



Mobile Money for the Unbanked

Mapping and Effectively Structuring Operator-Bank Relationships to
Offer Mobile Money for the Unbanked

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Foreword

We are living in an era of unprecedented change. One of the most transformational of these changes has been the influence of the mobile phone—which has become one of the most commonly used technologies on our planet.

We continue to see the ways in which people use their mobile phones grow and change. One of the most important of these has been in financial services, an area that will have a significant, positive impact on the global economy. When people access financial services applications through their mobile phones, they become members of the digital economy, opening up a new set of opportunities, particularly for the unbanked—those individuals who are completely outside of the banking system today.

For those of us in the mobile financial services ecosystem, mobile money represents both an opportunity and a responsibility. The business opportunity is clear, but with that comes a responsibility to work together as an industry to leverage each other's strengths in order to reach those currently excluded from formal financial services.

One of the critical pieces necessary to make mobile financial services work is the relationship between mobile network operators and banks. To be effective, this needs to be a win-win relationship. "Mapping and Effectively Structuring Operator-Bank Relationships to Offer Mobile Money for the Unbanked" by the GSMA shares valuable perspectives based on experiences from multiple countries on how this relationship can work effectively.

I invite you to read this interesting publication and hope you can make practical use of its lessons learned.



Tomasz Smilowicz
Global Head of Mobile Solutions
Citi, Global Transactions Services



Executive summary

In the past several years, both banks and mobile network operators have moved aggressively to offer mobile financial services to the unbanked. For banks, mobile money for the unbanked is a way to serve a vast swathe of customers who would otherwise be out of the reach of costly branch infrastructure; for operators, mobile money represents an opportunity to differentiate themselves from their rivals. To offer mobile money, banks and operators need to work together—yet negotiating agreements to do so can be contentious and time-consuming: our research suggests that early attempts to forge these agreements took banks and operators a full year, on average, to negotiate.

In this article, we introduce the idea of the “business owner”: the bank, operator, or third party that assumes the bulk of the financial risk of offering a mobile money service. The business owner contracts with other entities to undertake the activities in the mobile money value chain it chooses not to operate itself. We take a close look at these activities and evaluate which party—a bank, an operator, or a third-party—has the most relevant assets and capabilities for each task. In general, we find:

- Operators have a widely recognized and accessible mass-market brand, which most banks lack. However, banks are more experienced in educating their customers and persuading them to consume a service that, unlike airtime, they didn’t already know they need.
- Operators know how to build networks of independent retail agents and can leverage these networks to serve as cash-in/cash-out points for a mobile money service. Banks, particularly those with branches in rural areas, are ideally situated to support agent liquidity.
- Both banks and operators have experience running transactional platforms, although in practice, the platform itself is usually built by a third party.
- Given existing relationships, banks are better positioned to engage with regulatory authorities. But we discuss the significant tensions that can arise when a mobile money service with an operator as its business owner is viewed as “bank-led” by the regulator.

We also discuss how agreements can be formalized and value allocated. We point out that while operators need not work with just one bank, it is harder for banks to work with just one operator. We consider what functions are easily outsourced to another entity by the business owners and which are not. And we discuss the pros and cons of complex agreements that allow two or more parties to share business ownership of the mobile money service. Regardless of their complexity, we highlight the three hallmarks of successful agreements: clarity about roles and responsibilities, a “win-win” proposition that extends into the future, and explicit governance structures.

Three appendices are included at the end of the article. The first is a tool that operators and banks can use as a framework when looking to structure (or re-structure) their engagements. The second is a pair of case studies showcasing engagement models between banks and operators in Kenya and Pakistan. And the last is a short glossary of mobile money terminology used in this article.

Introduction

“In operator-bank partnerships, each entity has to have the trust to let the other do what they do best.”

Nadeem Hussain, CEO, Tameer Microfinance Bank¹

It is impossible for a mobile network operator to offer mobile money without a bank: at minimum, a bank must hold the deposits which back the electronic value stored in customers' and agents' wallets. Conversely, it is impossible for a bank to offer mobile money without an operator: at minimum, an operator must provide the data channel which allows customers and agents to initiate transactions using their handsets.

But between these two extremes **there is a very wide variety of ways for banks and operators to work together.** Telenor Pakistan and Tameer Microfinance Bank have together created a “virtual organization” to run their easypaisa service, finely sorting roles and responsibilities and allocating them between the partners; more typical is for a bank to handle two or three functions and the operator to take on the rest. Sometimes, these arrangements are formalized with contracts and service level agreements, with one party agreeing to offer a service or services to the other for a fee. More rarely, operators and banks may enter into a joint venture, or find some other way of sharing in the risks, and the rewards, of offering mobile money.

This diversity of options, paired with the necessity of striking some kind of deal, can make the process of negotiating contentious. In one African country, a proposed mobile money service has been stalled for more than a year while an operator and a bank have debated the nature of their relationship. This is not atypical; our research indicates that, on average, **negotiation between a bank and an operator seeking to work together on mobile money takes twelve months to complete.** Even when negotiations are concluded, it can leave one or both parties uncertain whether they've hit on the operating model that allows them to build a mobile money service most effectively, and to capture an appropriate share of the value that's created in the process. **Such uncertainties can reduce the effectiveness of banks and operators when developing and refining a service that truly meets the needs of the target market.**

To shed light on these issues, we seek to answer a few fundamental questions about the relationships between banks and operators in this article:

- What are the respective strengths that mobile operators and banks bring to mobile money?
- What are the activities that need to be performed to offer mobile money, and which party (a bank, an operator, or a third party) is best equipped to perform each?

- What are the different ways that banks and operators can engage with each other?
- How can banks and operators structure, or restructure, their agreements to reduce friction and improve the service that they offer to their customers?

We posed these questions in a series of interviews to dozens of executives at banks and operators in Africa, Asia, and Latin America. We spoke with representatives from multinationals and from companies with operations in just one market; with strategists and with line managers; with those only contemplating mobile money and with industry veterans. We are grateful to them for sharing their insights and experiences, which form the backbone of this article.²

Surveying the landscape

As of November 2010, there are 84 live mobile money deployments in low- and middle-income countries that target the unbanked.³ In each, **it is possible to identify a business owner, which we define as the entity which assumes the bulk of the financial risk of offering the service.** The business owner contracts with one or more parties to provide certain services. If successful, the business owner captures the residual profits from the venture after all other parties have been paid.⁴ In this article, we will identify the business owner of various deployments rather than characterizing them as bank-led or operator-led—since although these terms are widely used, they are vaguely and inconsistently defined.

In principle, a bank, a mobile operator, or a third party—or some combination thereof—can serve as the business owner. Today, we see the following:

- In the large majority of cases, the *mobile network operator* acts as the business owner, contracting with one or more banks to provide services such as float holding and regulatory engagement and compliance.
- In a handful of cases, a *bank or bank subsidiary* acts as the business owner, contracting with one or more mobile operators to provide services such as access to short codes and the USSD gateway.
- There are two services offered by a *partnership* between a bank and an operator in which the two parties share in the risks, and the potential profits from, mobile money: easypaisa and M-KESHO (a third, MTN Banking, is being absorbed back into Standard Bank after a number of years as a joint venture co-owned by Standard Bank and MTN in South Africa).

¹ Tameer Microfinance Bank, which is partially owned by Telenor Pakistan, offers a mobile money service called easypaisa with Telenor. For more about the Telenor-Tameer partnership, see the appendix.

