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Partnerships in Mobile Financial Services: Factors for Success

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Contents

ACRONYMS

ANM	Agent Network Manager
ARPU	Average Revenue Per User
ATM	Automated Teller Machine
B2B	Business-to-Business
MFS	Mobile Financial Services
MNO	Mobile Network Operator
NPL	Non-Performing Loan
OTC	Over The Counter
P2P	Person-to-Person
POS	Point-of-Sale
PSP	Payment Service Provider
SMS	Short Message Service
STK	SIM Toolkit
USSD	Unstructured Supplementary Services Data

Executive summary

Mobile financial services have attracted significant attention in recent years as a potential means of accelerating access to financial services for the poor. Safaricom's M-Pesa operation in Kenya demonstrated that payments services - and more recently banking services through the M-Shwari partnership with Commercial Bank of Africa - can be extended to the mass market in a cost-effective and profitable manner.

Many new implementations have sprung up since M-Pesa's launch and regulators have responded by trying to shape the landscape for financial inclusion in their markets. As a result of regulatory changes in particular, most mobile financial services (MFS) implementations today can be characterized as partnerships. Regardless of whether partnerships are driven by economic or regulatory necessity, they have become an important feature of MFS delivery in many markets. The purpose of this paper is to explore the experience with partnership models in four cases, and to extract lessons learned for the broader MFS industry.

Partnerships are an important element of MFS implementations, but can vary considerably in their intent and construction. Partnerships succeed or fail depending on alignment around three high-level concepts, which together provide a useful framework for understanding what makes partnerships work. The first is that there are a variety of competitive forces that create the impetus for any MFS implementation. Understanding the competitive forces that create the incentives to launch an MFS implementation is a starting point for understanding the commercial motivations behind the initiative, the core business model, the players, and any partnerships they might create to achieve their business objectives. The second concept is that there are at least four core businesses that can and typically must generate revenue in the supply chain: the payment service business, banking, telecommunications and the agent network. The third concept is that partnership agreements must distribute revenues to ensure that the implementation sustains all companies in the supply chain. This study examines four MFS partnerships using this framework.

Key findings

- An array of factors appears to undermine the effectiveness of MFS partnerships. The deficiencies typically manifest in some combination of two forms: one or more of the partners is not playing a role that is key to their success, and/or one or more of the partners is playing a role they are ill-equipped or unmotivated to play. In some cases, the presence of what appear to be suboptimal arrangements may simply be related to the early stage of the industry and the inevitable learning curve of first movers. The rapid evolution of the MFS industry is likely another force. The case study implementations demonstrate that markets, technology and business models can evolve rapidly and significantly in this sector in relatively short periods of time. Partnership arrangements that appear ideal at the start may become problematic as the business changes.
- To be successful, MFS partnerships must enable the partners to generate value for their respective companies. Some part of that value will come from the MFS business itself, and this will be a function of how efficiently the partners can play their respective roles to generate value for customers with the MFS channel. Additional value will accrue to the partners' core businesses. For example, banks may benefit from deposit mobilization, cost savings, and product line growth; mobile network operators (MNOs) may benefit from an increase in airtime sales, reduced distribution costs and client retention; and payment service providers (PSPs) and agent network managers (ANMs) may derive benefits from new customers in their networks and growth in transactional volumes. The division of revenue and cost between partners, as well as the timing of accrual of value to the core business of each partner, plays an important role in the evolution of the implementation. Many implementations have taken a short-term view that focuses on the value generated by the implementation itself, rather than a longer-term view that also encompasses benefits generated for the partners' core businesses, which may require a more patient strategy.
- Partnership roles in an MFS implementation must be aligned with competitive advantage and motivation. The motivation and ability of companies to play their roles are largely a function of the competitive dynamics in the banking, mobile communication, payment services and agent-based distribution industries. In any given market, companies in these industries will have relative strengths and economic motivation to operate different parts of an MFS supply chain. Partnerships can add value where competencies and business models are complementary; but partnerships may not be possible where companies have competing interests to control some part of the supply chain or some service component. The challenge can begin with the fundamental question of which customers to acquire. Banks, MNOs, PSPs and ANMs may have different views on which MFS customers are most likely to benefit the respective core businesses.
- Finally, regulatory restrictions are the most consistent cause for suboptimal partnership arrangements in the four case studies. In some markets, non-bank players will have more motivation and competitive advantage than banks, and bank-based regulation can deny these companies from leading an MFS implementation. In other markets, banks with a mass retail ambition may have strong motivation to lead an MFS implementation, but the absence of appropriate agent banking regulations may place them at a disadvantage. To support financial inclusion, leveling the playing field for different types of institutions in terms of key factors like issuing e-money, identifying and using agents and accessing communication channels should be a priority for regulators.

Introduction

Mobile financial services implementations are structurally complex, typically requiring expertise in banking, telecommunications, technology, marketing and distribution. Rarely will one company have the core competence to perform all of these functions efficiently, although it is not uncommon to see one player fulfilling multiple roles. In addition, banks are often required by regulation to play certain roles, and mobile network operators must provide communications services.

As a result, MFS implementations typically involve some combination of financial institutions, mobile network operators, agent networks managers and payment service providers.[1] These different companies enter into business relationships to link all of the components into a seamless service delivery channel.

