Achieving Interoperability IN MOBILE FINANCIAL SERVICES

Tanzania Case Study

IFC International Finance Corporation
WORLD BANK GROUP

Achieving Interoperability

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INTRODUCTION

Interoperable standards, a set of agreed rules and standards facilitating customer transactions among service providers, has been a focus area in the mobile financial services industry for several years. Regulators, vendors and providers initiated this discussion as far back as the inaugural GSMA MMU meetings in 2008 in Cairo[1]. Despite the apparent advantages of interoperability, great industry interest and some ambitious initiatives, success has generally been elusive outside of bank-to-wallet integrations. This is largely because interoperability has either been mandated by the central bank or has focused only on technical integration (as in Indonesia), a less efficient solution than effective interoperability[2]. In 2014, Tanzania became the first country to successfully develop and implement standard business rules for interoperable MFS transactions. Currently, registered users at participating MFS providers can receive and send money directly to one another's wallets under rules developed at the industry level that govern how those payments flow. It is the first phase of a longer term vision of interoperability across the entire MFS ecosystem.

This case study examines Tanzania's journey to-date in establishing rules to govern MFS interoperability by tracing the contextual factors, motivations, and processes that contributed to the agreement reached in September 2014 to interconnect according to an agreed industry set of rules for wallet-to-wallet transfers (supported with bilateral agreements between operators). It builds on interviews conducted with all stakeholders[3] involved in interoperability discussions between December 2012 and November 2014. From these interviews, common themes have emerged that suggest important factors contributing to Tanzania's experience. This case study does not describe in detail the actual solution, but rather provides background on the industry engagement process. It includes high level information on the solution as it relates to the choice of interparty agreements, business model and clearing and settlement architecture.

1 Jenkins, B. (2008). Developing Mobile Money Ecosystems. Obtained from http://www.hks.harvard.edu/m-rcbg/papers/jenkins_mobile_money_summer_008.pdf

2 Based on a framework developed by CGAP, effective interoperability refers to a level of interoperability whereby intended objectives are met and fees are optimal.

3 Stakeholders were defined as those industry representatives directly involved in the ongoing negotiations on interoperability, including banks currently providing MFS services (NMB and CRDB), Tanzania's mobile operators (Airtel, Tigo, Vodacom, Zantel), payment system regulators at the Bank of Tanzania, the process facilitator (IFC), the industry association GSMA, and funders at Financial Services Deepening Trust and the Bill and Melinda Gates Foundation.

DEFINING MFS INTEROPERABILITY

Interoperability can mean different things. At the most basic level, and for the purpose of this study, interoperability is defined as "the possibility to transfer money between customer accounts at different mobile money schemes and between accounts at mobile money schemes and accounts at banks"[4] (GSMA, 2014). Interoperability should not be confused with interconnection, which is the ability to technically connect with another network.

Interoperability is considered important because of its potential effects on consumers, businesses and the economy. In mature markets and where scale has been achieved, interoperability can help businesses to manage costs, increase efficiencies through shared infrastructure and to increase transaction volumes. Customers benefit from network effects and ideally from reduced transaction costs. Governments believe that interoperability can help advance financial inclusion due to reduced transaction costs and can also lower the cost of printing and managing cash (CGAP, 2012)[5]. A 2008 study of interoperability in Latin America by the World Bank Payments Systems Group suggests that a more efficient payments system, through interoperability, in Brazil could result in a saving of 0.7 percent of GDP per year[6]. Similarly, the practical experiences of interoperable payments schemes such as VISA and MasterCard illustrate that interoperability can contribute to an exponential increase in transactions. A Moody's study on the effects of increased card usage (transaction volumes) suggests that a 1 percent increase in card usage translated to an average GDP growth of 0.24 percent across a sample of 51 developed and emerging countries[7].