² We are grateful to Rambert Namy and Alexander Boeller of Sofrecom and to Amitabh Saxena for their work researching this article, and to Chris Bold for supplying the cover photo.

³ See the Mobile Money for the Unbanked Deployment Tracker (<http://www.wirelessintelligence.com/mobile-money/unbanked/>) for a list.

⁴ Economists would call the business owner the “residual claimant”: the entity with a claim on profits after all costs have been paid and all debts have been repaid.

■ Finally, there are a handful of third parties, like Splash in Sierra Leone, that act as the business owner, contracting with both banks and mobile operators to provide services required.

In this article, we discuss a wide range of mobile money services for the unbanked, regardless of their business owner. And we include services that range from the basic (bill payments) to the sophisticated (savings, insurance, and credit).

Excluded from our analysis, however, are mobile financial services that are primarily conceived by banks as channel extensions, giving their customers, who are by definition already banked, a new way to interact with the bank, complementing existing channels such as branches and internet banking. That's not to say that such services are unimportant, for banks or mobile operators. In fact, they can be popular with users, a competitive differentiator, and profitable for banks and operators alike. But they are different enough from services that target the unbanked that we have chosen not to discuss them here. (In the next section, we discuss the key feature that distinguishes an unbanked-focused mobile money service from a "channel extension": a network of independent agents at which customers can cash in and cash out.)

Why banks and mobile network operators are interested in mobile money for the unbanked

In a 2009 study commissioned by the GSMA and the Consultative Group to Assist the Poor (CGAP), McKinsey & Co. estimated that there will be 1.7 billion unbanked customers with mobile phones by 2012 and that **up to US\$5 billion in direct revenues can be earned by serving this segment between 2009 and 2012.**⁵ Mobile operators and banks have obvious, but distinct, strategic interests in serving this market.

For banks, mobile money is a way to serve a vast swathe of customers who are otherwise out of reach. Generally speaking, the low-income segment cannot be profitably served using the traditional banking model, in which bricks-and-mortar branches are the primary point of contact between customers and the financial institution. That's because it is rarely economical to build and operate bricks-and-mortar branches, with their high fixed costs, where the poor live: even if such a branch were busy all the time, the fees the bank would have to charge their clients, relative to the size of those clients' transactions and/or deposits, to cover the branch's costs would exceed customers' willingness to pay.⁶ And this problem is exacerbated in rural areas, with low population density. In contrast, mobile money services allow users to cash in and cash out at a network of independent agents, leveraging existing infrastructure to serve customers more cheaply

than in a bricks-and-mortar branch.⁷ Moreover, customers can then move value (whether it is to pay bills, send money to a relative, or perform some other transaction) by issuing commands directly from their handset, here again leveraging existing infrastructure to further bring down the cost of serving poor customers. As such, mobile money allows banks to profit from helping to serve a market they might otherwise have to forsake.

How mobile money for the unbanked fits into a bank's broader mobile strategy

It would be unusual for a bank's only use of the mobile channel to be offering a mobile money service for the unbanked. More commonly, banks first seek to exploit the mobile channel as a new way of serving their existing customers. By allowing customers to check their balances, view transaction reports, and move money between accounts, banks offer customers a value added services and realize operational savings (when customers choose to interact with the bank by mobile vs. through more expensive channels, like telephone or a branch). They may even earn additional revenues if customers are willing to pay to use the mobile channel.

Banks who participate in the value chain of a mobile money service for the unbanked typically see that initiative as distinct from their use of the mobile channel to better serve their existing customers. Since few banks target the same customers in their core business as in the mobile money service for the unbanked, the potential for cannibalization is typically low.

For operators, mobile money does not usually represent an opportunity to serve a new market segment; instead, it allows them to cross-sell a new service to customers whom they already serve (i.e., their own subscribers) or compete for (the subscribers of other mobile network operators). Given the increasing competition in developing countries among operators for share of the mobile business, and the increased propensity of customers to churn from one operator to another in search of a lower tariff, differentiation has become a primary strategic objective. So although the revenue opportunity that mobile money presents is huge, mobile operators are increasingly focused on mobile money's potential to strengthen their relationship with mobile users, giving them a compelling reason not to churn away to a lower-priced operator.

⁵ See "Understanding the Unbanked Customer and Sizing the Mobile Money Opportunity" by Paul Leishman (http://www.gsmworld.com/documents/mmu_2009_annual_report.pdf).

⁶ This makes the achievements of "pro-poor" banks like Equity Bank (Kenya), Grameen Bank (Bangladesh), and BRI (Indonesia), which have managed to establish branches even in low-income areas despite these challenging economics, all the more impressive. See "The Economics of Branchless Banking" by Ignacio Mas (<http://mmublog.org/global/article-from-ignacio-mas-the-economics-of-branchless-banking/>).

⁷ See "Scaling Mobile Money" by Ignacio Mas and Daniel Radcliffe (forthcoming).

What are the activities that need to be performed to offer mobile money? For each, is a bank or an operator best equipped to perform it?

A basic tenet of corporate strategy is that companies should seek to perform the activities which they are uniquely well-positioned to perform—and outsource those which they aren't to firms with greater expertise. Banks and operators do this all the time in their core businesses; both, for example, routinely contract with other firms to handle their security needs. Bharti Airtel has become famous for taking this principle to its logical extreme; in the so-called “Indian model” of mobile telecommunications, Bharti outsources network infrastructure, call centres, and retail stores to other firms, allowing it to focus on understanding and meeting customer needs.

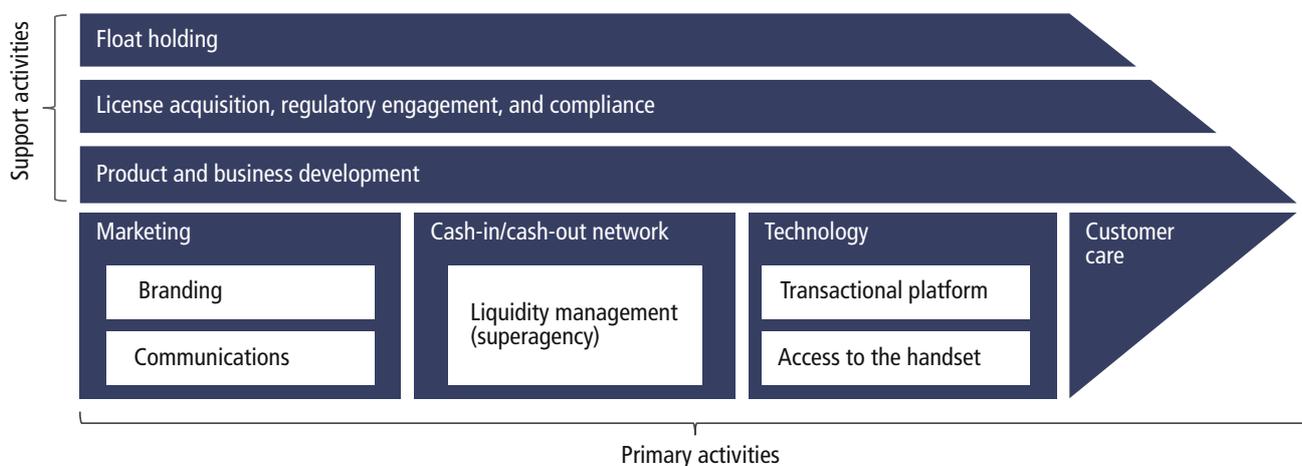
This logic offers a useful framework for thinking about how banks and operators might work together to offer mobile money. Offering mobile money, like any other product or service, requires carrying out a coordinated set of activities. These are sometimes collectively called the value chain. The diagram below, although not exhaustive, lists the important parts of the mobile money value chain.⁸ Primary activities are those which create and deliver the mobile money service to customers; support activities are required in order to carry out primary activities.