This paper provides an examination of partnerships, a critical aspect of MFS implementations that is particularly difficult to get right. Companies that are very successful in their respective banking, communications, and payment services businesses agree on suboptimal partnership arrangements often enough to merit an investigation of how and why this happens. This paper explores these relationships on the assumption that getting them right is key to the success of any MFS implementation. More specifically, this paper focuses on business relationships in which companies *partner* to create the core business and deliver the customer value proposition in an MFS implementation. This implies a distinction from a mere contractual relationship with a service provider: partners share risk or depend on mutual performance of defined roles for the success of the implementation.

The research for this paper is based largely on a review of four emerging MFS implementations led by different types of institutions, each with unique partnership arrangements with other companies that operate parts of the channel: Equity Bank in Kenya, MTN in Ghana, WING in Cambodia, and Easypaisa in Pakistan. We explored various aspects of these implementations to extract lessons about how partnerships position the participating companies to jointly deliver an attractive customer value proposition while at the same time generating value, and distributing that value among themselves. While the findings are not easily distilled into a checklist for successful partnerships, this examination of four case studies provides some useful reference points for building productive partnerships in MFS implementations.

This paper is organized as follows:

- Section 1 briefly presents the structure of MFS implementations and in particular the four key roles which must be fulfilled.
- Section 2 describes the case study implementations and the partnership arrangements between the key actors.
- Section 3 describes the importance of aligning competitive forces, economic motivation and partner roles.
- Section 4 presents key lessons related to the four underlying businesses of an MFS implementation, distinguishing between the direct and indirect revenue that can accrue to the core businesses of the partner organizations. It also presents key lessons related to the distribution of this revenue between partners.

[1] In this paper, cash agent networks are a core feature of mobile financial service implementations, which distinguishes them from mobile channels that simply provide mobile phone based access to bank accounts in an additive rather than transformational manner.

1. The structure of MFS implementations: four key roles

MFS implementations are structurally complex. They typically require safe storage of funds, a reliable and widely available communication channel, effective marketing and delivery of payments, and the ability to put money in and take money out of the system through a widely distributed agent network. Partnerships are what hold the core pieces together.

To understand this function, it is useful to characterize the economic structure of MFS implementations, and in particular the four key roles that providers must partner to deliver.

Companies have many options for how to distribute the different roles in an MFS implementation, how to contract with each other to coordinate these roles, and how to share revenue. Companies may play any combination of roles, but at least four core functions are typically present in any implementation (see list on the right).

Functions in the supply chain should not be confused with partners in the implementation. Individual partners can fulfill multiple functions: for example, an MNO can act as the payment services provider, the agent network manager and the communications channel. A bank can be the PSP, the ANM and the float holder. Or a third party can be the PSP and ANM, leaving the bank and the MNO to fulfill only their core functions in communications and banking. In all cases, a bank must play the role of holding the float account and the MNO must provide the communications channel. Other than this, various permutations are possible. The important point is that each of these roles needs to be filled to ensure the functioning of the supply chain.

- **Delivering the payments service**

  This is the company that brands and sells the payments service to the public. It may be a bank, a mobile network operator, or a third-party payment service provider.

- **Safely storing funds**

  The individual accounts may be in a bank or an e-wallet platform, but ultimately the funds are stored in a bank.[2] A bank or banks may also provide banking services through the channel. Banks will also typically settle any transactions that occur with accounts outside of the service network.

- **Providing a secure, cost-effective and widely available communication channel**

  Real time transactions conducted at agents or on customer phones will pass across communication channels (e.g. USSD, SMS or data) provided by MNOs. And MNO airtime may be sold across the channel.

- **Facilitating getting cash-in and cash-out of the system**

  This often includes an ANM that manages, and in some cases contracts, the agents that provide cash and over-the-counter (OTC) transaction services to customers.

[2] In each of the case studies presented in this paper, the funds are held by a risk sharing partner. However, under certain regulatory environments this role can also be contracted out to a bank (as in the case of M-Pesa in Kenya). For a detailed discussion on regulation of non-bank e-money issuers see "Non-bank E-Money Issuers: Regulatory Approaches to Protecting Customer Funds", CGAP, 2010. Available at: *http://www.cgap.org/sites/default/files/CGAP-Focus-Note-Nonbank-E-Money-Issuers-Regulatory-Approaches-to-Protecting-Customer-Funds-Jul-2010.pdf*

2. The case study implementations

Equity Bank Kenya: when banks and MNOs compete

Since 2006, Equity Bank ("Equity") has launched multiple mobile channels that involve bilateral partnership agreements with all but one of the MNOs in Kenya. The mobile and agent channels are the latest component in Equity's very successful business model as a mass market financial service provider. With 7.1 million customers (June 2012), Equity is the largest bank in Kenya (measured by number of deposit accounts), with growing operations in the region. Equity's network of 165 branches has provided the basic infrastructure for Equity's reach into the previously unbanked and underbanked population. As early as 2003, Equity began developing technology-assisted channels to expand its reach beyond branches. The rapid expansion of the ATM network in 2004 gave Equity a first mover advantage in geographic areas that had been largely ignored by other retail banks. In late 2006 Equity also began developing mobile phone channels to further extend service delivery beyond the branch and ATM network.

The anchor of Equity's mobile channel strategy is the bank's own Eazzy247 service. Equity launched the service in 2007 to provide bank clients with a USSD-based mobile application for transactional services linked to their bank accounts, around the same time that Safaricom launched M-Pesa. Crucially, in 2007 banking regulations did not allow banks to operate through third party agents. In contrast, the informal permission that the Kenyan Central Bank granted Safaricom did allow for agents and Safaricom quickly created an impressive M-Pesa agent network. The take-off of M-Pesa demonstrated just how critical the agent network is for creating customer value with a mobile channel. So in 2010, Equity entered into partnerships with three mobile operators in Kenya in part to access the one part of an MFS channel that Equity could not create on its own: the agent network.

