offer mobile financial services and the regulatory regime in most markets, a mobile microfinance enterprise can be delivered only through strategic partnerships. Some of the partnership options are illustrated in Figure 4 below.

Figure 4 *
Mobile Microfinance: Partner models tested in pilots
Source: Pilots and Emerging Mobile Money Models

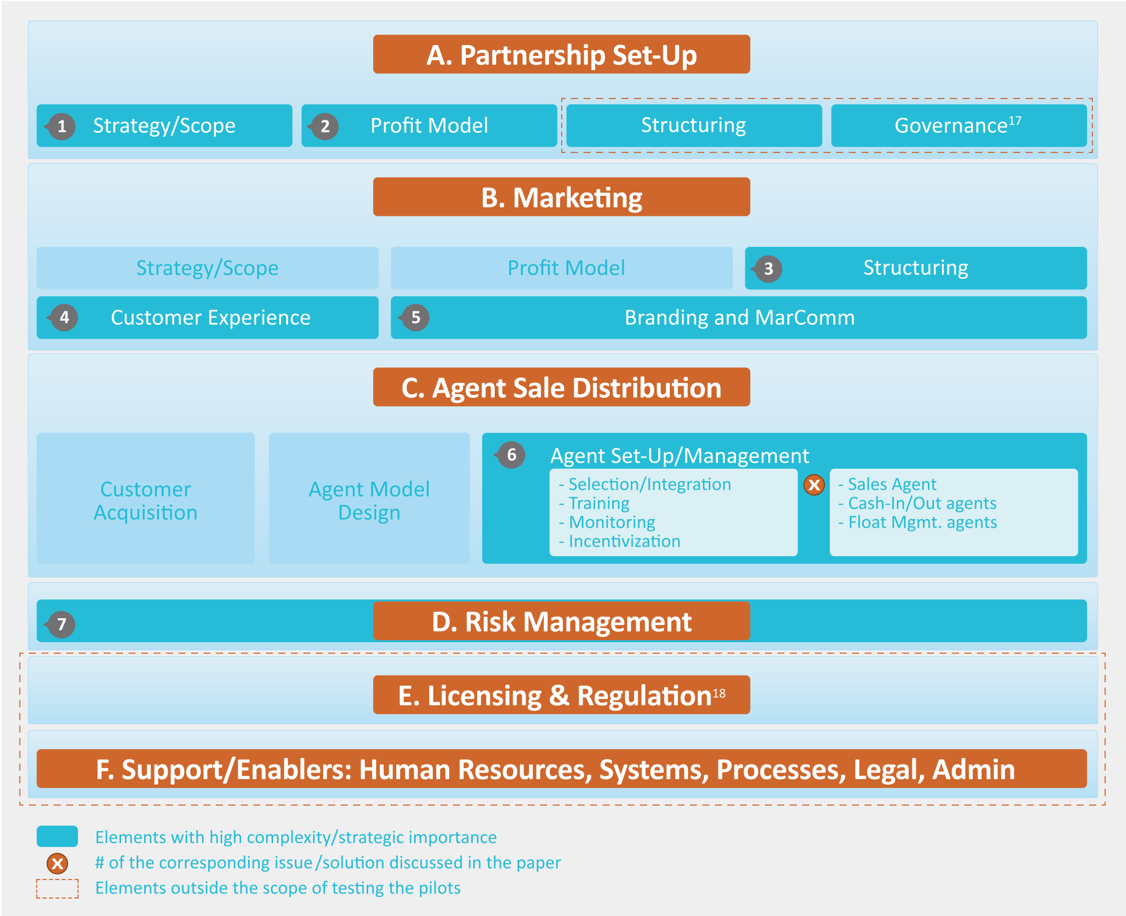


[16] CGAP: Mobile Banking in Tanzania, July 2009: This difference is attributed to three main factors:
1. Tanzania is more geographically spread vs. Kenya which is densely populated, making it difficult to optimize agent outreach.
2. Vodacom in Tanzania faced stiff competition from existing mobile payments providers when it was launched. On the other hand, Safaricom was the dominant player with more than 2/3rds of market share in Kenya. at the launch of its mobile payments service. It was also one of the first providers of mobile payments.
3. Vodacom Tanzania had a lower control over its agent network than Safaricom in Kenya and also had significant differences in its positioning compared to Safaricom in Kenya.

We have subsequently split the business model of a mobile microfinance enterprise into six key functions which need to come together in harmony to ensure a successful mix. These functions are illustrated in Figure 5. Each of these plays an important role in the delivery of services; however some are more complex than others.

We will focus in the coming sections on the seven broad areas that posed the highest implementation challenge or emerged as key strategic levers in our pilots. Some of the elements fell outside the scope for testing in the pilots, owing to a relatively limited scale of operations.

Figure 5 *
Business model elements of a mobile MFI
Source: Assessment of Pilots in South East Asia and West Africa



A Partnership Set-up

#1 The effort and time required to align partners fully on strategic areas can significantly delay project launch, putting success at risk.

The time taken in aligning the strategy and agreeing on the way forward was significant in both our pilots. Partners took almost a year to reach advanced stages on strategy design. Some of the most common issues encountered in strategy design were choice of products, pricing, target segments and branding decisions. In terms of strategy execution, partners made a significant number of iterations in finalizing the scope of work and the data management approach. The most common reason for this issue is a lack of understanding of the customer and of the partner's assets, and how they can best be leveraged. For instance, in the case of the West Africa pilot, the MFI already had ten existing and planned products, along with its own money transfer offer, which needed to be rationalized alongside the MNO's mobile money products upon the launch of the mobile microfinance partnership.

#2 It is often difficult to **agree on a profit model** that is sustainable for the MFI while being sufficiently attractive for the MNO.

The profit model directly affects the pricing for the consumer and is hence a very critical element of the partnership. Often multiple iterations are required before fixing both the basis for pricing as well as the levels. This happens mainly due to a lack of understanding of customer economics before the pilot, especially if the service is new and the adoption rates cannot be accurately determined.

[17] Given the studies conducted are in a pilot stage, operator-bank relationship structuring (particularly forms of partnership and related legal, commercial, operational terms) and governance (particularly management control and decision making) have been excluded from the scope of the paper. Interested readers can refer to the recommended publication: "Mapping and Effectively Structuring Operator-Bank Relationships to Offer Mobile Money for the Unbanked" by Neil Davidson, GSMA Mobile Money for the Unbanked, which elaborates this topic in detail.
[18] While Regulatory and Licensing can pose important challenges in many markets, given the broad range of issues involved in this, we have left it outside the scope of the current paper. Interested readers can refer to the recommended publication "Regulating New Banking Models that can Bring Financial Services to All" by Claire Alexandre, Ignacio Mas and Dan Radcliffe from the Bill & Melinda Gates Foundation, which elaborates this topic in detail.

B Marketing

#3 **Product design** for such an enterprise poses two key challenges.

■ 3.1 *The financial behavior and pain points of low income segments are not well understood, making **it tricky to choose and design suitable products.***

The foremost question is that of product sequencing, in other words selecting which of the first and second generation products should be offered in a given market. For instance in our West Africa pilot, we found that the uptake for the mobile money solution was relatively low, but the MFI was sufficiently sophisticated to launch complex banking products. Hence, we first introduced the MFI to simple mobile payment products to give both the MFI and its customers time to learn.

A subsequent challenge is to develop an offer that is well suited to the needs of low income subscribers. Most of these subscribers have been largely cash dependent and their financial behavior is very unsophisticated. Inadequate upfront investments in understanding these subscribers can result in the design of products that don't fit into their financial life. For instance, we noticed in our pilot in Asia, that the first savings product were unable to mobilize client's deposits despite a heavy marketing push, simply because the product did not address the client's financial pain points.

■ 3.2 *Most products face very low **usage rates post-acquisition.***

Customer acquisition can be easy for a service that is provided for free. For example, free activation of savings accounts in our pilots helped the agents acquire up to 60-70% of their leads. However, sustained usage of the service has been the biggest challenge in our case studies. In case of the West Africa pilot, less than 5% of the customers were active initially. Similarly in the South East Asia pilot, around 70% of the acquired subscribers on the first savings product never used their deposit accounts for any transaction. This largely stems from the fact that low income segments often have highly variable incomes, very basic knowledge of financial products and most are not disciplined savers. We noticed that almost 20-30% of subscribers in the pilot were dormant due to a lack of understanding of how exactly to use the products. To overcome this barrier, traditional MFIs have maintained a handholding approach, staying very close to the customer, which might not be scalable or cost efficient for a sizeable customer base.

#4 **Poor customer experience** can result in drop outs after initial usage of products.

We have seen multiple factors that can lead to a loss of the client's trust after activation. In our pilots such factors included delay in SMS confirmation after deposit, inconsistent experience with different cash-in/cash-out agents, a difference in balance tally between client's passbook (self recorded) and the bank's statements, due to manual recording mistakes and other factors. In the case of the West Africa pilot we saw transaction failure rates as high as 30%. Most of these subscribers were not using the service subsequently.

#5 **Marketing communications.**

■ 5.1 *Given low financial literacy in "Cash Societies", a key role of the marketing communications in launching an innovative financial product is to build **trust** and to raise consumer awareness.*

The target segments of mobile microfinance services have typically had very limited exposure to financial products before. The benefits and advantages of formal banking are not therefore apparent to them. In one of our pilots we noted that 60-70% of the mobile savings subscribers initially thought of the mobile microfinance product as an airtime top-up or a money transfer service, due to the wide recognition of the MNO's mobile payments brand. Moreover, we observed that even in periods when consumers stated that they saved more than 30 USD per month, they were only putting small portions of that (5-10 USD) into the mobile banking account, indicating limited trust in the service. These examples show that financial awareness is a key role for marketing functions and that the positioning of the brand needs to take this into account.

■ 5.2 *At early stages, on a small customer base, optimizing marketing spend can be a challenge.*

Most often, MNO's mobile money business models mainly rely on person-to-person remittances, while other mobile microfinance services are not sufficiently substantial to justify large scale communication budgets. Hence, MFIs need to find ways of acquiring subscribers at a low cost and devise effective marketing tools to maximize activations and usage. In one of our pilots, a cost assessment exercise revealed that if marketing expenditures of the virtual MFI were as high as a conventional mid-large scale MFI[19], the subscriber acquisition cost would make most customers loss-making, given the existing transaction sizes. Setting a higher minimum transaction size, on the other hand, would significantly reduce activity levels. Given limited marketing budgets dedicated to the launch, this situation prompted the MFI to devise ways to optimize their marketing spend for maximum impact.