How sophisticated services fit into the mobile money value chain

Sophisticated offerings like savings, credit, and insurance can be, and increasingly are becoming, a part of the mobile money value chain. M-KESHO, which is described in the appendix, gives customers access to savings, loans, and insurance. And in other markets, sophisticated services are becoming part of the mobile money value chain in more modest ways. Banks have begun to engage with the business owners of mobile money services in order to allow their customers to move money into and out of mobile wallets from and to their bank accounts. Airtel Africa (formerly Zain), for example, makes it easy for banks to integrate securely with the Zap platform in order to offer this functionality to customers. In effect, these institutions are helping to create, and becoming part of, an enlarged mobile money value chain that offers users a broader array of services than payments alone.

Because offering such services requires the participation of appropriately regulated financial institutions, the expansion of the mobile money value chain in this way is likely to increase the number of relationships we observe between operators and financial institutions in the future.

The Mobile Money Value Chain



⁸ See Competitive Advantage: Creating and Sustaining Superior Performance by Michael Porter. Strictly speaking, Porter calls value chains that are spread across multiple companies, like those we are discussing in this paper, value systems.

Banks are uniquely well positioned to perform some of these activities; operators are to perform others; and third-parties yet others. To assess which entity is best positioned to take on these services, it is useful to review the generic strengths that banks and operators generally bring to the table. From our conversations with banks and mobile operators in the developing world, the picture below emerged.

In the following pages, we attempt to map the assets and competencies of mobile operators and banks to the segments of the mobile money value chain. Since our scope is broad—operators and banks in the developing world—the discussion below necessarily requires making some generalizations that won’t apply in every market. So at the end of this article, we offer a guide for operators and banks seeking to structure—or restructure—relationships with each other to conducting this analysis on a local level.

The assets and competencies, relevant to mobile money, of banks and mobile operators

	Banks	Mobile Network Operators
Tangible assets	<ul style="list-style-type: none"> • Full suite of financial services, including credit and savings • Deposit-taking license • Branches with trained staff, security, and deep pools of liquidity • ATMs/cash machines • Integration with broader financial system • Secure core banking platform 	<ul style="list-style-type: none"> • Large and growing customer base, a significant proportion of whom are unbanked • Pervasive airtime distribution network • Control over the SIM card on and data channel to customers’ handsets • Robust high-volume, low-value transaction processing platform
Intangible assets	<ul style="list-style-type: none"> • Reputation for stability and security • Relationship with financial regulator 	<ul style="list-style-type: none"> • High mass-market awareness • Trust of consumers as a transaction partner • Relationship with telecommunications regulator
Competencies	<ul style="list-style-type: none"> • Risk management, fraud deterrence, and regulatory compliance • Retail operations, including liquidity management • Financial product development 	<ul style="list-style-type: none"> • Building and managing a third-party distribution network • Mass market brand-building and advertising • Rapid value-added service development

Marketing

Branding

The broad level of awareness that already exists of mobile operator brands is a key asset when it comes to marketing mobile money. Equally valuable is the “accessibility” of most operator brands: high rates of mobile penetration in most of the world means that wide swathes of the low-income segment have existing relationships with one or more mobile operators. Indeed, since in the pre-paid model such relationships require the consumer to trust their mobile operator to store value that they load into their airtime balance until they use it, consumers of mobile telephony come to trust the operators they use regularly.

Banks typically have lower levels of brand awareness, since they compete for the business of a narrower range of consumers and confine their brand-building activities accordingly. Nevertheless, their brands have certain attributes that could be helpful when promoting mobile money—in some cases, a reputation for stability and security. **But these brand features can be overshadowed by associations that prove to be liabilities when marketing mobile money.** Many banks in the developing world are perceived as exclusive (“not for people like me”) by the poor; this perception is sometimes encouraged deliberately when banks cultivate an upmarket image in order to appeal to the aspirations of potential clients. Such a strategy makes obvious sense when it comes to building market share in more affluent segments, but poses complications when it comes to marketing mobile money.

Not all banks find themselves in this position; a few (like Equity Bank in Kenya, Grameen Bank in Bangladesh, and Bank BRI in Indonesia) explicitly target the low-income consumer and have developed a brand profile to match, and such institutions would be well positioned to treat mobile money as a brand extension. Nevertheless, in practice there are few bank-branded mobile money deployments that target the base of the pyramid. Even WIZZIT and WING, mobile money services offered by subsidiaries of banks (in South Africa and Cambodia, respectively), have chosen to build new brands from scratch rather than go to market under the brand of their parent banks. The only exceptions to this pattern we know of are Standard Bank Community Banking in South Africa and Zanaco’s Xapit in Zambia.

Occasionally mobile money services are co-branded; marketing materials for Vodacom M-PESA in South Africa, for example, carry the Nedbank logo. This approach is usually only adopted when required by a regulator, probably because co-branding has certain costs. First, it can be confusing to the customer; second, it exposes both brands to the fortunes of the other. On the other hand, it may enhance the offering’s credibility with customers.

Communications

Operators’ experience in building and maintaining a mass-market brand and in investing heavily in mass-market advertising situates them naturally to take on the responsibility of marketing mobile money. One of the main reasons Tameer Microfinance Bank’s shareholders (a deposit-taking financial institution in Pakistan) agreed to sell Telenor shares in the bank was Telenor’s willingness to invest far bigger sums in marketing easypaisa than Tameer would have been willing or able to do on its own and its expertise in addressing that consumer. The subset of banks that have chosen to build mass-market brands of their own might equally have the experience and muscle to market mobile money.

At the same time, the challenge of marketing mobile money is significantly different from the task of marketing operators’ core offering, airtime. Operators who take on this challenge find themselves forced to develop new kinds of communications materials (and indeed to adapt their entire marketing mix) in order to build awareness of a financial service, educate customers about it, and generate demand—objectives that differ significantly from those of a campaign to drive sales of airtime, which the target market already knows, understands, and demands. Banks, although usually targeting a narrower socio-economic band than mobile operators, are likely to have a better understanding of this kind of marketing challenge.⁹

Co-marketing is extremely rare; M-KESHO is the only example we know of. This is largely because of coordination issues: Safaricom and Equity Bank both note that it took longer to develop marketing communications because two design teams were involved, and two sets of approvals were required. (See the appendix for more about the Safaricom-Equity Bank partnership that led to M-KESHO.)

Cash-in/cash-out network

As discussed previously, the use of a distributed agent network is what transforms the economics of offering financial services to the poor from a high-fixed-cost business to a low-variable-cost business. As such it is the lynchpin of a sustainable mobile money service.

Operators bring experience from airtime distribution that is relevant to building a network of mobile money agents. Every mobile operator in the developing world has developed a sophisticated airtime supply chain that involves a large number of independent airtime dealers. (Bharti Airtel airtime is available for purchase at more than 1.5 million retailers in India, for example.) Appointing and managing channel intermediaries, performing margin analyses, devising trade promotions, and finding ways to get branded collateral to the farther reaches of their markets are some of the capabilities that operators have built for distributing airtime and that can be leveraged when building a mobile money agent network.