Between May and August of 2010, Equity formed partnerships with Safaricom, Orange and yuMobile to create parallel MFS channels. Equity partnered with Safaricom to create M-Kesho, which is a unique Equity bank account that is linked to a Safaricom M-Pesa e-wallet. Equity also partnered with Orange to create Orange Money, an Equity bank account linked to an Orange Money application which is marketed by Orange. Finally, Equity partnered with yuMobile to create yuCash, an exclusive e-wallet account for yuMobile customers.

These partnerships have not evolved into robust MFS implementations. For Equity and M-Pesa, the M-Kesho product was a bridge between their respective core businesses. The two companies struggled to define the partnership in a way that satisfied their respective business interests, largely because they perceived each other as competitors in too many parts of the business. Both companies have focused their efforts on their respective channels and neither company has promoted the M-Kesho product after the initial efforts at launch. In contrast, Equity and the other MNOs speak positively about the contractual aspects of their partnership arrangements. But these implementations have languished because the MNOs are small relative to Safaricom and they have not made progress against M-Pesa's dominant role in the market.

Equity's options changed in 2011 when the Kenyan Central Bank issued the agent banking guidelines. This enabled banks to contract with agents to provide cash point services. Equity had believed for some time that it needed an agent network to fully leverage its mobile channel and opted to build that network in-house rather than rely on the agent networks of others. As of June 2012, 1.78 million Equity customers are subscribed to Eazzy247 and 5,004 agents comprise the agent network. Equity contracts with all mobile operators so that clients can access Eazzy247 on any network. As of June 2012, Equity customers were conducting 25% of all bank transactions at the agents on the mobile channel platform.[3] In addition to portfolio and savings growth, the mobile/agent channel has also generated significant cost savings for Equity, given the lower cost of the channel relative to other bank transaction channels.

The key point is that, in some cases, providers might be better off going it alone, where there is appetite and ability to do so. Despite trying a range of partnerships, Equity's success has ultimately come without partnerships, relying instead on purely contractual arrangements in agent network management and access to the MNOs' USSD channels.

[3] Interestingly, Equity serves every 100,000 customers with 2.32 branches, which is far lower than the average for the Kenyan banking sector at 4.4 branches per 100,000. This suggests that Equity's alternative channels are increasing the efficiency of the bank's infrastructure.
http://data.worldbank.org/indicator/FB.CBK.BRCH.P5

WING Cambodia: when the core business evolves

WING Cambodia Limited was formed in 2008 as a 100% fully owned subsidiary of Australia & New Zealand Banking Corporation Limited (ANZ), which had entered Cambodia in 2004 in partnership with the Royal Group of Cambodia, a local business conglomerate. The local bank, known as ANZ Royal, focused primarily on large corporate clients. ANZ launched WING in 2008 as a third-party payment processor, with a strategy to attract more corporate clients by offering value-added payroll services for employees of corporations with large numbers of workers.

WING consists of a mobile e-wallet platform and a network of over 950 proprietary agents. Agents operate mobile phones or POS terminals that are linked into the WING platform. Customers have the option of signing up for a WING e-wallet account and accessing the USSD-driven transaction application on their mobile phones, or conducting OTC[4] transactions at the agents without having a WING account. WING's services include cash in/out at agents, domestic P2P transfer, bill pay, mobile airtime top-up, ATM access, B2B services, retail payments, online payments and payroll distribution. Transaction volumes are concentrated in domestic P2P transfers and airtime purchases.

WING is a service provider and individual customer accounts are held on the WING platform. The global float is held by ANZ Royal, and is settled between WING and ANZ Royal, usually three times per day. The WING platform is interconnected with ANZ Royal's network to enable WING customers use of the WING ATM card at any one of over 115 ANZ Royal ATMs in Cambodia. As of July 2013, WING was processing $88 million per month in domestic remittances transactions alone, and reports that it is now profitable.

The National Bank of Cambodia gave permission for WING to operate on the condition that ANZ Royal assumed ultimate responsibility for customer accounts in case of a WING failure. The resulting relationship between ANZ Royal and WING was aligned with WING's original business model as a value-added service to the bank's corporate customers. ANZ Royal wanted to build a low-value payroll service to attract large garment factories as corporate customers, and WING was developed for that purpose. However, over time WING grew in directions that moved it away from the core business of the partner bank, as WING shifted from originating low cost accounts to promoting agent assisted OTC transactions for remittances and payments. This put pressure on both partners as WING acquired a growing customer base that was not directly relevant to ANZ Royal's corporate focus, and ANZ Royal became cautious about the potential operational risks in the OTC services. This situation cannot resolve completely under current regulation, which requires a bank to assume legal responsibility for a channel that is creating value for the MNO and money transfer industries.

ANZ recently sold WING to Interlogistics Ltd, a Singapore-based company that also owns Refresh Mobile (Cambodia), which boasts a network of 8,500 POS machines and integration with all mobile operators. ANZ Royal remains the sponsoring bank. Refresh Mobile and WING have now combined their businesses, branded as WING, to form the largest payment aggregator in the market, allowing agent-based top-up for every mobile operator in the market and leverage of their respective agent networks.

One of the key takeaways from WING is the importance of aligning objectives and expectations upfront (including the target market). WING also highlights the importance of allowing the partnership to evolve over time, as the MFS implementation adapts to the needs of the market.