[19] Comparison drawn to a comparable MFI owned and run by the same conglomerate with ~40,000 subscribers.

C Sales & Distribution

#6 Building, managing and incentivizing an MNO's distribution network in tandem with an MFI's agent network is a complex undertaking.

The agent networks of an MNO and an MFI are significantly different in structure, and the skills of the agents themselves are very different. This can become a key issue when deploying a joint network of agents for delivery of mobile financial services. Typically, the MNO's agent network has a number of layers (not directly controlled by the MNO) with a large-scale presence and a high client-to-agent ratio. Agents have narrow agent skills sets (owing to the commodity nature of core mobile products). In certain MNO networks, the operator only exerts limited control over the network, mostly run by 3rd party distributors[20]. The MFI agent network on the other hand is limited in scale; loan agents are highly skillful sellers as well as financial tutors; they are used to close proximity to the customer, and most of the network is controlled directly by the MFI. This makes it difficult to translate the entire MNO's agent network into a mobile money distribution network.
In addition, the commission levels on telecom products can typically be much higher in both amount and volume, compared to financial products which initially have low uptakes. Such differences make co-managing the two systems a major challenge. We faced this challenge in pilots where the MFI encountered significant resistance from airtime sales agents in taking on float management responsibilities, owing to a lack of time and low commission incomes from mobile savings products.

MFIs also need to find ways to scale up their agent networks at an optimal pace especially when the MNO's mobile money networks do not provide the required capillarity. For instance, in one of our pilots, many of the MNO's existing cash-in/cash-out agents (for remittances) are in urban/semi-urban areas. Subsequently, the MFI expects to build up its cash-in/cash-out network for rural areas from scratch.

D Risk Management

#7 Operators need to **find ways to manage risks** that allow a small scale MFI to expand services to a much larger network through remote channels.

Unlike traditional micro-lending, remote channels utilized by a mobile microfinance institution to deliver credit products can increase the MFI/Bank's portfolio at risk. The virtual Microfinance Bank in our pilot study aims to provide loan products, disbursed on the subscriber's mobile wallet in a completely automated and centrally controlled way. Traditional MFIs have used close customer contact to achieve single-digit default rates but this model is expensive and not scalable. For the virtual microfinance bank in context, the client/loan agent ratio can be almost 5-8 times that of a traditional MFI thanks to the higher level of automation. The lack of close customer contact needs however to be compensated with dynamic and automated credit risk management, by way of reminders (via automated SMS), data driven affordability assessment, robust recovery measures and use of partners/channels to maintain customer proximity. One of the key steps in our pilot was to fine-tune the automated credit risk management actions to ensure low default rates without the need for the MFI's direct agents to regularly visit clients.

[20] For instance, in Tanzania Vodacom had relationships with only six dealers who run its entire agent network whereas Safaricom has 300 such relationships in Kenya.

The Solutions: Strategic and Operational Learnings from Pilots

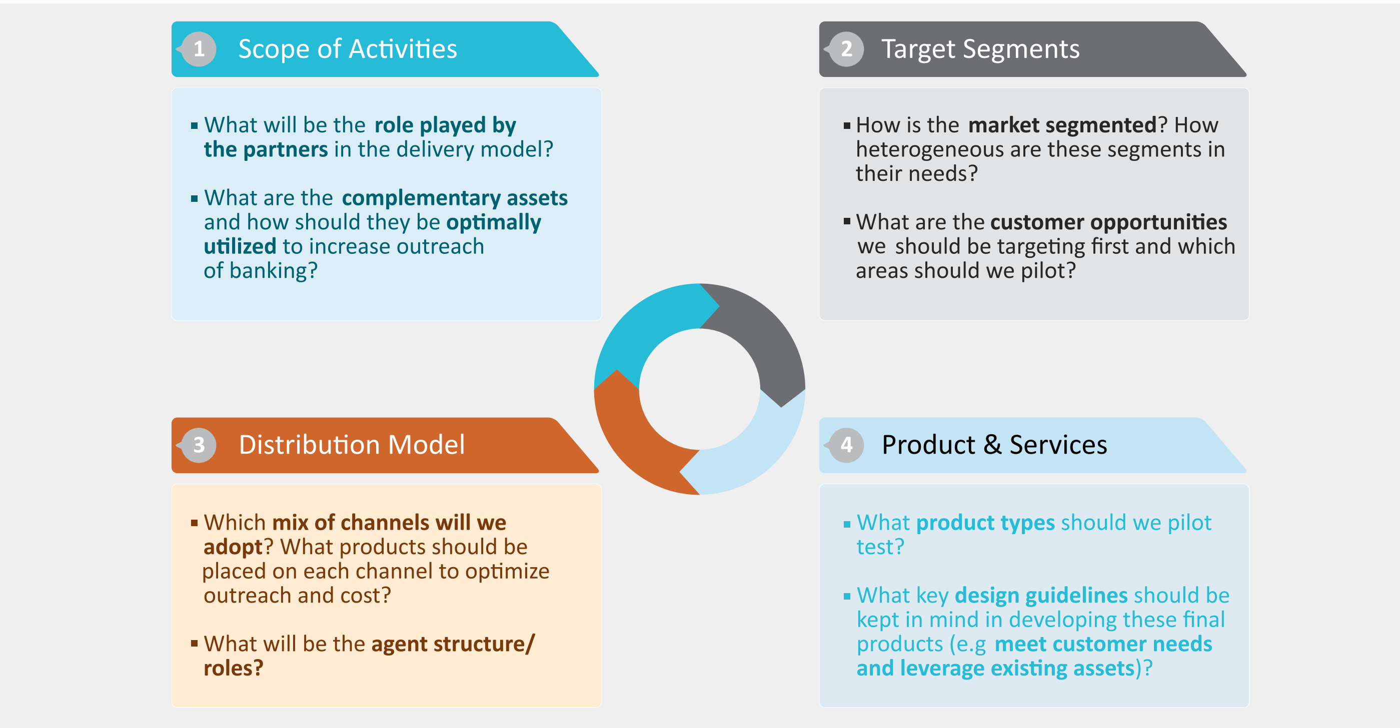
In this section we recount the challenges stated above and provide learnings gathered from our pilots along with experiences from other markets.

Partnership Set-up

#1 Achieving strategic alignment: Partners should have a similar appetite for timing and investments; they should agree upfront on a high level strategy for four core areas and kick-off execution/pilot at the earliest.

We believe that in order for partners to move in tandem, they need firstly to agree on the investments each one is willing to make in deploying mobile microfinance. In addition, upfront agreement is crucial for the launch timing. We have seen multiple occasions in our pilots when one of the partners has had to put valuable time and resources on hold due to changes in the strategic plan as well as delays in decision-making from the other party.
In addition, we have identified four core strategic areas for which partners should achieve substantial agreement upfront. These include the scope of activities, target segments, product/services and the distribution model. The key questions that should be addressed at this stage are illustrated in Figure 6. This process will allow partners to move in the same direction as they begin the execution phase. Each item of strategy can then be detailed and differences ironed out in parallel, either through pilots or while getting the organization ready for commercial launch. After the initial iterations between partners (on market studies and strategy design) in our pilot in South East Asia, as well as in West Africa, a fully-aligned detailed launch strategy was still missing. Subsequently, the partners went ahead with a pilot, with most of the strategy elements detailed in tandem with operational learnings from the field, thereby facilitating assessment of the impact of strategic decisions and agreement on the different choices available.

Figure 6 *
Core areas for high level strategic alignment
Source: Oliver Wyman Strategic Review of Pilots



#2 Agreement on a profit model that focuses on both activations and usage can be achieved through on-going upfront discussions supported by in-depth customer valuation exercises; partners might need to subsidize certain activities in return for others.

Our experience in Africa as well as in Asia validates that the decision on the price point and split for customer fees and commissions[21] needs to be decided by on-going communication between the two partners until customer economics[22] are well understood through pilot tests. Business planning and customer valuation exercises are instrumental in optimizing profitability. Some of our findings include:

- The commission model should be a tool to support both activations as well as usage. In West Africa, by providing commissions that are proportional to the number and size of transactions, the MFI ensures that agents push for increased usage, doubling activity rates after the new pricing and agent structure (elaborated in section 6) was adopted.
- While a threshold-based model[23] is appropriate in maintaining profitability for small value transactions, it needs to be simple enough for users to understand. For instance, in the case of the pilot in South East Asia, the operator adopts the same thresholds across all products to ensure ease of understanding for clients who often subscribe to more than one financial product. Percentage-based pricing[24] can be adopted, provided it is sustainable for low transaction values.
- The commissioning model should be formulated as a whole for the entire product suite to allow for one product/activity to subsidize another. For example, the pricing scheme in our pilots is designed so that the commission paid by the MFI to the MNO for deposits is partly offset by the withdrawal fee charged to the customer. Also, the operator may need to adopt a long-term view and support certain activities at a long-term loss. For instance, in the case of the West Africa pilot, the acquisition of new subscribers is subsidized by the mobile network operator, who in turn makes profits on subsequent cash-in/cash-out transactions as illustrated in Figure 7.
- Exclusivity in the initial stage is ideal in helping to protect investments made by both partners in launching mobile money, facilitating negotiations on profit sharing, as well as enabling partners to adopt a long-term view and commitment.

Figure 7 *

A balanced profit model that focuses on long term usage enhancement

Source: Business planning for pilots in West Africa and South East Asia

Typical pricing for 1st generation mobile money products i.e. payments and transfers

Transaction	Unit/Model	Customer Charged?	MFI Revenue	MNO Revenue	Comments
Activation	Per acquisition	–	v	x	MNO subsidizes acquisitions
Cash-In	Threshold-based	–	v	x	MNO subsidizes Cash-In; the goal is to make money on future transactions generated after deposit
Cash-Out	Threshold-based	v	v	v	MNO retains majority of the customer fee
Transfers	Percentage/ Threshold-based	v	–	v	MNO retains full fee paid by the MFI

Typical pricing for 2nd generation mobile money products i.e. savings and credit

Transaction	Unit/Model	Customer Charged?	MFI Revenue	MNO/Distributor Revenue	Comments
Activation	Per acquisition	–	x	–	Internal cost to the MFI - commissions absorbed by direct sales agents
Loan Disbursal	Threshold-based	v	v	–	Interest + small arrangement fee
Savings Deposit	Threshold-based	–	x	v	MNO subsidizes Cash-In; the goal is to make money on future transactions generated after deposit
Savings Withdrawal	Threshold-based	v	v	v	MNO retains majority of the customer fee
Loan Repayment	Threshold-based	–	x	v	MNO and its distributor network retain the fee paid by the MFI
P2P Transactions	Percentage/ Threshold-based	v	–	v	MNO retains full fee paid by the customer

Fee charged (Inflow) Fee paid (Outflow)

[21] Service fee charged by the distribution partner, in this case the MNO, to the lead service provider, in this case the Bank.
[22] Transaction volumes, transaction size, wallet size etc.
[23] Prices are fixed for a range of transaction amounts.
[24] When the fee is charged as a % of the transaction amount.