Not having traditionally relied on independent agents, most banks lack this expertise. However, an interesting regional exception to this rule is Latin America, where banks in countries like Peru and Brazil have built networks of banking agents themselves. Although these are smaller than airtime distribution networks, they have developed know-how around training and monitoring agents who perform transactions and collect KYC information. This represents both a capability and an asset: these banks have the know-how to create an agent network and they can leverage the network they've already built to serve as cash-in/cash-out points for a mobile money service.

Finally, in Latin America and in India, a special kind of third party has emerged, sometimes dubbed an agent aggregator, which takes on the task of building and managing a network of agents on behalf of the business owner of a mobile money service. These players recognize the value of such agent networks (and, in some cases, realize economies of scale by "selling" the use of its agents to multiple mobile money or other service providers), although their ability to build and maintain them will vary.

Liquidity management (superagency)

Despite rarely having experience building agent networks themselves, there is one component of agent network management where banks can add significant value to a mobile money deployment without building any new capabilities: liquidity management. One of the biggest challenges facing mobile money services is the need to keep agents, particularly in rural parts of the country where customers primarily seek to perform cash-out transactions, stocked with enough cash to meet demand. Banks have established cash logistics networks and instituted appropriate security measures to maintain deep pools of liquidity in their branches; as such, **these branches can support the agent network by allowing agents to exchange electronic value for cash in their branches.** Banks which play this role, sometimes called superagents, are usually compensated with a per-transaction fee that may increase with the size of the transaction; the fee can be charged to the agent, the masteragent, or the operator.¹⁰

What makes a bank an attractive superagent? Primarily, a large branch network in rural areas, where agents are most desperate for cash. Rural banks and other banks that target the poor are most likely to have such networks.

Why would a bank want to serve as a superagent? Serving as a superagent offers banks an additional revenue stream—one that is particularly attractive in branches that suffer from low capacity utilization. (If transaction values are significant, however, they will force the bank to assume new costs: not just for headcount, but also to move cash where it is needed within the branch network.) Serving as a superagent also allows banks that have clients that are

agents of the mobile money service provide those clients with the convenience of being able to rebalance their float at the same time they perform banking transactions.

Occasionally, banks offer to use their branches not as superagents that serve agents, but as agents that serve customers. United Bank for Africa (UBA) has recently forged an agreement with MTN to serve this function in Uganda, hoping not only to earn transaction fees but also cross-sell users on full UBA bank accounts and other products once they're in the branch. However, it remains to be seen whether this model is sustainable in the long term, given the high fixed costs of formal bank branches discussed in the introduction to this article.

Finally, it is worth highlighting an important asset that banks can leverage in a mobile money service: its network of ATMs (i.e., cash machines). ATMs can complement a network of independent agents as an option for customers seeking to cash out. Making use of this asset typically requires either issuing users ATM cards that are linked to their mobile money account (the option adopted by SMART Money in the Philippines) or undertaking a software upgrade to ATMs to allow customers to initiate and authenticate a withdrawal with their PIN rather than with a card (the route taken by M-PESA in Kenya).

¹⁰ For more on superagents, masteragents, and liquidity management, see "Building, Managing, and Incentivising a Network of Mobile Money Agents" by Paul Leishman and Neil Davidson (<http://mmublog.org/global/gsma-publish-2010-mobile-money-for-the-unbanked-annual-report-2/>). 9

Technology

Transactional platform

Mobile money services require the development and maintenance of a transactional platform that creates individual accounts (“mobile wallets”) for customers and agents; processes movements of value between accounts; and interfaces with handsets, billers, and the core mobile platform.

Both mobile operators and banks have extensive experience operating transactional platforms, although they bring complementary strengths to the table: banks stress the importance of integrity and robustness when it comes to core banking systems, while operators’ first priority for their airtime billing platforms is stability and speed when handling huge volumes of transactions.

In practice, however, banks and operators rarely build their own mobile money transaction platforms, because there are a host of third-party providers offering them in the marketplace.¹¹ The role of the bank or the operator is usually therefore confined to selecting the vendor, providing business rules and other specifications, developing APIs for systems integration, and (in many cases) hosting and operating the platform.¹² Given the complementary standards by which banks and operators evaluate transactional platforms, operators can consult with their bank (or vice versa) when selecting a technology solution to be sure that it meets the needs of each participant in the value chain.

Access to the handset

To offer users of a mobile money service the ability to initiate transactions on their handset, a data channel and user interface must be established. Generally speaking, it is difficult to offer customers a user-friendly experience without the mobile operator either (1) embedding a menu for the mobile money service on the SIM card or (2) assigning a USSD short code and providing access to the USSD gateway.¹³

This is the single asset necessary for mobile money which banks are unable to build on their own. But banks can negotiate with operators for access to the handset in either of these two ways described above. In South Africa, SIM cards of all the major mobile networks carry mobile banking applications, allowing users to access their existing bank accounts from the handset, while WIZZIT has secured access to the USSD channel from the three leading operators in the market.

Customer care

Both mobile operators and banks run, or outsource, call centres that cater to their existing customers. In principle, then, either is well-positioned to set up this function for a mobile money service—particularly since both banks and operators have found that they train a sub-set of their call-centre staff to deal with mobile money inquiries in order to effectively resolve problems for customers. Similarly, banks and most operators have experience running walk-in customer care points (branches in the case of banks, and flagship stores or customer care centres in the case of mobile network operators).

Float holding

As noted in the introduction, float is always held by a bank and never by a mobile network operator, because only banks are licensed to take deposits.

Why would a bank want to hold float for a mobile money service? First, banks make money on deposits by charging borrowers higher interest rates than they pay depositors, and they can make money on float holdings in exactly the same way.¹⁴ If a mobile money service achieves significant scale, this can become a very large deposit. And it’s an unusually stable deposit: because it represents the holdings of many end users and agents, it is unlikely to fluctuate in value significantly overtime. Second, banks can charge mobile operators transaction fees. Since float accounts can be high-transaction-volume accounts, these fees can be considerable. Third, there is at least one indirect benefit of holding float. Clients of a bank holding float for a mobile money service are sometimes able to convert deposits in their own accounts into e-money sometimes more quickly than others, because an intrabank transfer is faster than an interbank one. Some M-PESA agents have opened accounts at CBA to take advantage of this difference.

Operators need not use only one bank to hold float. In Kenya, Safaricom and CBA decided once the value of the float account had reached a certain threshold that, for prudential reasons, it made sense to diversify the holding among several banks. Today, the float that backs up value in the M-PESA system is split between three Kenyan banks: CBA, Standard Chartered, and CFC Stanbic (the local subsidiary of Standard Bank).

¹¹See the MMU technology vendor survey for an overview.

¹²The acronym API stands for application programming interface, which refers to the interface of one piece of software (in this case, a payments platform) that allows it to interface with another.

¹³It is technically possible for banks to offer mobile money without working with operators by using fully open mobile channels. But each of these poses significant challenges or costs: SMS interfaces are difficult to use and are not secure; voice is expensive; and the mobile web is inaccessible to most low-income customers.

¹⁴Although in some markets, banks struggle to place their holdings in this way, limiting the value that they capture from deposits alone.