4 "Over-the-counter" (OTC) transactions refer to transactions that do not require the customer to have an e-wallet or bank account. For example, a customer might pay a bill by simply giving the agent cash.

Easypaisa in Pakistan: the long-term view

In 2008, the State Bank of Pakistan issued regulations that clearly positioned banks (including microfinance banks) as the responsible party for MFS implementations. However, the MNOs had a competitive advantage embedded in their communication channels and vast distribution networks and they were motivated by competition pressures to develop additional revenue streams. Consequently, to be able to enter the MFS space, four MNOs purchased microfinance institutions, either fully or partially; another MNO entered into an exclusive partnership with a mid-sized bank.

Telenor was the first to move, purchasing a 51% stake in Tameer Microfinance Bank (which obtained a branchless banking license) and launching the jointly operated Easypaisa service in October 2009. The shareholding relationship has facilitated a revenue sharing agreement with long-term objectives and a management structure that integrates both organizations, making it more an acquisition than a traditional partnership. However, there are a number of reasons why this implementation is relevant from a partnerships perspective. Firstly, Tameer and Telenor each have specific roles and responsibilities. As the business and these defined roles evolve, so too does the revenue split. Secondly, the regulations ultimately prevent the relationship from merely being the acquisition of a branchless banking license. That is, Tameer will remain ultimately liable to State Bank of Pakistan, and will be responsible for performing certain roles. Lastly, like other partnerships, Easypaisa has had to deal with the challenge of merging employees from two different cultures, with employees from both organizations playing critical roles.

To date, the network has 25,000 agents that are using a mobile account operated from a USSD menu linked to the e-wallet platform. Customers have the option of opening an e-wallet account using the USSD menu for remote transaction or they may elect to perform OTC transactions at agents without having to open an account. Easypaisa reports nearly 5 million unique customers per month between OTC and e-wallets, with the bulk of transaction volume concentrated in airtime purchases and OTC payments and money transfers.

The e-wallet platform is linked to a pooled account on Tameer's core banking system. Customers open individual Easypaisa accounts on the platform while a pooled account on the Tameer core banking reflects total balances held in all individual wallets. Easypaisa offers a range of services similar to WING (airtime top-up, OTC bill pay and P2P transfers, mobile transactions, etc.).

The bank-led Pakistan regulatory framework may be interpreted as relegating the most motivated sector - initially the MNOs - to a secondary role in MFS implementations. However, by allowing MNOs to take majority shareholder positions in microfinance banks, the regulations have created an avenue for MNOs to invest and maintain sufficient influence over the implementation.[5] As a microfinance bank, Tameer is also motivated to exploit the partnership to expand its core business. However, Tameer has approached the integration cautiously. When Tameer began operating as a microfinance bank it experienced high non-performing loans (NPLs). Retaining close relationships with customers was part of the solution used to reduce NPLs from over 20% to approximately 0.5%. Tameer has plans to pilot the use of Easypaisa to facilitate loan repayments, loan disbursements and savings mobilization from its customers, but will move slowly to ensure that the quality of the loan portfolio is not compromised.[6] Ultimately Tameer also plans to leverage this system to target the vast majority of Pakistanis that are not currently banked.

In the Tameer/Telenor partnership, the acquisition united two mass market service companies who both stand to benefit from the MFS implementation. Unlike the WING case, the lead investor in the business, Telenor, had strategic and economic reasons for being committed to delivering MFS to the mass market. But the ability of each partner to address the mass market was uneven. Telenor had the financial muscle and distribution capability to reach large numbers of clients that Tameer was still too small to reach, and Tameer had the regulatory advantage of its banking license. Given the circumstances, the acquisition made perfect sense. How this plays out over time in the core businesses of each of the partners still remains to be seen, but what is clear is that the ownership dynamic creates a longer term perspective, given that Telenor will ultimately share in revenue that accrues to Tameer. It also reduces some of the misalignment of incentives that appeared in the other cases by closely aligning the interests of the two partners.

5 It is also important to note that the level of investment required is significantly lower than would be the case if MNOs were forced to invest in full scale commercial banks.

6 "MFIs and mobile banking: blurring the lines?", CGAP, forthcoming 2013.

MTN Ghana: when the leader is forced to follow

MTN Mobile Money was launched in Ghana in July 2009 as a partnership between MTN, an MNO, and nine commercial banks.[7] The service is branded exclusively under the MTN banner, with no real visibility for the partner banks.

The MTN implementation has around 4,800 agents[8] and an e-wallet platform primarily accessed via cell phones through a SIM Toolkit (STK) application.[9] It also offers POS and internet channels, though these are relatively more recent and currently being expanded. There is presently no card channel. Products offered include P2P money transfer, bill payment, airtime top-up, balance inquiry and mini statement. Cash out is currently only done at agents, but ATM cash out functionality is being developed in partnership with Fidelity and Ecobank. At the end of 2012, MTN reported processing close to $30 million per month.

Regulations have created complex challenges in the Ghanaian market.[10] MTN aspired to first mover status in response to competitive pressure in the mobile communications sector, while banks had not shown an interest in pursuing mass market customers. However, the Bank of Ghana issued regulations that permitted only licensed financial institutions to launch MFS, holding them responsible for agent network management, customer acquisition and individual account management. MNOs are prohibited from filling those functions directly and thus effectively from playing a lead role. MTN initiated its first discussions with a single bank that at least partly shared MTN's interest in reaching mass market customers. However, an amendment to the regulations was issued mandating a minimum of three banks in any branchless banking partnership.