Marketing

#3 ■ 3.1 *The product sequence decision should be driven by the market's need gap as well as readiness for mobile money e.g. in markets new to the concept, it is advisable to start with 1st gen products to allow clients/operators to mature before launching 2nd gen services.*

When addressing the **sequence of product deployments**, or which service should be launched first from the full bouquet of 1st and 2nd generation mobile money products, several market and business conditions need to be considered. In Figure 8 we have provided some guidelines that can help achieve the right sequence for product launches.

It might not be the best thing to launch complex 2nd generation financial products amid the following conditions:

- Lack of partners with existing 1st generation mobile money products/low mobile money activity.
- MFI partners have deep-rooted legacy systems and processes.
- There is a real need for 1st generation services owing to high domestic remittance volume and relatively few safe and convenient channels of money transfer.
- Financial literacy as well as telecom familiarity of target segments is relatively low.

Prioritizing 1st generation products in such conditions is preferable to allow the model to mature, enable providers to go through the learning curve and customers to become accustomed to simple and low-risk services such as bill payments and remittances before being offered 2nd generation products, such as savings and loans. Our pilot in West Africa is one such situation. While the mobile payments product exists in the market, its activity rate is very low and hence most low income subscribers are new to it. The MFI involved in the pilot is an existing small institution with several traditional product lines currently served through brick and mortar branches and legacy systems. It has taken more than 12 months to set-up a mobile money distribution channel for the MFI (for loan repayment), given the number of complexities in integrating new models and processes into its normal business. An immediate shift to mobile savings or credit would have been quite challenging for the MFI.

On the other hand, 2nd generation mobile money products can be appropriate if:

- There are mature and medium or large-scale mobile money deployments in the market.
- Partnering MFIs/Banks are relatively technologically advanced, and can easily integrate their core banking systems with the MNO's mobile money platforms.
- The volume of domestic remittances is relatively low, or there are adequate and convenient existing modes of money transfer, thereby reducing the need for mobile payments.
- Customers are financially literate, as well as comfortable in using mobile value-added services.
- Customers trust transactions through non-branch/banks.
- A favorable regulatory environment that allows testing of innovative delivery models for mobile money.

An example of such a market is our pilot in South East Asia. The market has mature mobile money services. The partnering MFI is a virtual bank focused only on mobile banking products, with no conventional banking arm (and hence can integrate easily into the MNO's existing mobile money platforms). The country already has a regulated and easily accessible network of quasi-financial pawnshops that support money transfer even in remote areas of the country. Banking penetration, on the other hand, is low and existing MFIs/rural banks are not aggressively pushing savings products. All of these factors come together to make conditions favorable for launching 2nd generation products in this market through the selected providers.

Figure 8 *
Conditions for choosing product sequence
Source: Assessment of pilots in West Africa and South East Asia

Market Related factors

	Conditions favoring 1st gen products	Conditions favoring 2nd gen products
Urbanization Rate	Low with large number of split families eg. Kenya, Pakistan	High with concentrated urban centers e.g Philippines
Formal Banking Penetration	Low bank penetration with limited access to safe/convenient modes of transfer eg. Kenya, Ivory Coast	Low bank penetration with high access to safe/convenient modes of transfer eg. Philippines
Literacy (Telecom/Financial)	Cash Societies with low financial literacy; low mobile usage sophistication eg. Ivory Coast	Financial literacy extensively promoted by traditional MFI's; Mid-high mobile usage sophistication

Business Related factors

	Conditions favoring 1st gen products	Conditions favoring 2nd gen products
Maturity of 1st generation services	Newly launched/ low scale mobile money services underdeveloped regulations	Mature Mobile Money solutions with well defined regulations for Mobile Fin. Service
Business Lifecycle stage of MFI	Growth stage with several existing traditional product lines	Highly Mature/ Sophisticate or new startup that can focus entirely on mobile channels
Sophistication of MFI's IT capabilities	Low with several legacy systems and process that will need to be revamped	High with the ability to swiftly integrate with an MNO's advanced systems

1st gen products: Mobile money services such as airtime top up, money transfer, bill payments, loan repayment
2nd gen products: Complex financial products such as micro-savings, micro-credit and micro-insurance

■ 3.1 *(cont'd) developing a suitable product design: low income segments can be very heterogeneous in their financial needs; selectively targeting segments and tuning the targeting strategy to income cycles can provide a competitive edge to partners.*

The financial needs of low income segments can be well understood through systematic market research and pilot tests. In both our pilots we observed notable differences in the financial behaviors of various target segments. These differences relate to the level of financial exposure, access to banking, savings, and timing of high and low income periods. Segments also tend to differ in terms of their occupational ecosystems and cash flow needs which influence the nature of the financial products to be delivered. Partners should identify the largest sub-segments (by value and volume) and design products based on their typical needs. In South East Asia, we observed that occupation greatly affects the financial behavior of low-income segments. In addition, we identified the need to segment the market geographically, given the country's regional disparities as illustrated in Figure 9 and 10.

Partners should also study both magnitude and cyclical nature of the financial needs of selected target segments, and design products to address as well as take advantage of such cycles. In one of our pilots we observed that owing to the changes in income patterns through the year, it would not be ideal to sell the same financial product all year long. The level of savings varied significantly, becoming negative in certain months and increasing by 200-300% in others, as illustrated in Figure 11. This called for a flexible product design. Such differences were not only seen across segments and months but also across different regions within the country. Meeting these needs did not necessarily require a number of different products, but only modifications in the design and marketing approach to the core product. We observed that just by reducing the minimum deposit limits, the MFI is able to sustain activity levels in low income months, while in high income months it can capture bulk deposits with targeted promotions. Even for Safaricom in Kenya, for 1st generation products like money transfer, the seasonality trends are evident – the ends of the month being higher for cash-in transactions, and weekends higher for cash-out transactions. In specific locations (market towns), certain agents see a high volume of cash-out transactions in the early morning, while the late afternoon transactions are cash-in. Agents learn from these trends to ensure their cash-float is adequate.

Figure 9 *
Heterogeneous occupational sub-segments in one of the pilot geographies

Segment	Size	Saving capacity	Banking access	Specific needs	Existing products: Savings	Existing products: Loans
Manager/Civil servants	Low	High	High	Low	Many	Many
Professionals	Low	High	High	Low	Many	Many
Clerks/Technicians	Low	High	High	Mid	Many	Many
Micro entrepreneurs	Mid	Mid	Mid	High	Some	Some
Fisherman/ livestock	High	Mid	Low	High	Few	Some
Farmers	High	Mid	Low	High	Few	Some
Low wage workers	High	Low	Low	Mid	Some	Few
Service employees	High	Mid	Mid	Low	Many	Some
Pensioners	Low	Low	Mid	Mid	Many	Few

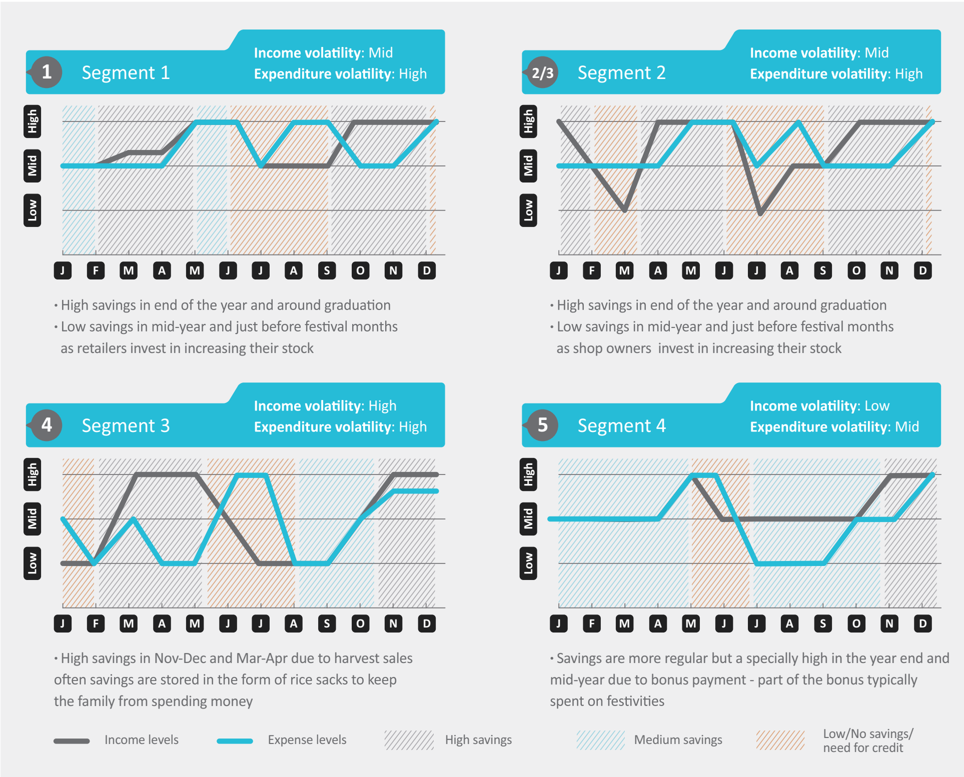
Unfavorable for Mobile MFI   Slightly favorable for Mobile MFI   Very favorable for Mobile MFI

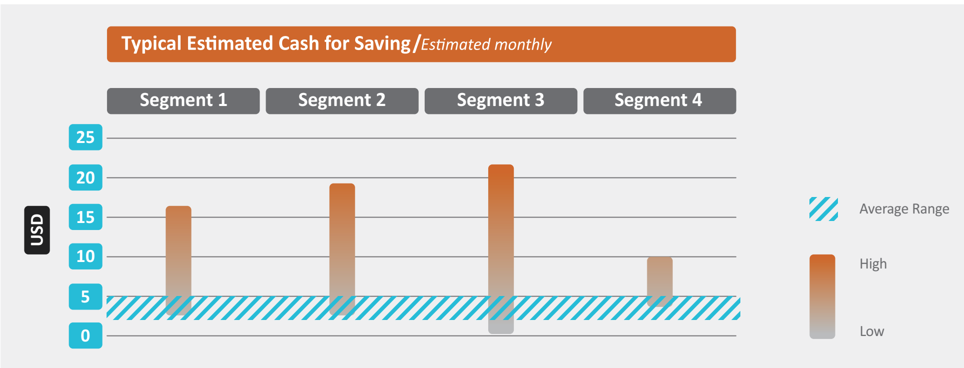
Figure 10 *
Opportunity assessment by regions