License acquisition, regulatory engagement, and compliance

Practically every mobile money service in the world requires the permission of the national financial regulator (typically, the central bank) to offer a mobile money service. In some markets, the regulator will only confer an e-money or payments license (or a letter of no objection) to banks; in others, both operators and banks are eligible.

Banks clearly have the edge over mobile operators when it comes to license acquisition and regulatory engagement. Banks are able to build on existing relationships with the central bank, and they are already intimately aware of the concerns and perspective of the financial regulator. They also have established compliance functions and understand issues like anti-money laundering (AML). Operators who seek to be licensed directly must establish new relationships and educate themselves on the central bank's interests from scratch. **Even so, operators who are eligible for direct licensing typically choose to pursue it themselves.**

But when regulators do not give operators this option, we often see banks serving as the licence holder and regulatory engagement manager for mobile money services, even if the operator is the business owner and/or carries out the bulk of the other activities in the mobile money value chain. For example, Vodafone Qatar works with Doha Bank as a supplier that provides, among other services, an interface with the Qatar Central Bank and that audits Vodafone Qatar's processes for regulatory compliance.

Whether banks and operators, and indeed regulators, will find this arrangement satisfactory going forward is an open question. At least one operator we spoke to has found its aspirations to extend the functionality of its mobile money service foiled by the bank holding its payments licence; the bank, fearing that the new functionality (bulk payments) would encroach on one of its existing business lines, declined to propose the new functionality to the regulator. At the same time, banks can struggle to manage the risks entailed by a mobile money service when they do not directly control its operations. Operators and banks in this situation routinely complain that the other fails to appropriately gauge the riskiness of the service and often fail to agree on the appropriateness of risk-mitigation measures like the AML policy—the root cause often being a compliance policy, developed by a global bank to protect against risks in mature markets, that the operator (and sometimes the local bank subsidiary itself) feels is ill-suited to managing the actual risks of a mobile money service. Finally, regulators can be left frustrated when they find they lack direct oversight of those operations. This has prompted regulators to move in one of two directions: to restrict the ability of banks to “outsource” responsibilities to mobile operators—forcing banks who wish to offer mobile money to operate the service themselves—or to make mobile operators eligible for direct licensing as a payments provider or e-money issuer—giving the central bank direct oversight of the operations of a mobile money service.¹⁵

Compliance: a thorn in the side of many operator-bank relationships

Many mobile network operators express frustration with the conservative approach that banks take to interpreting and fulfilling regulatory requirements. Banks counter that operators fail to appreciate why they take compliance so seriously.

Financial regulations are established by national regulators (typically the national central bank). In many cases, the rules that they write are strongly influenced by international standards setters like the Financial Action Task Force (FATF), the remit of which is to minimize the risk that the global financial system will be used to finance terrorism or launder money.

Countries that do not impose sufficient anti-money-laundering (AML) controls can be subject to sanctions by FATF. In the same way, banks adhere closely to rules that national regulators set because laxity in doing so can jeopardize their business. Financial regulators are often empowered to impose harsh penalties on banks they deem non-compliant, up to, in extreme circumstances, license revocation and/or criminal prosecution. International banks must comply with regulations both where they are based and where they are operating, and for obvious reasons must hold themselves to whichever standards are more stringent.

This is why banks take regulatory compliance so seriously when it comes to mobile money for the unbanked—and why it's important for banks and operators to work together to help regulators devise requirements that are risk-proportionate.¹⁶

What qualifies a bank to take responsibility for license acquisition, regulatory engagement, and compliance? In some markets, operators have been encouraged by the regulator to work with a bank that is locally owned rather than part of an international group. In other cases, operators have sought the prestige that comes with the brand name of a multinational. It is also important to evaluate how strategic the bank considers mobile money compared to its core business: banks that are highly committed to mobile money may be more willing to “go to bat” for the service with the regulator on issues like KYC requirements than those more preoccupied with protecting their existing franchise.

¹⁵ See “E-Money: A Guide for Mobile Network Operators” by Andrew Zerzan (forthcoming).

¹⁶ See the GSMA discussion paper “Mobile Money: Methodology for Assessing Money Laundering and Terrorist Financing Risks” by Marina Solin and Andrew Zerzan (<http://mmublog.org/global/methodology-for-assessing-money-laundering-and-terrorist-financing-risks/>).

Product and business development

A wide variety of services can be offered on a mobile money platform. Although payments (principally P2P) have constituted the first wave of service offerings globally, there is substantial scope for this range of services to be expanded over time. Developing these services requires assessing customer needs, product design, partner identification and selection, market sizing, pricing, and financial modelling.

Neither banks nor operators bring the ideal set of capabilities to the task of devising mobile financial services for the poor, as the degree of product- and service-line innovation in both industries tends to be low (compared, for example, to consumer package goods firms). Still, **mobile operators know the low-income consumer, while banks understand how to design and price financial services** (although only in certain cases will they have experience doing so for the poor). To date, however, very few operators and banks have taken advantage of this natural complementarity for the purposes of product development for mobile money.

Of course, when it comes to actually operating more sophisticated financial services, banks have an asset (the license to offer a financial service) that operators will probably never apply for. Operators cannot pay interest on savings, cannot make loans, and cannot write insurance policies; only financial institutions can. As such, **regardless of who designs these services, operators will need to turn to banks (and/or insurance companies and other non-bank financial institutions) to actually offer them.**

What makes banks and operators attractive to each other?

In the course of our interviews with banks and operators, we heard some interesting, and in some cases surprising, views about what they look for in a potential partner.

Bigger is not always better: Banks agreed that operators with large market shares are most attractive. But operators did not always feel the same about banks. In most cases, the size of a bank's customer base was irrelevant to mobile operators. More important was evaluating how committed to mobile money the bank was likely to be: a big bank (in terms of revenues) might actually turn out to be a less committed partner than a small one.

Local vs. international: We sometimes heard that it is easier to work with locally owned companies rather than subsidiaries of multinationals, because local management is empowered to structure and enter into agreements more quickly. On the other hand, some multinationals bring to bear valuable experience from other markets in offering mobile money for the unbanked.

A commitment to serving the poor cuts both ways: Banks with a commitment to serving the poor might be expected to be more enthusiastic about participating in mobile money given its relevance to the low-income market. But some are reluctant to offer mobile money services that could cannibalize their existing business. Those which do choose to participate in the mobile money value chain may seek to control more of it.

How can banks and operators structure their agreements most effectively?

Once a bank or an operator has decided which parts of the value chain it wishes to own, and identified a counterpart willing to take on those it doesn't, the arrangement can be formalized in a commercial and legal agreement.

Simple outsourcing contracts

By far the most common approach is for one party, the business owner, to contract with the other to provide certain services.

Banks and operators have experience outsourcing some activities—making it easier for them to offer these functions to the business owner of a mobile money service. For example, it is straightforward for WIZZIT to contract with South African mobile operators to provide access to short codes and their USSD gateways in part because operators in that market offer such access to other companies as well. It is even easier for operators to open an account at a bank for float holding because offering deposit accounts to other businesses (and customers) is something banks do all the time. **But it is harder for banks and operators to outsource what has traditionally been a support function of their own core business.** For example, it is difficult for banks to take responsibility for license acquisition, regulatory engagement, and compliance for a mobile money service that is operated by a mobile operator. In part, this is because banks are accustomed to providing such services for themselves but not for external clients. This can be contrasted with float holding, which requires only that banks open and maintain a deposit account for the operator—something banks do for external clients every day.