However, interoperability is not without risks as it creates complexities at the technical, commercial and operational levels that need to be managed jointly by the participants. This is managed by ensuring that all participants adhere to the same standards to maintain the integrity of the system. Also, if imposed prematurely – in the early stages of business development or channel expansion - interoperability can dampen investment. It is more suitable for a market that has already reached scale.

In this study, we focus on the business or operating rules that govern interoperable transactions as opposed to the technical standards and infrastructure that facilitate the processing of interoperable transactions. Effective interoperability requires industry to come together and agree to common technical and other relevant standards, or to incorporate international MFS interoperability technical standards and operating rules so that the solution can be applied industry-wide, rather than through bilateral agreements between different operators. This implies a process of reaching agreement among industry players who have competing interests. The purpose of this study is to describe the process followed by the Tanzania MFS industry in reaching agreement on interoperating. Readers interested in learning more about the rationale, benefits and effects of interoperability may refer to the list of resources referenced throughout this study.

4 http://www.gsma.com/digitalcommerce/mobile-money-interoperability/a2a-interoperability

5 Bankable Frontier Associates. (2012). Interoperability and the Pathways towards Inclusive Retail Payments in Pakistan. CGAP: Washington, DC

6 Guadamillas, M. (2008). Balancing Cooperation and Competition in Retail Payments Systems: Lessons from Latin America Case Studies. World Bank: Washington, DC

7 Zandi, M & Singh, V. (2010). The Impact of Electronic Payments on Economic Growth. Moody's Economy. Obtained from: http://betterthancash.org/wp-content/uploads/2012/09/Moodys-WhitePaper-March-2010-Cards-contribute-to-GDP.pdf

WHY TANZANIA?

Few markets contain the perfect conditions for pursuing MFS interoperability, but there was strong consensus among stakeholders in Tanzania that the following contextual advantages favored the process:

1. MARKET DEMAND

As early as 2011, the Bank of Tanzania and some mobile network operators observed that MFS users were resorting to alternatives to direct wallet-to-wallet transfers, such as managing multiple MFS accounts and making cross-carrier payment via vouchers[8]. These behaviors suggested that there was demand for cross-network payments. This hypothesis was tested and supported by market research undertaken during the project.

2. MARKET MATURITY AND HIGH MFS PENETRATION

There were clear indications that the MFS market was nearing saturation from a customer acquisition perspective although volumes and values remained high in absolute terms. In addition, market awareness and usage of MFS product was quite high. By 2013, half of all Tanzanian adults had used mobile financial services (FSDT, 2013).

Table 1: Bank of Tanzania Statistics on Mobile Payments

MOBILE PAYMENT SYSTEMS (MOBILE FINANCIAL SERVICES)	2008	2009	2010	2011	2012	2013
Number of registered accounts	112,000	4,192,683	10,663,623	21,184,808	26,871,176	31,830,289
Volume	408,216	3,272,422	18,430,256	134,922,457	546,732,134	1,005,113,297
Value (TZS Millions)	25,208.00	158,538.00	1,006,430.00	5,563,281.00	17,407,725.74	28,852,294.02
Number of agents	2,757	14,469	29,095	83,795	97,613	153,369
Average number of transactions per customer per year	3.64	0.78	1.73	6.37	20.35	31.58
Average transactions value (TZS)	61,751.62	48,446.69	54,607.49	41,233.17	31,839.59	28,706
Average value per customer (TZS)	225,071.43	37,813.02	94,379.74	262,607.10	647,821.51	906,441.47

[8] Electronic voucher payments are a method for conducting one-time payment transfers across carriers. The recipient receives a unique PIN code via mobile phone, often paired with a one-time password shared directly by the sender to the recipient. The recipient visits a MFS agent for the sender's network and shares the PIN and password to receive the funds. In the case of Tanzania the cost of this transaction was approximately six times greater than a typical on-network transaction.