Region	Pop. density	Target segment size	Bank density	MNO's network coverage	MNO's distribution coverage
Region I	Very High	Low	High	High	Tbd
Region II	Low	Low	Mid	High	Tbd
Region III	Mid	Mid	Mid	Mid	Tbd
Region IV	Low	High	Mid	Low	Tbd
Region V	Mid	Low	High	High	Tbd
Region VI	High	Low	High	High	Tbd
Region VII	Low	Mid	Low	Low	Tbd
Region VIII	Mid	High	Low	High	Tbd
Region IX	Mid	High	Mid	High	Tbd
Region X	High	Mid	Mid	High	Tbd

Low opportunity   Unfavorable for Bank
Mid opportunity   Slightly favorable for Bank
High opportunity   Very favorable for Bank

Figure 11 *
Income cyclicality observed in selected occupational segments





• Farmers Focus Group: "I store savings as rice sacks so the family can't spend it and I can sell it when we need money"
• Shop Owners Focus Group: "I invest my savings into my store products that I can sell"
• Retailers Focus Group: "I usually save 100 pesos only and keep it with me so that I can spend it when I need to"

■ 3.2 ***Mitigating low activity levels:*** *Individual micro-savings stimulate low usage as a standalone offering; partners can offer commitment-driven bundled savings that address a key pain point, stimulate discipline and catalyze the movement of "under the carpet" savings to a bank through a flexible incentive.*

Our experience in South East Asia confirms that vanilla micro-savings[25] offers generate very limited usage. We observed that less than 30% of acquired subscribers made one or more deposits over a 4 to 5 month period when subscribed to a pure flexible savings account. Our research and subsequent pilot tests showed a twofold to threefold increase in the level of activity after adopting two approaches:

■ A catalyst that incentivizes savings: We observed in our field visits as well as in focus groups that for most customers, the perceived benefits of formal savings were unclear. Even after significant deposit campaigning and customer education (through sales agents), the deposit rates did not improve significantly. However, our focus group tests revealed that one of the main disadvantages of savings products for subscribers was their high variation of income, which makes them hunt around periodically for financial support through informal channels and existing credit institutions. Subsequently, we developed a bundled product that could resolve this sticking point by offering other financial products in addition to savings.

■ A commitment to save that determines the magnitude of the incentive earned: given that most low income target segments are not self-disciplined savers and lack ability to perform financial planning, the MFI in South East Asia tested a pre-designed savings commitment and schedule. The savings account is designed so that the use of the bundled product attached to the account can only be triggered if the subscriber saves regularly.

The subsequent pilot test of a commitment based bundled savings product attracted almost 3 times the activity levels compared to a standalone regular savings product, as illustrated in Figure 12. When the bundled product met their perceived financial needs or addresses a perceived disadvantage, we found them more willing to save actively. Potential bundles can be selected based on conditions prevailing in a given target segment or market, and can include a credit line, a higher interest on fixed deposits or a cheaper insurance product.

[25] Savings account with normal (low) interest levels, no incentives/bundles with other financial products, but tuned to the needs of low incomes segments such as low minimum transaction limits, no min./opening balance, etc.

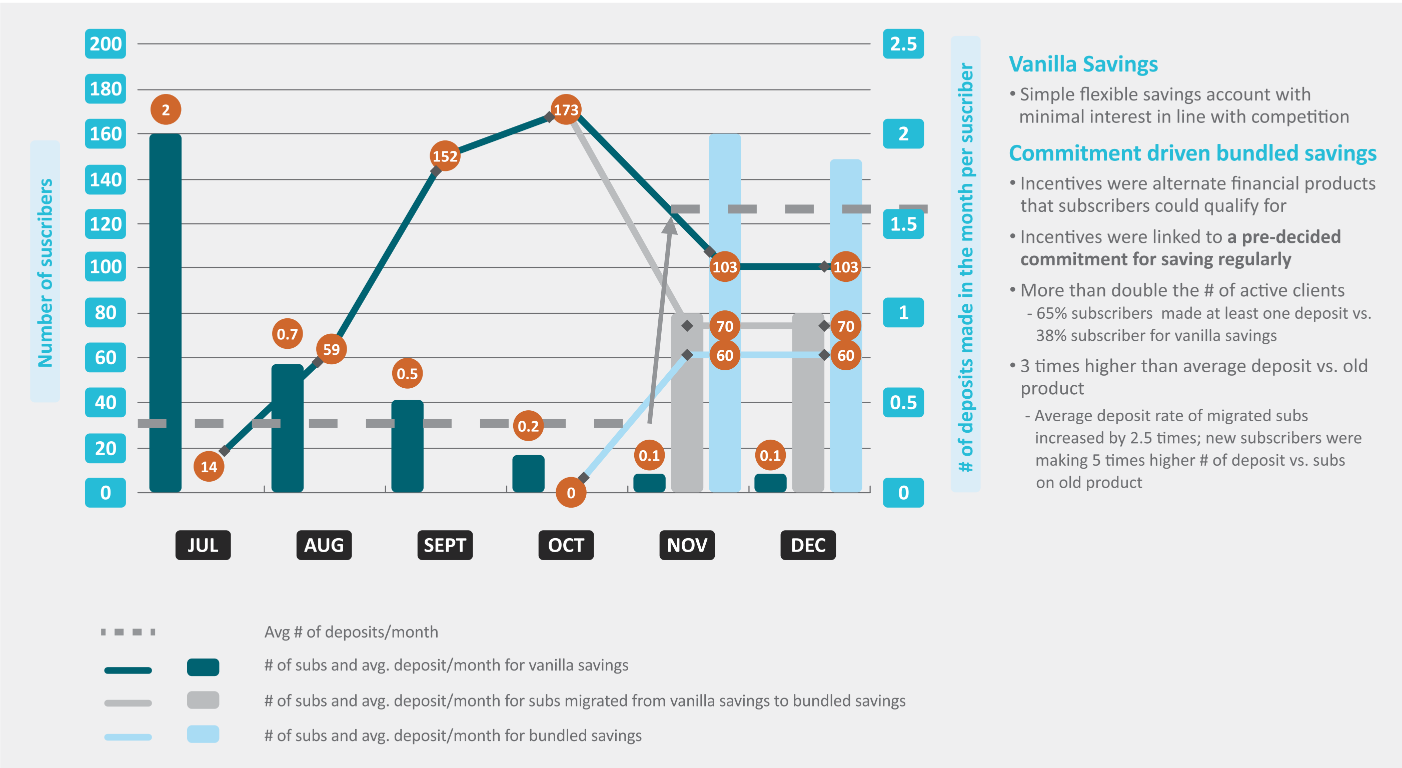
#4 Customer Experience Management: Pilot tests should be used to create a simplified customer journey focusing on building trust, ensuring accessibility, facilitating usage and maximizing customer lifetime value.

Pilot tests should be used systematically to attain an **early diagnosis of the main obstacles customer face in understanding and using the service**. Partners should enable systems which **reinforce trust and facilitate adoption by ensuring the success of the first transaction** and simplicity of the interface (mainly using USD or STK), and introducing short and simple notification messages, proactive analysis of any transaction failures and the provision of reporting passbooks[26]. The significance of managing the customer experience is proven by our experience in the West Africa pilot, where we identified two key areas in the customer's journey that were impacting activity rates.

- **At activation**: there was a gap of up to 30% between the number of customers acquired by the field agent and those activated in the system (and hence ready to use the service). Due to the absence of an automated activation process, customers need to wait to be able to use the service and might forget how to use it or decide not to. This issue required resolution to guarantee the reliability of data for the purpose of MFI commission payouts.
- **Post Activation**: Analysis of transaction data revealed that around 35% of the customers attempting to make a transaction failed to do so and dropped out. Given that 60% of the customers who had a first successful transaction remained active, solving the issue of transaction failure might potentially reduce the overall drop-out rate by up to 50%. In initial transactions, 95% of the failures were due to password mistakes.

A resolution of both these issues over time contributed to significant improvements in usage rates, as illustrated in Figure 13.

Figure 12 *
Comparison of vanilla savings vs. commitment-driven bundled savings
(double # of active accounts and ~3 times the deposit rate for later over the former)
Source: Product tests in the South East Asia pilot



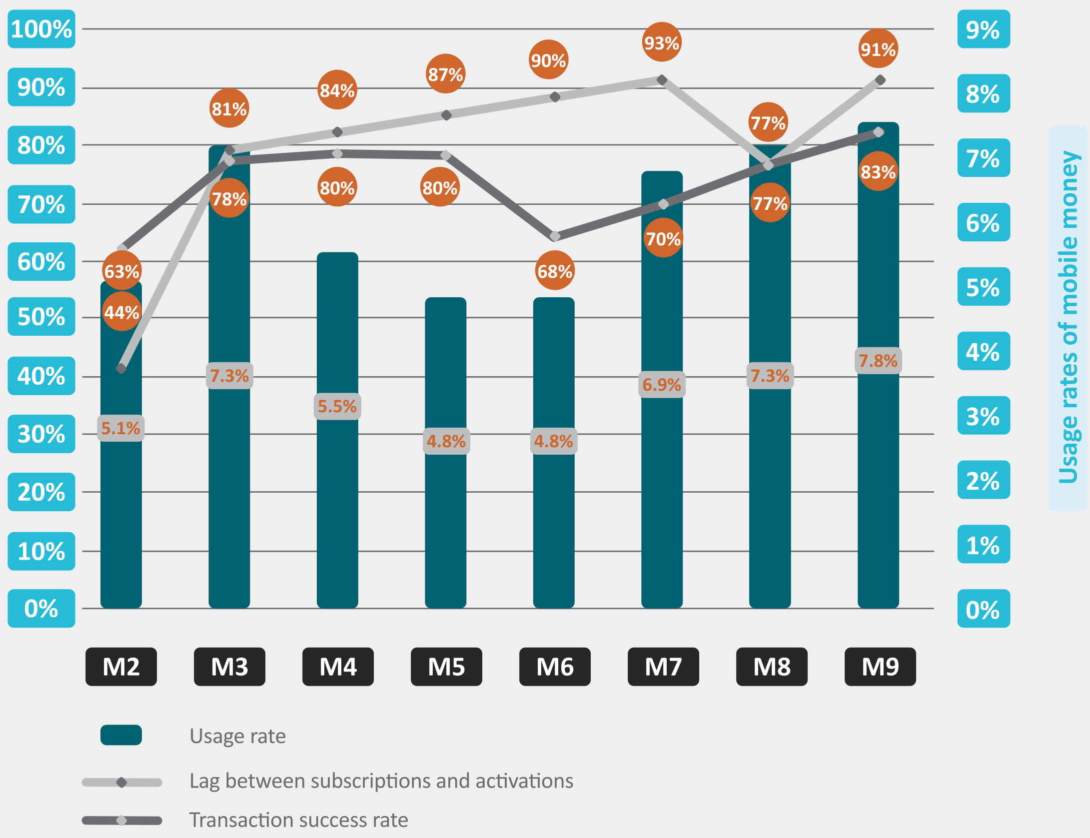
[26] A log book which is stored by customer and is stamped/filled by the cash-in/cash-out agent every time there is a transaction made by the customer.