In addition, investment in certain activities is so closely linked to the ultimate success of the service that it would be very difficult to design a contract that would incentivise an entity other than the business owner to invest appropriately. For example, it would be almost impossible to assign responsibility for investment in marketing communications to a party other than the mobile money service's business owner. Given the tight link between marketing spend and customer adoption, between customer adoption and revenues, and between revenues and profits, it would be unrealistic to expect any party except the business owner—which keeps the profits from mobile money after other parties have been compensated for their contributions—to adequately invest in marketing communications.

Lastly, it is difficult to outsource a function that will lack specifiable, and measurable, outputs. If it's not possible to write a service-level agreement (SLA) that is clear about the service provider's obligations to the business owner, it will be hard to share that part of the value chain.

When services can be delegated, they are usually provided on a fee-for-service basis. Examples include:

- For *superagency*, business-owning operators typically pay banks a flat fee every time an agent sells e-money to a branch for cash or a percentage of the value of the e-money sold to the branch for cash, although these fees are sometimes passed on to agents
- For *access to the handset*, business-owning banks and third parties typically pay mobile operators a per-session fee, plus a flat fee for space on the SIM (if applicable)
- For *float holding*, banks can charge transaction fees but typically pay interest to the business-owning operator—unless the bank is providing other services, such as *license acquisition, regulatory engagement, and compliance*—in which case interest is often not paid at all

Commercial terms for such deals vary widely across (and sometimes even within markets), and it can be difficult for banks and operators to ascertain how much they should be paying for a given service. Operators are able to exploit the fact that, in most markets, banks outnumber operators by a wide margin and can open negotiations with multiple banks—allowing them to choose a supplier of a given service or services based in part on the cost of such services. If, for example, a mobile operator seeks a bank to serve as a superagent, it can open discussions with several to find out how much it might need to pay. Banks, which often seek to cut deals with multiple mobile operators or restrict themselves to working with only operators with large market shares, are less able to use parallel negotiations to discover prices in the same way. Similarly, operators which structure their contracts carefully will have the opportunity to switch banks after launching their service; banks usually do not have this luxury.

Finally, it is worth noting that, in cases where a bank and a mobile network operator are positioned equally to perform a certain activity—customer care, for example—there will be no reason to delegate it to the non-business-owning party. Even if a business owner can achieve modest efficiencies by outsourcing an activity to another party, the time and expense required to make the necessary commercial and operational arrangements might outweigh the value of realizing such efficiencies.

Sharing risk and reward: more ambitious partnerships

When operators and banks want to share business ownership of the mobile money service, they will need to structure a partnership in which revenues, or profits, are shared between them according to some formula. Tameer Microfinance Bank and Telenor Pakistan, which jointly offer easypaisa, split revenues according to a set formula; then, because Telenor owns 51% of Tameer, profits are ultimately split between the partners. Another option is to form a joint venture (JV), as MTN and Standard Bank in South Africa did to form MTN Banking.

This structure makes most sense when both parties must invest significantly in driving the business to grow, because it aligns their interests to the long-run success of the venture. In this way, such agreements minimize conflicts of interests between the two parties: since both win when the venture succeeds, both are likely to support its growth. It also makes sense when both parties aspire to offer an increasingly comprehensive suite of financial services in the future.

At the same time, compared to ordinary, arms-length contracts, such agreements are significantly more difficult to structure and maintain over time—and, for better or for worse, they are more difficult to dissolve. MTN Banking, one of the most famous early experiments in mobile money, struggled to achieve a critical mass of formerly unbanked users in part because of the difficulty of coordinating the investment by and activities of its two main stakeholders, MTN and Standard Bank. The JV did not eliminate the need for MTN and Standard Bank to carry out certain activities in the mobile money value chain; as such, the creation of the JV actually multiplied the number of contracts and SLAs that were necessary to orchestrate the entire value chain. Banks and operators contemplating such arrangements therefore have to consider whether the cost of setting up, and getting right, such a complex agreement are outweighed by the potential benefits of close collaboration.¹⁷

Regardless of their complexity, banks and operators note the following best practices in structuring agreements with each other:

- *Clarity about responsibilities:* the more carefully expectations and requirements are enumerated in a commercial agreement (and associated service level agreements), the less likely disputes are to arise later. This should include a mechanism for identifying problems and should clearly designate who is responsible for solving them in order to minimize disruption for the end user.
- *An explicit governance structure:* a steering committee composed of managers with decision-making authority, designated points of contact, and/or other mechanisms for communication and coordination help keep partners aligned.
- *A win-win proposition, now and in the future:* both parties need to be adequately rewarded for participating in the relationship. But it is difficult for banks and operators to assess how a new business will evolve over time. Building in regular opportunities to assure that the agreement remains a “win-win” makes it more likely that both parties stay engaged and committed.

¹⁷Interviewees stressed, however, that to focus only on those issues arising from the structure of MTN’s and Standard Bank’s partnership gives an incomplete picture—a number of other contextual factors played their roles, too.

Appendix I: A checklist for negotiating (or re-negotiating) operator-bank agreements

Careful planning, negotiation, and deal-making are the foundation for effective bank-operator relationships. In this appendix, we offer both parties a checklist of questions to ask, and things to remember, when forging relationships with each other.

Take stock

Before seeking out potential counterparties, it makes sense to begin with an internal assessment.

- What is our company's strategy? Is mobile money complementary to it?
- What role do we seek to play? Do we have the management buy-in, investable capital, and risk appetite to be the principal, owning the mobile money business, with the risks and rewards that it entails? Or do we prefer to act as a service provider, limiting our investment and our potential upside?
- What are our strengths and our relative weaknesses? Does the table on page 7 accurately describe them?
- What parts of the mobile money value chain are we well positioned to own? Which are we not?
- What characteristics do we seek in a counterparty?

Align on objectives and allocation of activities

It's difficult to negotiate with a partner that doesn't share your vision or that fundamentally disagrees about the assets and capabilities that they bring to the table. The following questions can be used to assess whether there's a good fit between an operator and a bank.

- What are the strengths and weaknesses of each party? The assets and capabilities of each?
- What kind of service are we hoping to build together? Who is the customer? What services will we offer, now and in the future?
- Do the negotiating partners have the authority to represent their respective organizations, or do they lack buy-in, from above or below or from across relevant functional areas?
- Can we agree on which parts of the mobile money value chain to allocate to each partner?

- Is one party comfortable as the business-owning principal and the other as a service provider, or do both seek a closer partnership agreement where risks and rewards are more evenly divided?

Agree commercial terms

Agreeing on commercial terms is often one of the most challenging parts of any negotiation.

- Could the service (or group of services) being sought be provided by any other bank or operator? That is, how unique is the contribution being made? Would exploratory negotiations with another party help pinpoint the value of the service being offered?
- What costs (investment, operating expenses) will the service provide be obligated to assume?
- How much risk does each party seek to take on? Does the service provider prefer to take on more risk (suggesting a revenue-sharing arrangement) or less (fee-for-service)?
- Will exclusivity be required of one or both parties?

Establish a governance structure

- How will we monitor the effectiveness of the working relationship? In what forum(s) will we discuss and resolve concerns?
- When will we revisit the commercial terms of the arrangement, and revise them if necessary?