The regulation and its addendum were intended to promote a "many-to-many" interoperable system, which would allow for seamless transactional flows between banks and MNOs offering mobile financial services. In practice, the regulations deprive not just MNOs but also banks of exercising a robust leadership role, requiring banks to assume legal responsibility for the key roles in the implementation, but undermining the banks' commercial incentives to play those roles by creating a free-rider problem, as investment by any one bank in developing MFS would automatically benefit its competitors.[11] And indeed the banks have, with few exceptions, been unwilling to play an active part in the key roles they are assigned by the regulation. Nor have they been willing to invest significantly in product development, sales or marketing, since one bank's investment would generate benefits for all competing banks. For MTN Mobile Money, this has slowed the deployment and forced MTN to assume de facto responsibility for most functions in the supply chain and invest significant resources into developing an agent and customer base that it legally does not own. Coordination of efforts across multiple unmotivated partners has also proven to be a challenge, resolved only through strong leadership on the part of MTN.

The main takeaway is that regulations should ensure that the most motivated players are enabled to compete on a level playing field, with regulations proportionate to the risk of the products/services being offered. Regulators must also be careful not to impede incentives of motivated stakeholders to invest and innovate, for example, by prematurely forcing collaboration.

7 The regulations required that MTN partnered with at least three banks. The nine banks were CAL Bank, Ecobank, Fidelity Bank, GT Bank, Intercontinental Bank, Merchant Bank, Stanbic, UBA and Zenith Bank. Since then, MTN has added the Agricultural Development Bank as the tenth partner bank.

8 Note: MTN does not use the word agent but refers to its agents as merchants.

9 STK "allows for the service provider or bank to house the consumer's mobile banking menu within the SIM card" (FinMark Trust, "Mobile Banking Technology Options", 2007), and can provide for an improved customer experience.

10 See e.g. *http://www.cgap.org/blog/unintentional-consequences-branchless-banking-ghana*

11 Many-to-many means that partner banks will be able to benefit from the investment of any one bank (for example in a new channel or product).

3. Aligning competitive forces, economic motivation and roles

The starting point for understanding the economic motivations of the companies engaged in most MFS implementations is an understanding of the competitive forces in the banking, MNO, payment services, and agent-based distribution sectors. MFS channels create value by serving mass market customers and therefore the motivation of the players is driven largely by how much value they perceive that mass market customers can add in their respective industries.

The case study implementations demonstrate that the most compelling business case may emerge from any of these sectors, and that the factors that give one sector more appetite than the others will always be market specific. The case studies also reveal that the motivation can shift as an MFS implementation evolves.

Most MNOs are successful precisely because they have developed a service with broad appeal to the mass market. Most MNO sectors have been extremely competitive, characterized by client churn and falling revenues from traditional voice services. Consequently, MNOs have spearheaded many of the first generation MFS implementations as value-added services with the aspiration to distinguish their brand, lower distribution costs and add revenue streams.[12]

Banks may also have compelling motivation to invest in an MFS channel. In most banking sectors, the leading banks have established business models anchored in corporate and high net worth individual services provided through the branch network. These banks may add mobile channels as an additional convenience to existing customers and may be genuinely interested in intermediating the funds mobilized through an MFS implementation, but few have to date been interested in actually reaching the mass market with banking services. This represents an opportunity for aspiring mass-market banks, young banks looking for a niche, and microfinance institutions with limited branch infrastructure, to exploit an MFS channel to expand their mass-market business at relatively low cost. As noted previously, Equity grew to prominence in Kenya as a mass market bank and the addition of the agent network to its own Eazzy247 mobile channel in 2010 was a cost-effective move that was consistent with Equity's long history of developing technology assisted channels. Equity had long ago outpaced other banks in the Kenyan mass market. The compelling competition in 2010 came from Safaricom's M-Pesa service. Mass market customers showed their considerable appetite for mobile payment services with M-Pesa, and Equity responded by positioning itself to compete in this new and obviously important dimension of the financial service sector.

The WING case demonstrates how economic incentives can shift in response to market realities, revealing an underlying misalignment in the original partnership arrangement, which grows as the implementation evolves. Early in its life, WING had to adapt rapidly to manage several external challenges, which constrained its ability to provide payroll services to ANZ's corporate customers. As a consequence, WING evolved over time into a different business model which ultimately had limited relevance to ANZ Royal's core business.

12 This describes the market conditions that MTN faced in Ghana in 2009. At the time, MTN had 51% market share, substantially more than the closest competitor Tigo with 23%. Since that time, competition has intensified and there are now six operators in the market, with MTN dropping to a 46% market share. Tigo and Airtel have also launched mobile money services and at least one other MNO is planning to launch mobile money services in 2013. In contrast, the competition for mass market customers is significantly lower in the Ghanaian banking sector. The entire sector serves only 34% of the population (compared to 85% of the population using mobile phones) and established banks have anchored their business model in corporate and higher income individuals. As a result, MTN and other MNOs have been eager to distinguish themselves through value-added financial services but only a few banks have shown significant interest in delivering bank products to the target market.

Key lessons

Market forces within the different industries will largely determine what kind of company will be most motivated and able to drive an MFS implementation. Competitive dynamics between the industries will determine whether companies from different sectors realize a net gain from an MFS partnership.

- **Partnerships thrive when the competitive advantage of the partners is clearly delineated, and the best placed partner is able to drive the initiative.**
  The Tameer-Telenor partnership is an example. Telenor has a clear advantage with regard to customer base, agent distribution network, communication network, marketing and financial strength. For its part, Tameer brings its microfinance service license, banking, risk management and compliance expertise to the partnership. While Tameer is legally responsible for the business, Telenor drives most of the customer facing aspects of business.