Based on the overall experience in both South East Asia and West Africa, we have identified ways to improve end-to-end customer experience management, focusing on increasing usage while reducing costs as illustrated in Figure 14. For instance, in the new prospect acquisition phase, some of the best practices include simplified communication and thorough tutoring of the customer. In our focus group tests in South East Asia, we observed that most of the low income consumers tend to comprehend or remember only a couple of product features, a behavior trait that sales agents should be trained to mitigate. Even the complexities of small products can almost double the time the sales agent needs to explain the product to end users, and increase the possibility of alienating them with the jargon. These issues need to be considered in designing the customer journey.

In managing an active customer, achieving a positive customer experience requires an easy usage process, a consistent experience at the point of sale and proximity of cash-in/cash-out centers. We have seen this in Kenya, where Safaricom built the M-Pesa channels to be separate from the airtime agents – with a different and standardized customer experience, and creating strong trust and reliability often as the sole focus. In another observation in the South East Asia pilot, we saw that unless customers can walk a relatively short distance[27] to reach the cash-in/cash-out centers, they may be unlikely to use the service. Also in our focus groups for the same pilot, we noted that any delays or mistakes from the cash-in/cash-out agent could instantly shake the customer's trust in the service.

Finally, in terms of churn and follow-on management for limited lifetime products such as a credit line, the mobile MFI should define automated procedures, for example in offering follow-on products, paperless subscription and so on. By doing so, the MFI in South East Asia is able to reduce cost per activation, which in turn significantly influences profitability.

Figure 13 *
Impact of customer experience management improvement
Source: West Africa Pilot



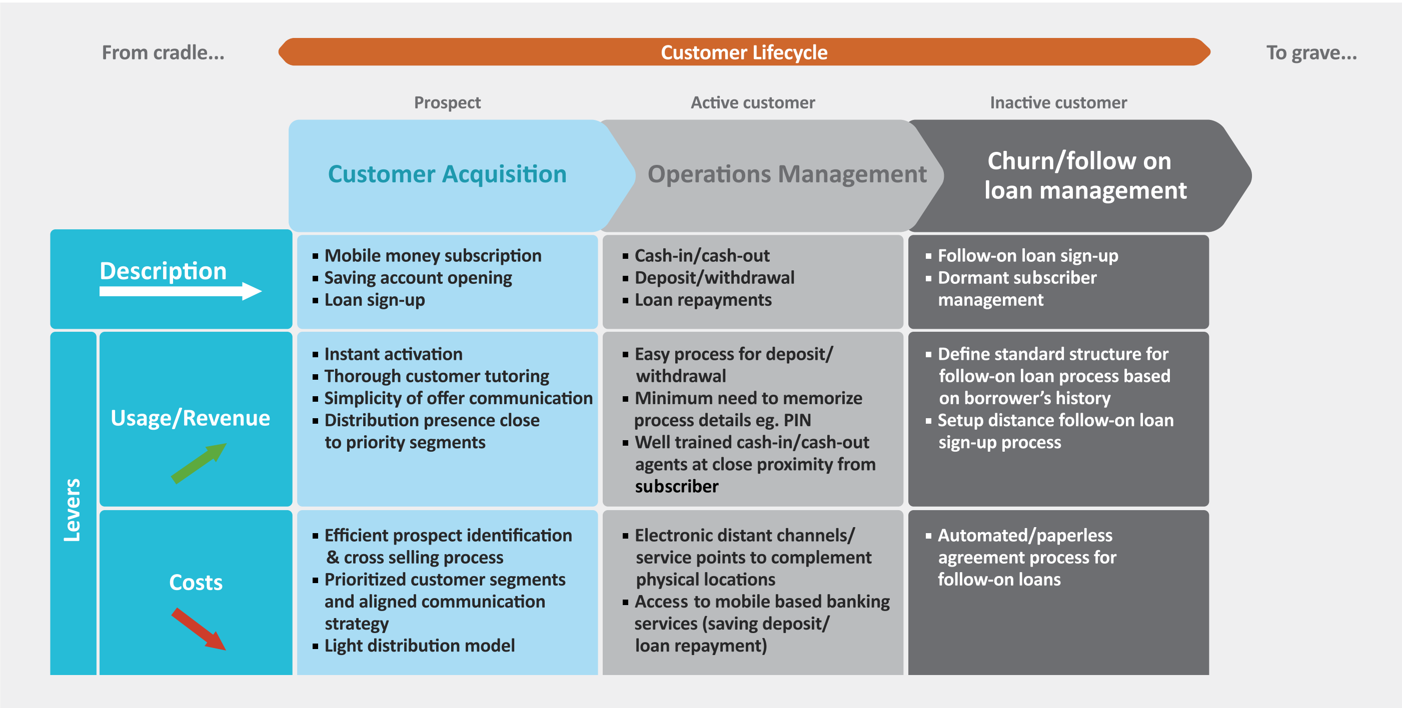
Note: Activity rates in month 4 and 5 low due to the absence of a performance management system

[27] Drop of activity rate is not indicated in the graph 20 since it is a monthly evolution.

Figure 14 *

Key stages and levers for customer experience enhancement

Source: Oliver Wyman Analysis



#5

■ 5.1 ***Building trust and consumer sensitization:*** *A well recognized brand can generate a first service trail but does not assure sustained usage; brand re-positioning as well as further trust building measures might be needed at both launch and customer acquisition stages.*

Our focus group research in South East Asia confirms that trust is the most important factor for low income consumers especially when it comes to choosing whether to adopt savings products. In our focus group research in the South East Asia pilot, we asked respondents across five segments to rate seven factors related to a savings product. Summarized results can be seen in Figure 15. In four of the five segments, "a trusted name" emerged as the most important consideration when subscribing to and using savings products with any financial services provider.

Hence, one of the key roles of the **branding strategy** is to establish trust in the service. In our view **both the brands** of the Bank/MFI and the MNO **need to be distinctly visible,** preferably through co-branding. This is essential to combine a high brand awareness, enjoyed usually by a MNO's brand, with the credibility of a bank's brand, as shown in Figure 16 hereafter. In the case of our South East Asia pilot, where the MFI's brand was not known, having the MNO's brand in a co-branded logo helped generate the first service trail from clients. The MNO's mobile money brand was strongly associated with money transfer and airtime load products and hence co-branding with the MFI helped to reinforce the product as a new banking offer for savings. It is important that the brand can be easily associated by clients and its positioning is in line with the target segments. Our observation is that mass market low income clients are likely to focus on emotional values (such as trust and diligence) when choosing their brand.

Figure 15 *
Savings adoption criteria ranked by focus groups with multiple low income segments
Source: Focus Groups in Pilot Location

Attribute Ranking	FGD 1	FGD 2	FGD 3	FGD 4	FGD 5
1	Trusted Bank	Trusted Bank	Trusted Bank	Withdrawal/Deposit Flexibility	Trusted Bank
2	Distance from MIMO [1]	Withdrawal/Deposit Flexibility	Distance from MIMO	Distance from MIMO (1)	Min. Deposit
3	Withdrawal/Deposit Flexibility	Interest earned	Interest earned	Trusted Bank	Interest earned
4	Interest earned	Min. Deposit	Withdrawal/Deposit Flexibility	Interest earned	Withdrawal/Deposit Flexibility
5	Opening Fee	Distance from MIMO (1)	Opening Fee	Min. Deposit Opening Fee	Opening Fee
6	Min. Deposit	Opening Fee	Min. Deposit		Distance from MIMO

[1]MIMO stands for Money in - Money out centers; another terminology for the cash in/cash-out agents

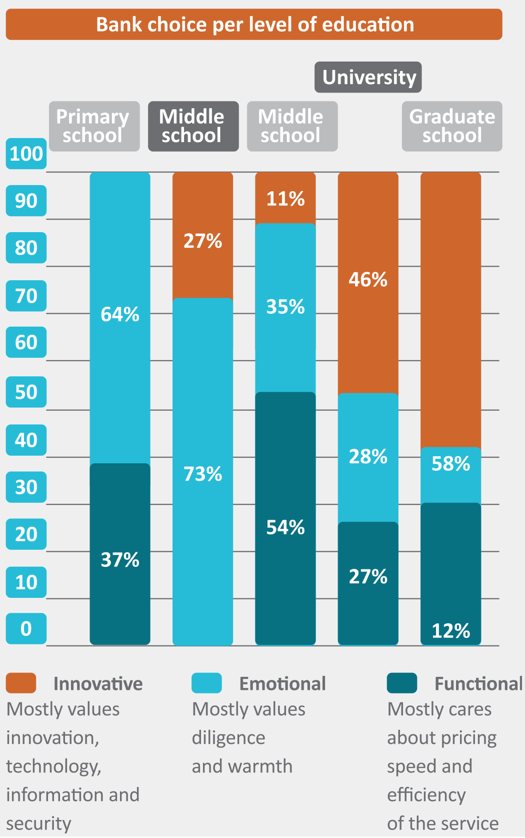
Figure 16 *
The brand positioning of bank and MNO partnership

Source: Oliver Wyman Analysis, Voice of Customer Survey

<table>
<tr><th></th><th rowspan="2">Single brand</th><th rowspan="2">Co-branded (MOST RELEVANT OPTION)</th><th colspan="2">Separate brands</th></tr>
<tr><th></th><th>Mobile</th><th>Bank</th></tr>
<tr><td rowspan="2">PROS</td><td rowspan="2">▪ No confusion with existing offers
▪ New name revealing a new concept
▪ New brand could combine, best brand attributes from mobile & banking world</td><td rowspan="2">▪ High brand awareness for both
▪ Bank's brand can improve credibility and trust
▪ MNO's brand brings in widespread awareness</td><td colspan="2">▪ Easy identification by customer</td></tr>
<tr><td>▪ Strong, well known MNO brand
▪ Clear differentiation from competition
▪ Brand attributes as trusted brand, market leader, technology leader</td><td>▪ No confusion with existing offers
▪ New name revealing a new concept
▪ New brand could combine, best brand attributes from mobile & banking world</td></tr>
<tr><td>CONS</td><td>▪ No brand awareness
▪ No credibility/trust
▪ Hard to understand from the customer point of view (two businesses under one name)</td><td>▪ Unclear split of MNO and Bank's business (possible combination of brand attributes)</td><td>▪ Lack of banking reputation
▪ No close relationships to individual clients
▪ Less credibility for banking related offers</td><td>▪ Lower brand penetration
▪ Lower differentiation to other brands
▪ Brand less emotional than mobile brand</td></tr>
</table>

In addition to a strong branding strategy, efforts from marketing and communications on consumer education and heightening awareness are also typically needed during two key stages – during the offer launch and during the client's acquisition.