Look ahead

- If in the future we seek to extend the range of services offered to customers, how will we expand our agreement accordingly? What if only one party is interested in such expansion, or if such expansion would cannibalize an existing business of one of the parties?
- If in the future it becomes necessary to do so, how will we unwind our agreement?

Appendix II: Case studies

Safaricom, Commercial Bank of Africa, Equity Bank, and other Kenyan banks

Safaricom launched M-PESA in March 2007, a story which has been told in exhaustive detail elsewhere.¹⁸ This case study examines the evolution of Safaricom's relationships with banks in Kenya—from a simple, one-to-one partnership with a float-holding bank to its role at the centre of an ecosystem that encompasses most of Kenya's banks today.



Volunteers wanted: finding a home for M-PESA's float

In 2004 when Vodafone was in the visioning phase for M-PESA, Safaricom invited a number of banks and MFIs to join with them to develop a mobile payments service—although at the time, details were quite sketchy about what the service was going to look like. Apart from a local MFI, Commercial Bank of Africa (CBA) was the only one to say yes.

CBA started operations in 1962. It is owned by private shareholders and is the 6th largest bank in Kenya, with 15 branches, mainly in Nairobi and Mombasa. Its customer base is chiefly corporate investors, high net-worth individuals and institutions such as NGOs, embassies, etc. One of CBA's corporate clients in 2004 was Safaricom, and CBA executives saw working with Safaricom on M-PESA as a way of deepening that relationship. In retrospect, Douglas Pinto, Head of Corporate Business for CBA, speculates that the fact that CBA are locally owned and managed allowed them to seize this opportunity in a way that would have been difficult for the local operations of a big banking group.

CBA joined a steering committee constituted to develop the idea of M-PESA and was ultimately asked by Safaricom to be the exclusive custodian of M-PESA's e-float. Its role can be understood as the ultimate M-PESA superagent, since any agent, superagent or other business transacting with M-PESA which wants to buy or sell e-money must make a deposit or withdrawal with CBA. However, Safaricom is responsible for creating and destroying e-money based on transaction reports that are delivered to it by CBA throughout the day and for continuously reconciling the value in the bank account with the value of e-money in

M-PESA. The bank account is in the name of a trust called M-PESA Holding Company, the legal entity which holds deposits on behalf of everyone who has an e-money balance in M-PESA.

CBA makes money three ways from holding M-PESA float. First, it assesses transaction fees—and a lot of them. Since every time an agent buys or sells e-money they must make a deposit or withdrawal with CBA, this is an exceptionally high transaction-volume account. Second, as with any deposit, CBA benefits from the spread between what it charges borrowers and what it pays the M-PESA Holding Company. (CBA and the M-PESA Holding Company negotiate that interest rate on a monthly basis.) Third, it is slightly faster for agents to convert money to e-money when they transfer from a CBA account, so some M-PESA agents have opened accounts at CBA to benefit from this.

A senior account manager at CBA manages the M-PESA relationship, handling issues when they arrive. An SLA is in place, primarily to provide guidelines on how long transactions should take to complete.

In interviews, representatives from both CBA and Safaricom mentioned that part of the success of their relationship is the absence of a conflict of interest between CBA's and M-PESA's business model: CBA does not compete for M-PESA's targeted customer base (middle to low-income).

Since March of 2007, when M-PESA was launched, the value of deposits backing up electronic value has ballooned. Safaricom, the M-PESA Holding Company, and CBA agreed it was prudent to limit the size of CBA's holding, so today, Standard Chartered and CFC Stanbic hold some of the deposits as well.

Enlarging the ecosystem: linking with Kenya's formal financial system

Although M-PESA was designed to appeal to the unbanked, a survey in 2008 indicated that 72% of M-PESA users had bank accounts.¹⁹ Many of these customers sought a way to move money between their bank accounts and their M-PESA wallets. The Vodafone Money Transfer platform, which runs M-PESA, was not originally designed with transfers between wallets and bank accounts in mind, so Safaricom was only able to offer banks and their customers a rather jury-rigged mechanism:

¹⁸ The classic account, by two of the architects of M-PESA, is "M-PESA: Mobile Money for the 'Unbanked':

¹⁶ Turning Cellphones into 24-Hour Tellers in Kenya"

(http://www.policyinnovations.org/ideas/policy_library/data/m_pesal/_res/id=sa_File1/INNOV0201_pp-63-81_hughes-lonie_1.pdf).

■ If banks wanted to allow their customers to sweep money into their bank accounts from the M-PESA wallet, they could use the M-PESA Pay Bill functionality. Customers could initiate these transactions directly from the M-PESA menu on their handset. Citibank, Co-operative Bank, Eco Bank, Family Bank, Post Bank (the Kenyan post office bank), and K-REP Bank have all enabled this service for their clients.

■ On the flip side, banks can use M-PESA's bulk-payment functionality to give their customers the ability to transfer money from their account to M-PESA. Family Bank, Kenya Commercial Bank, and CBA offer this service, although such transactions must be initiated through a channel, like mobile banking, other than the M-PESA menu.

Microfinance institutions have also taken advantage of these options to disburse loans and collect loan payments from their clients.

Safaricom has established fixed tariff structures for corporate customers seeking to use either the Pay Bill or bulk-payment functionality of M-PESA. Banks can, in turn, pass some or all of these fees on to customers if they wish.

New products for a new platform: the partnership with Equity Bank

One of the banks Safaricom developed links with during this period was Equity Bank. Equity Bank is Kenya's largest bank with roughly 4.3 million bank accounts. It was originally a building society until it transformed to a full bank in the early 2004, and has since experienced massive growth. It has taken a commercial approach to financial inclusion and aims to provide a bank account to every Kenyan adult.

Unlike CBA, Equity viewed the rise of M-PESA as a competitive threat. As such, decisions about whether and how to collaborate with Safaricom were complex. The decision to serve as an M-PESA superagent is illustrative. Many Equity Bank customers were small business owners who served as M-PESA agents, and Equity recognized that allowing these agents to buy and sell float when they visited the branch to perform other business would be a valuable service. But Equity evaluated the commission that Safaricom pays and felt it was too low compared given the time it would take their tellers to fulfil the transactions. Ultimately, they compromised: offering customers the service, but not promoting it.

It took a meeting between James Mwangi, Equity's charismatic CEO, and Michael Joseph, his counterpart at Safaricom, to set in motion the collaboration that would lead to M-KESHO. The vision



was simple: to offer users the ability to access sophisticated financial services via the familiar M-PESA interface.

Senior representatives from Safaricom and from Equity spent the next 12 months together designing, developing, and testing the service. The offering (which evolved to include a savings account, a short-term loan facility, and a microinsurance product—all of which could be accessed on the phone after a one-time account opening process at an agent) was jointly designed by this team—although the design of the bank account itself was the responsibility of Equity as the bank.²⁰ The design process was carried out largely in secret, to avoid news of the offering leaking before it was ready to launch.

Reportedly, the design process was slow but not contentious; the commercial negotiation was more challenging. Equity Bank sought to retain all transaction revenues charged for offering what it considered to be financial services; Safaricom, which was providing the channel, felt this rule of thumb was inappropriate given the distribution costs they were saving Equity Bank.