- **Where banks and MNOs perceive each other as competitors, any partnerships between the two are likely to be difficult.**
  The partners will be understandably wary of each other's long-term aspirations and they will likely not support and may even undermine any strategies that associate customer value with the other partner's brand. This is clearly the case with Safaricom and Equity in Kenya, where both are competing for mass market customers with a large appetite for mobile financial services.

It is equally important to understand the influence of regulation. The case implementations provide several examples of regulations that force a suboptimal distribution of roles in MFS implementations:

- **Regulation can prohibit the most motivated promoters from exercising adequate control over their initiative.**
  This can occur easily in markets where MNOs or PSPs are eager to promote an MFS implementation under their own brand, but regulations require banks to assume legal responsibility of the individual customer accounts or services. This is clearly the case in Ghana, where MTN has been the driving promoter but cannot own the e-wallet accounts or the agent network.

- **The lead position may need to shift as the business model evolves.**
  Most successful MFS implementations have evolved significantly over time. The WING case demonstrates that this evolution can change the core business model significantly enough that the relative interest of the partners may shift. Interests can be renegotiated, purchased or sold. But regulations that confine ownership to banks may strain partnership arrangements when the core business model is no longer compelling for banks.

4. The core revenue sources in an MFS supply chain and the distribution of revenue

The ultimate test of an MFS partnership is the revenue that accrues to the partners. An MFS supply chain links at least four distinct core functions that can generate benefits from an MFS implementation. Partners' success is a function of how well the MFS implementation enables the companies in the supply chain to capture core sources of revenue. The following subsections explore how partnership arrangements enable companies in the supply chain to leverage all of the possible revenue sources.

4.1 Payment services[13]

This is the most visible part of an MFS implementation. It encompasses the brand, the channel infrastructure and all of the revenue that results from the transactions conducted in the channel. These are typically cash-in/cash-out and payment transactions (e.g. remittances, bill pay, payroll services, etc). Revenue is generated primarily from transaction fees and commissions paid by companies that use the channel to sell services or distribute payments.

Key lessons

- **The relative importance of this part of the business can vary depending on the core business of the company that is operating the payment service channel.**
  For an independent PSP, the payment service business is primary to the business model, as in the case of WING. For either a bank or an MNO-led implementation, this may not be and is probably most often not the case. This is because banks and MNOs can typically leverage the MFS channel to generate more revenues in their core businesses than they will net from the payment service.
- **It is important that the partner that drives the payment service business has sufficient control to maximize its benefit.**
  This is critical for a business model like WING, in which the company depends exclusively on channel related revenue. However, it may be equally important for a bank that aspires to leverage the MFS channel in service of the bank's core business. For Equity, for example, the MFS channel simply allows the bank to reach more customers with an already very profitable array of banking services, but at less cost. The bank derives benefits by increasing banking service revenues and reducing costs; by comparison, any service revenue from channel transactions is barely relevant, at least in the short and medium term. The bank may decide to price the payment services accordingly. The WING case demonstrates that PSPs may struggle to optimize the payment service business when it is legally owned by a bank. WING did not have control to fully develop the payment service business and ANZ Royal found itself legally responsible for a separate company that no longer supported ANZ Royal's core business.
- **The payment service business can also be undermined if the partnership arrangement or regulations do not allow the implementation to generate revenue from customer account balances.**
  This is typically due to regulations but some partners do have discretion in how this revenue is distributed. Some regulators explicitly prohibit e-money implementations from earning any interest on the float balance. This is true of the trust vehicle used to sequester M-Pesa's float balance in Kenya. It is also true in Ghana. Even though MTN brands and operates the service, and holds individual customer accounts on their e-wallet platform, the regulator prohibits MTN from earning interest on the global float deposit in banks on the grounds that the funds do not legally belong to MTN but to customers.[14]

[13] The payment service business could be operated by a bank, MNO or third party PSP. It is important to note that this section is referring to the business line (costs and revenues) rather than the provider of the service.

[14] Unfortunately the regulations also lack provisions that enable non-bank MFS providers to pay customers interest on the balances in their wallet. While some MNOs would like to pay interest, they are wary of doing so for fear of drawing the attention of the regulator by engaging in what might be considered a banking activity.

4.2 Banking

Banks can generate core business revenues from MFS implementations in two ways. The first way is to intermediate the mobile account balances by lending the funds to traditional bank customers. The second is by providing banking services directly through the MFS channel. A bank may have different requirements of a partnership, depending on the bank's relative interest in these two revenue sources.

Key lessons

- **Banks must be positioned to intermediate the account balances of an MFS implementation.**
  Float intermediation is typically a primary motivation for banks to participate in MFS implementations. Normally, banks can intermediate the float balance whether they operate a mobile banking channel and accumulate account balances directly in the bank, or they intermediate the global float of an e-money provider. However, the Ghana case illustrates that regulations can undermine this core benefit for banks. The large number of banks in the MTN implementation potentially dilutes any one bank's income from intermediation of account balances, and allows MTN to determine how the float will be distributed. More importantly, the banks are effectively replaceable at the MNOs' discretion (with 30 days' notice) and thus stand to lose any investments they do make in the business should the MNO decide to exclude them from the partnership. While this type of 30 day notice clause is fine for a contractual service provider relationship, it is clearly problematic where the bank is expected to be a partner investing in the business.