- **During offer launch:** At this stage, the focus of the awareness campaign is on conveying the benefits of formal banking, and inducing a behavior change to encourage financial discipline amongst low income subscribers. Operators such as Safaricom and Tameer, when launching mobile money products, have utilized national above-the-line media campaigns with simple messages, usually relating to safety and convenience. Alternative strategies might include endorsements from influential public figures, or nationwide below-the-line educational campaigns. However, our pilots were not large enough to test the above strategies and their impact still needs to be confirmed.
- **During customer acquisition/ sales:** Education at this stage involves helping the customers select the right product, making them understand how to use it, and how to best use it to their benefit in the long-term. In our West Africa pilot, initiating and maintaining street marketing activities in strategic areas has considerably increased adoption of the service by agents and usage by customers. The MFI used "Mobile Coaches", a unique type of agent, fulfilling a combination of responsibilities. These are described in more detail in section 6. Over a period of 4 months, these mobile coaches helped to double the activation rate of mobile money for the MFI.



5.2 Optimizing marketing spend: *partners can maximize the value extracted from marketing expenditure by allocating budgets based on the financial cycles of target segments and adopting alternative marketing techniques to boost activations.*

Aligning marketing spend with the financial cycles of main target segments can help operators maximize impact and lower marketing costs per active subscriber. Referring back to Figure 11, if marketing budgets are based on income cycles by segment or time of the year, and subscribers are approached at a time when they have savings, they are more likely to start using a savings account than if they are approached during periods of negative cash flow. Operators should adopt a very flexible approach in focusing marketing efforts along three axes: segments, regions and income cycles. From the experience in South East Asia for mobile micro-savings, we saw that customers acquired in low income periods are more likely to become dormant over time. We saw less than 0.2 deposits per month per customer in periods before harvest season (when farmers tend to have negative cash flows). On the other hand, heavy marketing push in high income months almost doubled the deposit rates to 0.5 deposits per month per customer during festive months (when micro-business owners have high income), increasing the value extracted from every marketing investment many times over.

In addition, partners can use events, referrals and viral marketing techniques to increase customer activation rates. Below we have listed some of the acquisition initiatives and tools that have been effective in the various pilots:

- **Event marketing** – The MFI in South East Asia tested the impact of community events co-branded with the MNO, such as fiesta celebrations and weekend savings events, on activations per dollar spent. The impact as shown in Figure 17 was a decrease in activation cost per client by 25% and a day activation rate 6 times higher than door to door sales. These events also serve as a platform to engage cash-in/cash-out agents, carry out cross-selling of banking and telecom products, and build awareness around savings.
- **Outbound Call Campaigns** – In one of our pilots, the MFI tested the success of both outbound calls as well as SMS campaigns in identifying prospect clients. With outbound call campaigns, the conversion rate of prospects to customers has been as high as around 20%. Such campaigns can be executed in a very targeted manner by the MFI by utilizing the MNO's data, for example relating to location and demographics, to identify the right prospects for selling its products. Since recruitment meetings can be set up over the phone, agents have to spend less time on the field finding interested prospects, hence increasing their productivity, as illustrated in Figure 17. However, we did not see the same impact with SMS campaigns; here, the prospect conversion rates were only 2-3%.
- **Viral marketing through strategic word-of-mouth**: Another low-cost method of increasing activation rates in the pilots was through referrals, generated either from cash-in/cash-out agents or through existing subscribers. Cash-in/cash-out agents are well connected in their localities, particularly in remote areas where they are also visited by clients for everyday purchases. The MFI should exploit the ability of such agents to generate referrals. We also observed that well-networked individuals such as local municipality heads can be effective ambassadors and provide several referrals if they themselves have been satisfied subscribers. In several instances, group acquisitions were achieved through referrals, when the agent or client proactively invited multiple prospects (in groups of 8 to 10 individuals) to the same agent meeting. It was subsequently possible for the agent to increase the number of customers signed on the day by two to three times.

Figure 17 *
Impact of marketing activities on activations
Source: South East Asia Pilot

	Description	Activations/Day	Cost as % of Door-Door (acquisition)	% Customers with at least 1 deposit	Marketing Impact
Event Marketing	Activation Event in community center collaboration with MNO	~180	70-75%	30%	
Door-to-Door	Direct sales agents visiting door-door and in busy market areas	10	-	50%	
Word of Mouth	Referrals provided either by MIMO agents or through existing saving subscribers	20	50-60%	30-60%	
Outbound Tele Sales	Outbound sell calls to clients from MCAP followed by meeting with agent	12	75-80%	NA	

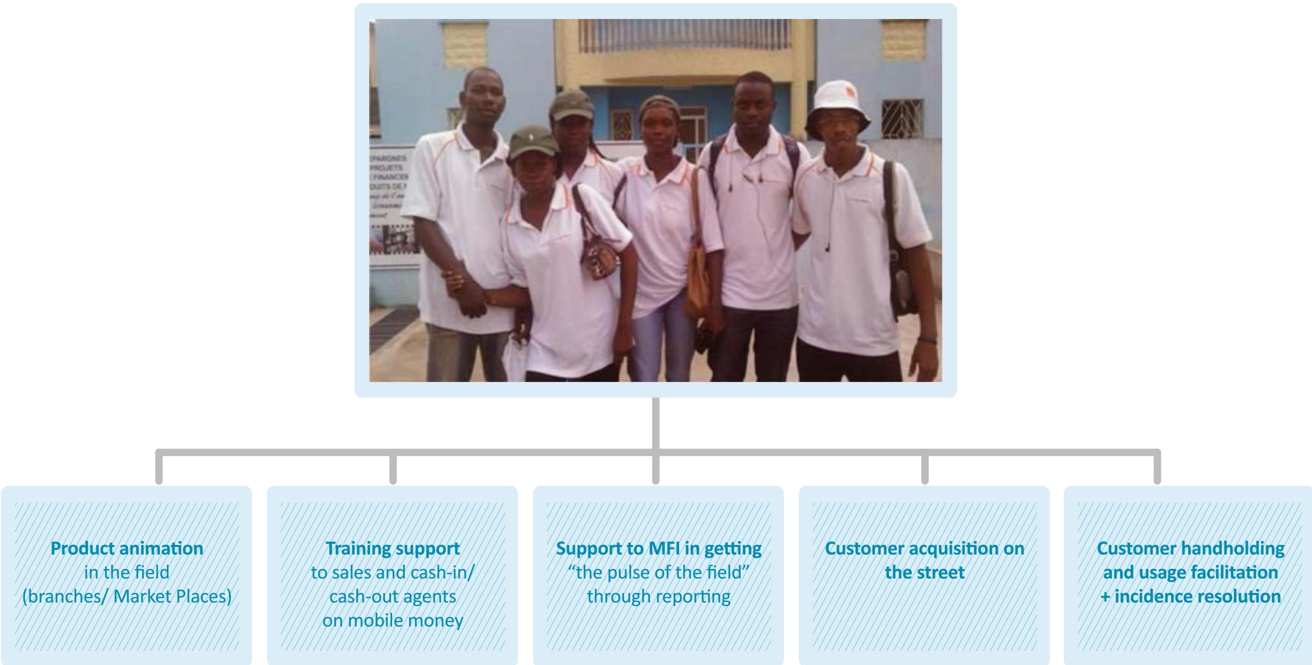
Sales & Distribution

A mobile microfinance enterprise consists of multiple layers of agents performing varied responsibilities relating to float management, customer acquisition and cash-in/cash-out. We have derived the following key lessons from setting up and integrating the agent network in our pilots in West Africa and South East Asia.

#6 **To ease agent integration** we found two approaches effective – An intermediate agent ("Mobile Coach") responsible for sales support and client management, who bridges the agents of the MNO and MFI; MNO super agents to facilitate liquidity management so that cash-in/cash-out agents can run efficiently.

In our pilot in West Africa, we tested a new agent type – a "Mobile Coach" dedicated to facilitating the promotion and distribution of mobile money as well as its adoption by clients and the MFI itself. The main functions carried out by these agents in the West Africa pilot are illustrated in Figure 18.

Figure 18 *
Functions of mobile coaches deployed through the MNO in West Africa pilot
Source: West Africa Pilot



These agents, when managed through a systematic performance management system, were able to achieve a 133% increase in activation rate, as illustrated in Figure 20. In addition we noted a drop of almost 20% in activation rate when the mobile coaches were absent from the field.

Because of this impact, the MNO has already adopted the concept by recruiting 200 such agents across the country, after having only six operating during the pilot. However, to achieve the desired impact, long-term and effective monitoring and performance management of such agents (described later in this section) is imperative. We have witnessed a sharp decrease (up to a 28% drop in activity rate[28]) in the impact of mobile agents when management of their performance was poor.
Another key aspect of agent integration is liquidity management. Here, the MNO's super agent[29] can play an important role, as our pilots confirmed. The MNO's agents already visit the cash-in/cash-out centers of the MFI on a daily basis to supply airtime through mobile money. It was therefore easy to include the responsibility for float management of microfinance products into their everyday activities. We have seen the same in Kenya, where super agents or aggregators have played a major role in helping to facilitate liquidity management for the agents at the point-of-sale. One aggregator in Kenya, whom we interviewed, manages a large number of agents (more than 100) across several locations, and has developed a core skill in liquidity management. Their role in supporting the agents, and eliminating their need to cease trading while travelling to rebalance their float, helps to increase profitability.