Eventually, in May 2010, Safaricom and Equity reached agreement and brought to market their new service. Almost all of the functions related to M-KESHO—including marketing, product development, IT, and regulatory engagement—are performed jointly. As such, meetings are frequent on the operational level (e.g. customer care, agents, marketing and IT). But there are no full-time resources at Safaricom or at Equity dedicated to M-KESHO, with the exception of a back-office team at Equity responsible for processing account-opening forms.

By November 2010, roughly four months after the launch M-KESHO, 650,000 customers had signed up for the service, depositing a total 600 million Kenyan shillings (US\$7.5 million) into M-KESHO savings accounts to date.

¹⁹ See "The performance and Impact of M-PESA: Preliminary Evidence from a Household Survey" by Tavneet Suri, Caroline Pulver, and William Jack (http://technology.cgap.org/technologyblog/wp-content/uploads/2009/10/fsd_june2009_caroline_pulver.pdf).

²⁰ See "A financial inclusion holy alliance in Kenya: Equity Bank accounts riding on M-PESA rails" by Ignacio Mas (<http://mmublog.org/africa-east/m-kesho-in-kenya/>) for a full description of M-KESHO.

Telenor Pakistan and Tameer Microfinance Bank

Telenor Pakistan is the second largest mobile network operator in Pakistan, which has a large and poor population that is poorly served by existing financial institutions. Telenor Group had experience operating an over-the-counter bill payment scheme in neighboring Bangladesh (Grameenphone), and when it began to study the Pakistan market in 2007 it expected to import a similar model.

But in March 2008, the State Bank of Pakistan issued “Branchless Banking Regulations for Financial Institutions Desirous to undertake Branchless Banking.” These explicitly forbade mobile network operators from offering mobile financial services. In addition, it specified parts of the value chain—for example, risk management—that the bank could not outsource, and others, such as agent network management, which it could.

Given these constraints, Telenor identified Tameer Microfinance Bank as its most suitable partner in Pakistan. Founded by a group of ex-Citibank bankers, Tameer had a demonstrated commitment to, and knowledge of, the low-income market, and they had been experimenting with branchless banking since 2006. Importantly, as a regulated deposit-taking microfinance banks, Tameer could accept deposits and pay interest in addition to making loans.

The branchless banking guidelines specified that Telenor could not own some parts of the mobile money value chain. But for the others, Tameer and Telenor engaged in a painstaking audit of organizational competence to decide which party would take on each activity required to offer their service—to be called easypaisa.



How Telenor and Tameer describe, and split, activities in the mobile money value chain



In November 2008, Telenor announced that it was buying a 51% stake in Tameer. The acquisition was motivated by a number of considerations:

- Allocating responsibilities according to the above schematic was going to be difficult; defining the formula for allocating revenues and profits was going to be even harder. Telenor’s acquisition of Tameer took some of the pressure off of those discussions, since it reduced Telenor’s incentive to “negotiate hard” for its peice of the profits (since 51% of the profits accruing to Tameer would flow up to Telenor eventually)
- The acquisition gave Telenor better strategic control over its mobile money approach in Pakistan, flexibility it would be unable to attain any other way given the branchless banking guidelines
- The acquisition, which was structured as a rights issue, provided Tameer capital which could be used not only to invest in easypaisa, but also in its core, branch-based lending business
- The acquisition cemented Tameer and Telenor’s commitment to each other and to easypaisa

Nevertheless, since Telenor only acquired some of Tameer’s shares, it still had to structure an arms-length deal with Tameer to allocate responsibilities and share value. As such, in addition to the Tameer shareholders’ agreement to which Telenor is a party, two agreements were forged between Telenor and Tameer: a superagency arrangement, which empowers Telenor to appoint and manage agents (under Tameer’s close supervision) and an agreement which enumerates Telenor’s IT responsibilities. Telenor is paid for its services according to a revenue-sharing model in which revenues are shared based on the costs that each party incurs. No goods or services are billed from one partner to the other, eliminating the need to agree transfer pricing.

A virtual organization, composed of staff from both companies, runs easypaisa. It is managed by a steering committee: the CEOs of both Telenor and Tameer, who meet monthly. Reporting into the steering committee are senior executives who oversee the group, which is composed of some dedicated, and many more shared, resources.

Despite major challenges (KYC requirements in Pakistan are very restrictive, making account opening a major obstacle for customers), Telenor and Tameer have together built one of the most successful mobile money services in the world. Between October 2009, when it was launched, and September 2010, over five million transactions (bill payments and money transfers) were processed by easypaisa.

Appendix III: Glossary²¹

Agent – a person or business that is contracted to facilitate transactions for users. The most important of these are cash-in and cash-out (i.e. loading value into the mobile money system, and then converting it back out again); in many instances, agents register new customers too. Agents usually earn commissions for performing these services. They also often provide front-line customer service—such as teaching new users how to initiate transactions on their phone. Typically, agents will conduct other kinds of business in addition to mobile money.

Aggregator – a person or business that is responsible for recruiting new mobile money agents. Often, this role is combined with that of a masteragent, and the two terms are sometimes used interchangeably.

Anti-money laundering/combating the financing of terrorism (AML/CFT) – a set of rules, typically issued by central banks, that attempt to prevent and detect the use of financial services for money laundering or to finance terrorism. The global standard-setter for AML/CFT rules is in the Financial Action Task Force (FATF).

Cash in – the process by which a customer credits his account with cash. This is usually via an agent who takes the cash and credits the customer’s mobile money account.

Cash out – the process by which a customer deducts cash from his mobile money account. This is usually via an agent who gives the customer cash in exchange for a transfer from the customer’s mobile money account.

E-money – short for “electronic money,” is stored value held in the accounts of users, agents, and the provider of the mobile money service. Typically, the total value of e-money is mirrored in (a) bank account(s), such that even if the provider of the mobile money service were to fail, users could recover 100% of the value stored in their accounts.

Float – the balance of e-money, or physical cash, or money in a bank account that an agent can immediately access to meet customer demands to purchase (cash in) or sell (cash out) electronic money. It can also refer to the total value of all electronic money issued in a mobile money service which is deposited in a bank account.

Know Your Customer (KYC) – rules related to AML/CFT which require providers to carry out procedures to identify a customer.

Liquidity – the ability of an agent to meet customers’ demands to purchase (cash in) or sell (cash out) e-money. The key metric used to measure the liquidity of an agent is the sum of their e-money and cash balances (also known as their float balance).

Masteragent – a person or business that purchases e-money from an MNO wholesale and then resells it to agents, who in turn sell it to users. Unlike a superagent, masteragents are responsible for managing the cash and electronic-value liquidity requirements of a particular group of agents.

Mobile money - a service in which the mobile phone is used to access financial services.

Platform – the hardware and software that enables the provision of a mobile money service.

Regulator – in the context of mobile money, this typically refers to the regulator who has supervisory authority over financial institutions within a particular country—usually the central bank or other financial authority.

Savings – traditionally, the storage of a customer’s money by a bank within an interest-bearing account. It is sometimes used more loosely to describe any store of money, such as the balance of electronic money within a mobile wallet.

Superagent – a business, sometimes a bank, which purchases electronic money from an MNO wholesale and then resells it to agents, who in turn sell it to users.

Unbanked – customers, usually the very poor, who do not have a bank account or a transaction account at a formal financial institution.

²¹ More mobile money terminology is defined in “Mobile Money Definitions,” available at <http://mmublog.org/uncategorized/mobile-money-terminology/>.



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