- **Banks may require significant control of the agent channel to deliver banking services to clients.**
  A motivated bank will expend considerable effort and investment to develop, promote and sell banking products through the channel, but this will be undermined if the bank does not have visibility in the client-facing part of the value chain. Accordingly, the partnership arrangement must give the bank sufficient control, visibility, and revenue share to warrant the investment. Moreover, banks will typically want to integrate services across all of their delivery channels. The Equity case illustrates the rationale of a bank that places primary interest on using the relatively low cost MFS channels to expand its core business. For full control of the channel and ownership of the customers, such a bank may well opt out of partnership arrangements.

  The Ghanaian case demonstrates the problems that banks may have with too little control of the channel.[15] The Ghanaian banks have little visibility in the channel, which is branded under MTN. The regulations in fact explicitly forbid agents from using bank related terminology in branding as well as from cross-selling or marketing any of the participating banks core products and services. The banks also face the difficulty of distinguishing themselves by products, because any other bank can copy a product and supply it through the same channel. Finally, client accounts reside on the MNO platform; the banks only hold the float balance of clients associated with the bank. Banks cannot see individual customer information unless it is provided by the MNO. This discourages any significant investment by the banks.

- **Banks (and PSPs) face a particular challenge in markets where their MFS implementation competes against other MFS implementations that are owned by the MNOs that provide the communication channels.**
  Non-MNO MFS companies face a substantially uneven playing field in markets where regulators allow MNOs to house MFS implementations within the MNO and where competition regulation does not prohibit MNOs from manipulating service levels and pricing of communication channels to protect their MFS business. This creates a potential conflict of interest for MNOs and source of frustration for non-MNO MFS providers, such as Equity. This problem will become more visible if regulators allow MNOs to become MFS providers without introducing appropriate rules for "fair channel access".

[15] It is true that most of the partner banks in Ghana are not explicitly wanting to drive the business or invest more. However, this does explain the challenge that a bank like Fidelity Bank, which is actively targeting the mass market, faces.

4.3 Telecommunications

Like banks, MNOs also have multiple ways to generate revenues from association with an MFS implementation. MNOs stand to generate revenues directly from the transactions that are conducted on their communication platform, and generate net benefits in the MNO's core business.

Key lessons

- **For many MNOs, the primary motivation for participating in an MFS implementation is the value added to the core communication business.**
  MFS channels have become efficient ways of distributing airtime, reducing the overall commissions paid by the MNO. In some implementations, the average revenue per user (ARPU) has increased as MFS users increase airtime consumption because the purchase becomes more convenient. Finally, where MFS implementations function uniquely on a specific mobile network, the MNO may also benefit from a reduction in churn as MFS customers are less likely to abandon the network they use to access the services. These revenue opportunities are becoming increasingly important to MNOs as airtime revenues decline. The Pakistan market illustrates a trend that is visible in most markets in the world: in six years the ARPU dropped from USD9.00 to USD2.50. Therefore, forward looking MNOs are eager to add services to their network that can generate additional revenue streams and maintain loyal customers.
- **Where MNOs play no other role in the implementation, they tend to maximize their revenues from charging communication fees.**
  In some markets, the fees have been high enough to undermine the economics of the entire MFS supply chain by undermining the customer value proposition. On the other extreme, where MNOs own the MFS implementation or are able to generate other revenues, they have been able to subsidize the communication expenses.
- **MNOs may need to control much of the MFS channel to generate core business revenue.**
  Many MNOs expect to generate most of the benefit from an MFS implementation from the core MNO business revenue streams, at least in the near to medium term. However, banks and PSPs tend to want to make their channel available on multiple mobile networks, and this can undermine the MNOs' ability to generate core revenues. Moreover, bank and PSP-led implementations will typically charge the MNOs commissions for airtime sales. Therefore, MNOs may have significantly less to gain from a bank or PSP-led MFS implementation.

  The Telenor/Tameer partnership seems to have overcome some of these disadvantages for Telenor. Telenor controls enough parts of the supply chain (communication channel, agent network, and e-wallet platform) to be able to generate core telecom business benefits. Moreover, their ownership stake in Tameer also guarantees them a share of core banking business benefits, should these become more significant over time.

4.4 The agent network

The agent network is one of the most important components of an MFS implementation. It provides customers with convenient access to cash services, and this alone generates a large portion of the customer value proposition. This makes the agent network strategically important to an MFS implementation, in particular to the company that wants to ensure that customers associate the service with their brand. Cash agent network management is a highly specialized business that requires capacity that banks, PSPs and even most MNOs typically do not have. From this perspective, a partnership that includes a company with an agent network, or at least an ability to manage cash across existing distribution channels, would appear to be efficient and mutually beneficial. However, the strategic importance of the agent network to the MFS implementation brings other considerations to bear on this decision as "ownership" of agents has in some instances translated into control of the overall MFS offering.

Key lessons

- **MNOs typically launch MFS implementations with the aspiration to leverage their existing airtime distributors into a cash agent network.**
  Their distribution networks make MNOs attractive partners to companies that do not have agents or any experience in managing them. This is the case, for example, with Telenor. However, the logistics involved in managing cash across this network have been a challenge for many MNOs.

- **PSPs may also be motivated to build out their own agent networks, for strategic reasons.**
  WING serves as an example. WING's agent network is the foundation of its business model. The majority share of transaction volume comes from OTC transactions at the agents. From this perspective, WING is primarily an agent distribution company that uses mobile channels and a transaction platform to facilitate OTC transactions on an agent network. The eventual sale of WING to a distribution company also demonstrates that the enduring value of the company is anchored in the distribution capacity of the agent network. In short, the agent network is what enabled WING to transform the initial business concept into a viable company with long-term value.