[28] Drop of activity rate is not indicated in the graph 20 since it is a monthly evolution.
[29] Super Agent is a single point of contact for the MNO's distributors for a large number of point of sale (POS) within a specific area or province. They manage the POS and handle the supply of inventory to ensure availability of MNO's products at the POS.

#6 (cont'd) Agent Selection: MFIs should adopt a nationalized selection criterion to sign up agents who are likely to be successful with financial products.

Cash-in/Cash-out agents are the face of mobile financial services. Their level of engagement with customers and impact on their behavior is significant. In our pilot in South East Asia we observed that a majority of the customers stuck to the one cash-in/cash-out agent, even though they could perform transactions elsewhere. As seen in Figure 19, well engaged cash-in/cash-out agents had much higher activity rates, and more than half their customers were recruited through their own references.

However, these agents are not directly managed by the MFI or the MNO. They typically run many other activities, such as airtime sales, farming, grocery sales and restaurants. Supporting cash-in/cash-out on mobile financial products is not their core business. To ensure optimal long-term performance, MFIs should adopt nation-wide selection criteria for these agents, focusing on three attributes – reliability, suitability and motivation, as illustrated in Figure 19.

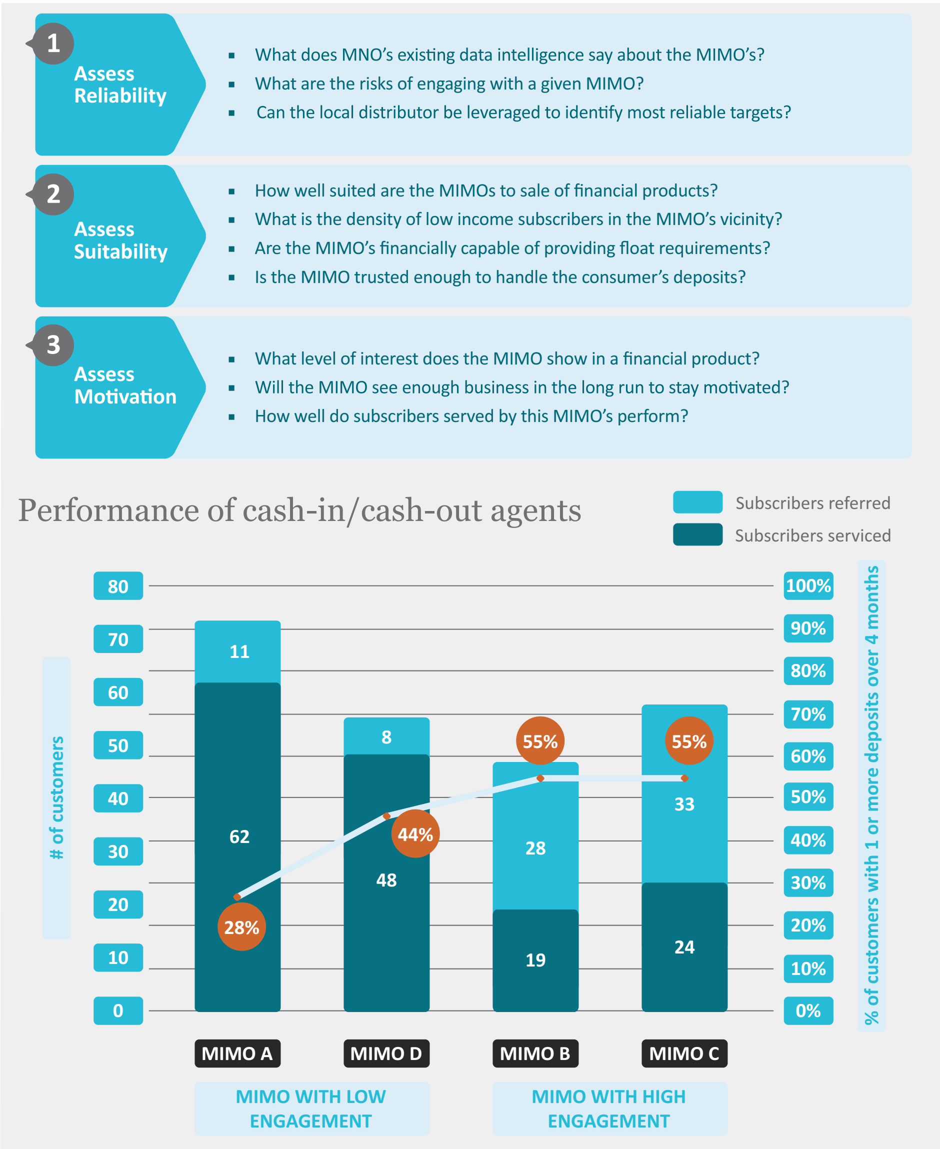
We observed that agents with high income or many varied occupational activities were often uninterested in promoting financial products e.g. Money-In Money-Out center A (MIMO A). On the other hand, agents whose income was lower and who had serviced a large catchment of subscribers in remote areas were performing better (MIMO B and C).

Low capillarity of MNO's existing mobile money agents can make it challenging for MFIs to scale up their services. A potential way to achieve this is to seek distribution partnerships with institutions that have an existing capillary network of trusted customer service points. Examples of these include regulated formal/informal banking channels for rural customers such as pawnshops, SOCCAs/ROSCAs[30], raw material suppliers/creditors/clients of target consumers etc. In one of our pilots, the mobile MFI is considering serving low income government workers through co-operatives (that disburse salaries) and farmers through the POS of a large farm input supplier. MFIs can also engage a layer of intermediaries for agent recruitment, in partnership with the MNO e.g. the MFI and MNO can jointly engage a third party provider for signing up agents or can hire aggregators, who play a core role of hiring and managing agents for the service providers (as done by Vodacom in Tanzania)[31]. If the MNO sees cross-selling opportunities/market share gains in the mobile MFI's target client base, such a joint partnership can be more plausible. However, it might be early to assess the effectiveness of the above strategies in scaling up the MFI's agent network as it still needs to be tested on a wider scale.

Figure 19 *

MIMO selection should be standardized using KPIs that can indicate strength on 3 key pillars...

Source: Oliver Wyman Analysis



[30] SOCCA: Savings and Credit Cooperative ROSCA; Rotating Savings and Credit Association.
[31] Source: GSMA – Building a network of mobile money agents.

#6 **(cont'd) Agent Incentives:** Partners must implement a value based incentive scheme that encourages both activation and usage and should initially be prepared to subsidize the agent network to ensure the business is attractive to them.

In our pilot in West Africa, there were three necessary objectives for sales agents:

- Maximize activation rate per agent per day.
- Ensure that the usage rate of mobile money in pilots is higher than the national average.
- Encourage MFI's customers to make transactions via mobile money.

If they fulfilled these objectives, agents could earn up to 30% above their base pay. We saw that this incentive scheme doubled the daily activation rate and increased usage rates by 60% for the MFI in West Africa over a period of four months, as illustrated in Figure 20.

While setting up the distribution network, subsidies for cash-in/cash-out agents, who are not directly employed by the MNO or MFI, can boost initial sign-up significantly. We believe that the following two-tiered incentive scheme might be necessary to ensure that mobile money is an attractive business for them:

- Commissions should ideally be transaction-based in line with the agreed profit model between the MFI and the MNO. Partners should decide the size of the network so that:

  1. *Number of customers per agent is high enough to ensure high commission income.*
  2. *Number of customers per agent is low enough to ensure the agent can service client's float requirements.*

- An additional incentive to ensure initial interest from agents, when transaction volumes are low: Our field visits in Kenya revealed that an average M-Pesa agent earns (through commissions) 50% more than the average per capita income. Such an incentive is needed to make a business worthwhile for cash-in/cash-out agents. However, as we experienced in our pilot in South East Asia, given the low initial volume of transactions, the commission income for agents can be insignificant during launch phase.

Operators should therefore compensate agents through alternative schemes such as:

1. *Commissions for each subscriber acquired through the referral of the cash-in/cash-out agent.*
2. *Competitive rewards for high deposit rates – for example, cash rewards for top performing agents, to be handed out at local community events.*
3. *Provision of a liquid mobile wallet32 so that mobile money can be used interchangeably between different products. For example, in South East Asia, agents can use the mobile wallet for airtime sales as well as savings products, increasing their portfolio of products sold and commissions earned.*
4. *Support the agents in growing their core business through financial assistance and advice. In South East Asia, the agents who had previously received credit from the MFI for their businesses were seen to have a much higher commitment to the service.*

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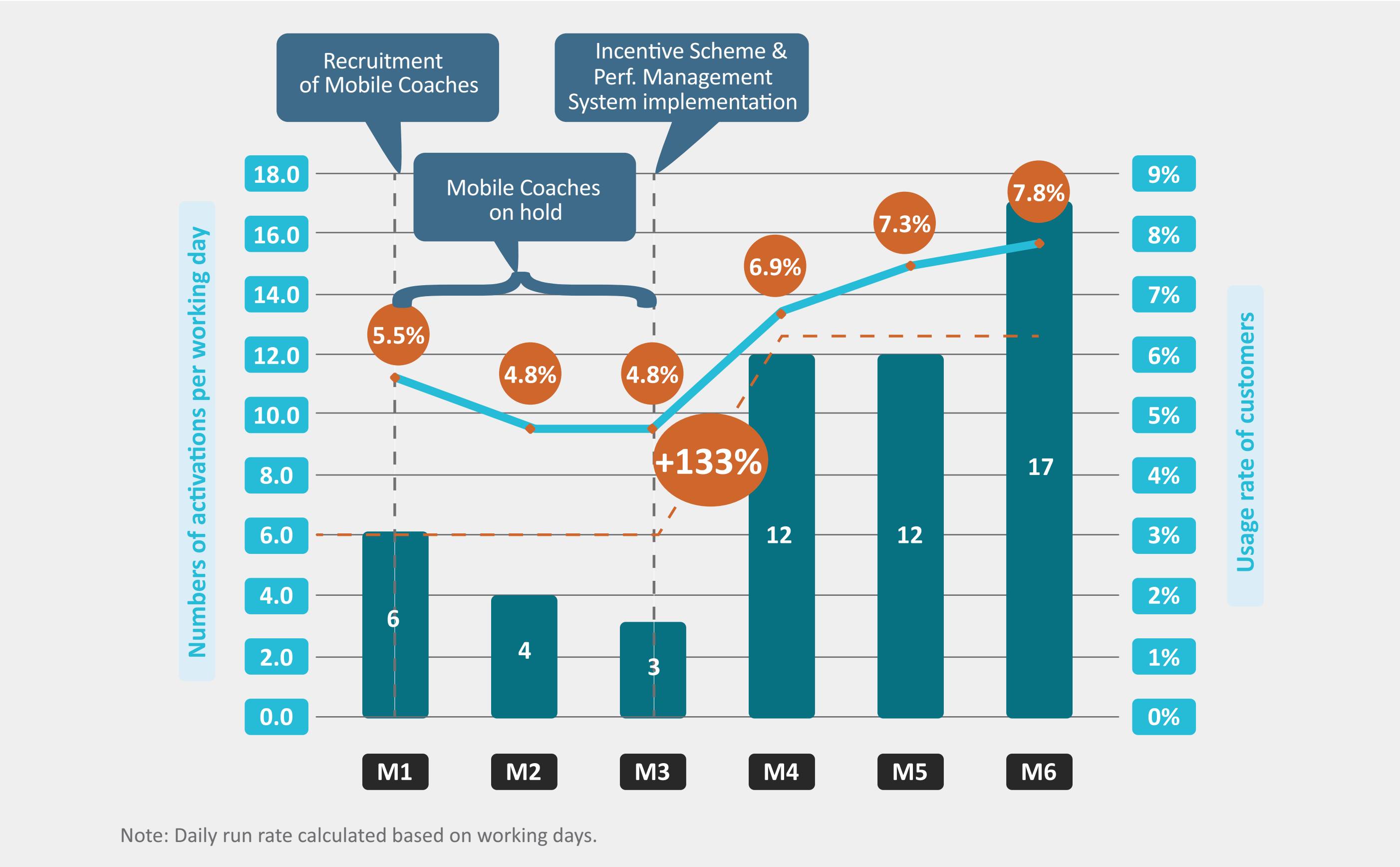
[32] Mobile Wallet is the electronic money which can be used through a mobile enabled application to make convenient payments to any designated affiliates (through the mobile phone).