4.5 Revenue distribution

All of the companies in an MFS supply chain have to generate net benefit from somewhere. As the MFS implementation evolves, the benefits and costs may shift disproportionately. Revenue distribution agreements are the mechanism for balancing the interests of all companies in the supply chain, and are one of the most important aspects of partnership arrangements.

Key lessons

- **Revenue sharing with agents is common practice.**
  This has been necessary to ensure that agents receive sufficient income early in the implementation to maintain their active participation. Agents are critical to the core value proposition of an MFS implementation but typically transaction volumes are not sufficient in the early phase to support an agent business. In these cases, other companies in the supply chain must push sufficient funding to the agents, and may be required to wait for a period of time before seeing benefits accrue to their own core businesses.

- **Revenue sharing agreements between MNOs and banks tend to be more complex.**
  The research revealed a range of approaches to sharing revenues in these partnerships. On one extreme, banks and MNOs have agreed to simply keep their respective core business revenues and share the payment service revenues. For example, the partnership may split all transaction-related revenue while the MNO keeps all airtime sales revenue and the bank retains all income related to float intermediation and banking services. On the other extreme are agreements in which banks and MNOs agree to share part of their respective core business revenues with the partner(s). The Tameer-Telenor relationship is an interesting variation in that it gives Telenor a share of the global benefit through its ownership in Tameer, regardless of whether benefit accrues in Telenor or in Tameer. This allows for some flexibility in the revenue sharing negotiation and agreement. The two companies share revenues in proportion to expenses incurred.

- **Given that most MFS implementations evolve significantly as they mature, the most important observation about revenue distribution is that it probably has to change over time as the revenue sources evolve.**
  It is very common for revenues to be concentrated in airtime sales and OTC transactions early in the implementation; banking services, P2P transfers and merchant fees are only likely to grow as the implementation matures. Partnership agreements will likely have to evolve to maintain alignment between partner roles and their economic motivations, and ensure that partners are well positioned to fully exploit the revenue opportunities. Tameer and Telenor provide a good example of this, with the revenue split being reviewed on a regular basis, as the offering, market and regulations evolve.

5. Final observations

The research revealed multiple ways that companies partner to create value in an MFS implementation. The case studies provide meaningful examples of enabling partnerships. However, the findings are equally revealing about conditions that can undermine partnership arrangements. In fact, one of the noteworthy findings in the background research for this paper was the limited number of successful partnerships in operation.

A second dimension to partnership requirements is that most companies will want to leverage the MFS channel to generate revenues in their core business. It is not enough to divide partner roles by their respective competitive advantage or installed capacities to implement the MFS channel; companies may have strategic reasons for controlling aspects of the MFS channel that are most important to their core business. Alignment of all of these interests is challenging and critical to the success of any MFS implementation.

Regulations are often an underlying cause of suboptimal partnership arrangements. A full examination of the regulatory regimes in the four countries exceeds the scope of this exercise, but this finding warrants a brief summary of the specific regulations that can undermine the ability of companies to define roles that make for effective MFS implementations.

- Regulations that require banks to assume legal responsibility for all MFS implementations undermine the incentive and capacity of potential non-bank promoters. In many markets, non-bank players will have more motivation and competitive advantage than banks, and bank-based regulation can deny these companies from leading an MFS implementation.
- Regulations that deny either banks or non-banks from owning and/or managing the agent network can easily deny the leading company the control it requires over the primary source of customer value in an MFS implementation. Given the importance of agents as the primary face to clients, this creates a quasi-monopolistic situation that favors one sector over another, regardless of their competitive advantage or their motivation to lead an MFS implementation.
- Prohibitions on non-banks earning interest on e-money float balance that is deposited in banks denies e-money issuers an important source of revenue. This deprives the value chain of an important source of revenue and essentially transfers value from customers to banks. If a non-bank provider does not earn float interest, then they must charge customers more.
- Regulations that force collaboration at an early stage of industry development can easily undermine the ability of individual companies to generate sufficient benefit to warrant the initial investment required in an MFS implementation.
- Where banks and MNOs compete against each other in the MFS sector, MNOs will have a significant and unfair advantage unless competition regulation ensures that all MFS implementations have equal access to communication channels, i.e. at a fair price.

In conclusion, while many players are moving in the direction of partnerships for the delivery of MFS, these partnerships can take many forms and are inherently complex and dynamic. While there is no easy checklist for a successful partnership arrangement, this paper highlights many of the hazards that have affected early partnerships – both in the commercial and regulatory arenas. What does seem clear is that, for a partnership to be successful, each partner needs to enter into it with a clear understanding of its motivation, role and expectations, particularly regarding the composition and timing of benefits likely to flow to it. A long-term view is almost certainly required, as is some degree of flexibility in managing partnership relations over time.

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The Partnership for Financial Inclusion aims to bring financial services to 5.3 million previously unbanked people in Sub-Saharan Africa by 2017, by supporting the scaling up of sustainable microfinance and the development of mobile financial services. It is a $37.4 million initiative by The MasterCard Foundation and IFC that brings together the intellectual and financial capital of the Foundation with IFC's market knowledge, expertise and client base. The partnership is also supported by donor and knowledge partners such as The Development Bank of Austria (OeEB, Oesterreichische Entwicklungsbank AG), the World Bank and CGAP. An important objective of the partnership is to contribute to the global community of practice on financial inclusion, and to share research and lessons learnt. This publication is part of a series of reports published by the program. To find out more, please visit *www.ifc.org/financialinclusionafrica*

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