#6 (cont'd) Agent Management: in order to achieve the desired impact of incentives, partners must implement a strategic performance management system.

Figure 20 *
Impact of Mobile Coaches, Incentive scheme and performance management (Monthly evolution)



Comprehensive agent management consists of two elements:

1 *Agents need to have fixed and clear quantitative and qualitative objectives. Targets must be defined both in terms of customer acquisition, customer usage and quality of service (including availability of the service). Signing up exclusive contracts with agents can significantly improve performance management in countries where this is permitted, and the impact of incentives can greatly increase adoption of the service.*
2 *Partners need to follow a thorough reporting and monitoring system to track performance on objectives.*

The monitoring system implemented in our pilot in West Africa comprised three main elements:

1 *Daily or weekly activity reporting initiated by the agent, and facilitated by the Mobile Coaches.*
2 *On-the-ground meetings, surprise visits and mystery shopping[33]. The Mobile Coaches in our pilot in West Africa play the same role as aggregators do with M-Pesa in Kenya. The latter oversee agents, to ensure the overall customer experience is at the standard expected by the MNO.*
3 *Debriefs and meetings at the branch on a daily or weekly basis to discuss issues and provide feedback.*

As seen below in Figure 20, the impact of an incentive scheme and performance management system on customer activity is clear from our pilot in West Africa, where we saw an increase of up to 60% in the average usage rate. But, as already emphasized, the impact shown below was achieved with a combination of three methods: the use of agents to help adoption rates (Mobile Coaches), an incentive scheme and a performance management system. We believe that all the three ingredients must co-exist to realize such benefits and the absence of one or the other might dilute the overall impact.

[33] Mystery shopping is the practice adopted by auditors/service providers for checking performance and service at retail outlets by visiting them as disguised shoppers.

Credit Risk Management

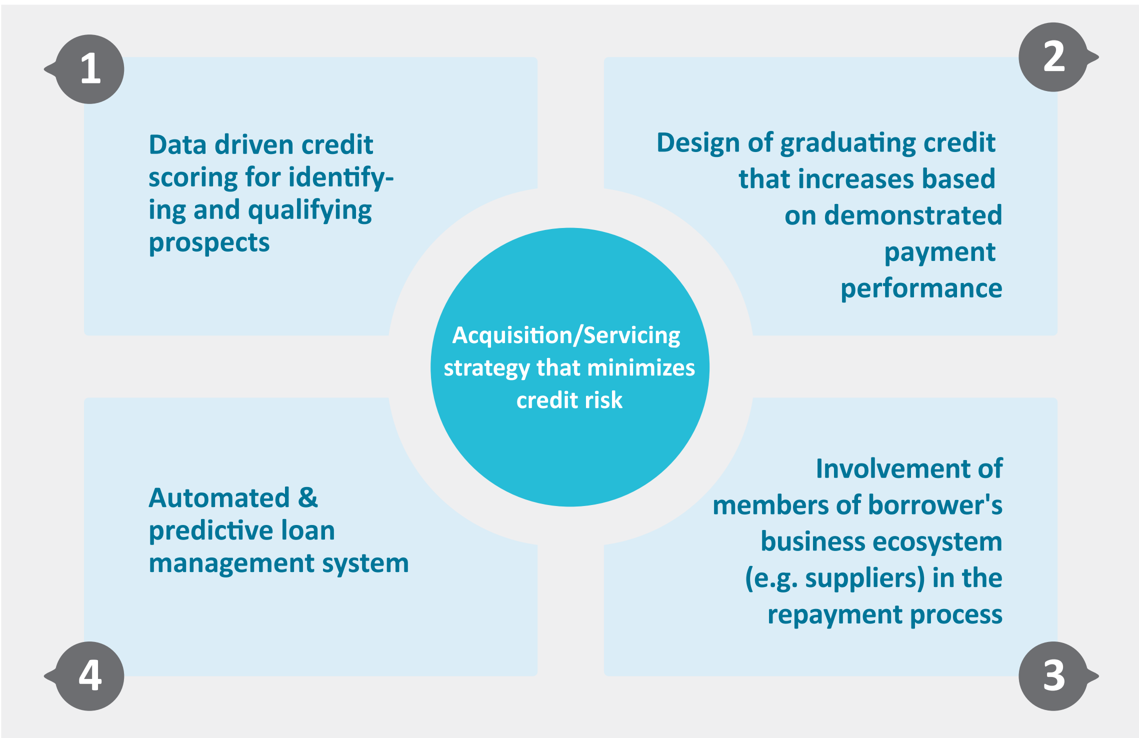
#7 Manage risks on remote channels: A data-driven & automated risk management system can help a Mobile Microfinance enterprise achieve single digit default rates on traditional micro-lending.

The virtual MFI in our pilot study was able to achieve single-digit default rates on its microcredit product. Based on the learnings from this pilot, we believe there are four essential elements in maintaining low risk on individual lending through the MNO's distribution channel.

The first step is to identify low risk target segments – the MFI can gather basic data to enable a first calculation on creditworthiness. MNO data on subscribers plays an important role for this initial scoring[34]. The identification of such prospects is followed by a face-to-face customer due diligence interview which is stipulated by the regulator and allows further assessment of the prospect's creditworthiness and repayment capacity. In our pilot, the virtual MFI plans to electronically record this information through a workflow and credit risk management system to statistically[35] define credit worthiness and affordability of a potential borrower' and automatically decide on loan eligibility and type of product to offer. The credit risk management system developed by Experian MicroAnalytics statistically defines creditworthiness and affordability of a potential borrower' and automatically decides on loan eligibility and type of product to offer.

Product design also plays a very important role in risk management – the goal is to minimize risks and enable the ongoing review of creditworthiness. The MFI in our study achieves this by limiting the first loan amount and increases loan limits only after payment performance and affordability have been confirmed. It has also been able to avoid default by involving the borrowers' vital business partners in distribution (for disbursal and payment collection), hence creating a deterrent as the borrower fears losing credibility with suppliers if he or she defaults on the loan. Finally, the bank should develop an automated and predictive loan management system that can preemptively flag up late payers or likely defaulters, allowing for agents to take action as required. This is a system that the MFI is currently putting into operation.

Figure 21 *
Key levers for managing risk on individual mobile micro-lending
Source: South East Asia Pilot



[34] MNO's data related to subscriber's mobile money usage, demographics etc.
[35] IT systems for business process/workflow automation and risk management to be developed by the bank's technology arm.

Concluding Remarks

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Mobile Microfinance can have a significant impact on increasing financial services access for unbanked subscribers by circumventing the disadvantages of physical bank branches. The benefits of this service are not just social but also economic. It is a cost-effective way for banks and MFIs to reach the masses by capitalizing on the widespread penetration of telecom distribution networks. We also see a new breed of intermediaries emerging, that allow partners on both sides to interact smoothly by playing the "interconnection[36]" role, making money on transactions rather than the spread.
However, as we have seen in this study, success can appear a distant dream, given the challenges that such operations typically face. It is important to assess if the market is ready for 2nd generation mobile financial products. Complexities lie in both structural factors such as low financial literacy and lack of adequate regulation, as well as a lack of benchmarks and expertise in a relatively new domain for both banks and telecom operators. Devising and implementing a successful model can require extensive education of subscribers, providers as well as regulators, depending on the maturity of the mobile money market in a given country.
A large scale presence of 1st generation services (such as payments) can resolve the market readiness issue to some extent and act as a pre-cursor to the introduction of 2nd generation products. The ecosystem created by the former can be a key enabler for deployment and scaling up of the latter. Successful mobile payment deployments can attract natural allies (financial institutions) that can then experiment with new delivery models and products on existing networks.
Overall, for any new mobile microfinance undertaking, the challenges and potential solutions discussed in this paper can be of great relevance. Ultimately, all stakeholders, including MFIs/Banks, MNOs, distributors and regulators, need to come together to test and build a model that can address these challenges effectively. Partners must agree on a long-term vision, strategy and a profit model that is sustainable for both the MFI/Bank and the MNO, carefully selecting the mix and sequence of mobile banking products to be launched. Equally important are an adequate offer design, a simplified customer experience, the implementation of a performance management system that focuses on both activations and usage, a marketing budget allocation that uses low-cost viral marketing tools to educate consumers, and a data-driven risk management system. With all these ingredients in place, success would ultimately be driven by the active effort of stakeholders in diagnosing and overcoming business model challenges according to specific circumstances – in various markets, in assorted regulatory environments and with different partners.

[36] Physically link one carrier's network with another to allow customers to transact for multiple services through the same provider.

Founded in 1998, PlaNet Finance Group is one of the world's leading microfinance groups which aim at fighting poverty through the development of inclusive finance. PlaNet Finance Group is active in 80 countries, working continuously to promote the growth and development of microfinance.

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