3. BALANCED MARKET

The Tanzanian mobile payments market is more balanced in terms of market share between MFS providers than other East African markets. In 2013, mobile money market share of registered customers for the leading operator in Tanzania was 53 percent[9], as opposed to 74 percent in Kenya[10] (Communications Authority of Kenya, 2014). There is a healthy competitive environment and broad customer awareness in mobile payments as a tested and proven service. For the MFS interoperability process, this meant that there was relative parity in negotiating power between market actors and greater value in interoperating for both customers and providers due to the potential number of connections.

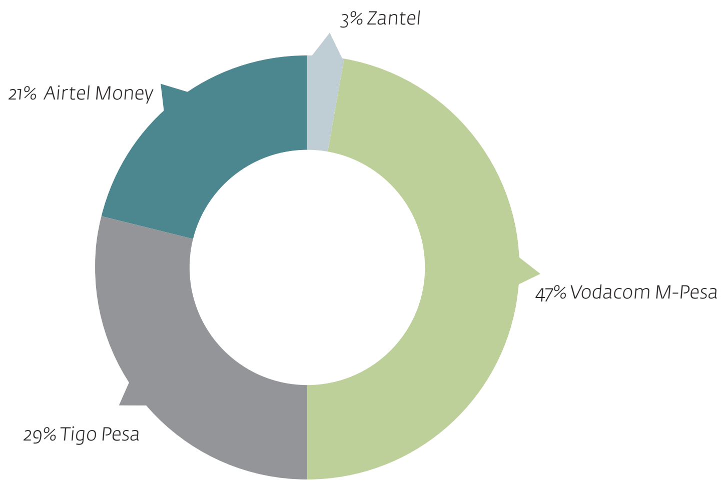

Figure 1: Tanzania Mobile Money Market Share (Active Subscribers, Dec 2014)[11]

4. SUPPORTIVE REGULATORY ENVIRONMENT.

The consensus of stakeholders is that Bank of Tanzania is a progressive institution that regards itself as an enabling agency rather than an entity that dictates how markets should organize themselves. It generally embraces a 'Test 'n Learn' regulatory philosophy to allow innovation to enter the market. In the MFS interoperability process, BoT has been clear that it does not see its role as dictating how interoperability schemes should be defined or what sort of technical architecture must be in place, but rather to support the process through the setting of overarching objectives, mitigate systemic risk and champion consumer protection. Through frequent communication and transparency with the industry, BoT has successfully fostered a positive environment where the MFS industry is encouraged to take the lead within regulatory parameters. This approach has helped to foster the second largest mobile money market in the world.

9 According to December 2013 infographic by Simone di Castri and Lara Gidvani (GSMA). Obtained from: http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2014/03/Tanzania-Mobile-Money-infographic-GSMA-MMU.pdf

10 According to June 2014 sector data compiled by the Communications Authority of Kenya. Obtained from: http://ca.go.ke/images/downloads/STATISTICS/Sector%20Statistics%20Report%20Q1%202014-2015.pdf

11 Source: Bank of Tanzania, 2015

5. MFS PROVIDER DEMAND

Perhaps the greatest indicator of market maturity was that the earliest demands for interoperability came from the MFS industry itself. Tigo, Tanzania's second largest operator by MFS subscribers and third largest operator on voice, was a vocal proponent of interoperability and was actively promoting the concept to internal, regional, and corporate decision makers, market counterparts, and at public presentations starting in early 2012.

Though fundamental, market conditions alone are often not enough. In Tanzania's case there was latent demand for interoperability from both the supply and demand side, but potential competitive pressures and a lack of trust between operators had held the process back. A catalyst was needed to create an enabling environment.

BRINGING INDUSTRY TOGETHER

In December 2012, after earlier informal inquiries to gauge market interest, an IFC team visited Tanzania to assess stakeholder willingness to develop a joint solution to MFS interoperability with IFC acting as the independent facilitator of an industry-based initiative. IFC, a member of the World Bank Group, is involved in mobile payments through investments and technical support to banks, mobile network operators, microfinance institutions and other payment services providers, in order to further financial inclusion. BoT endorsed IFC as a facilitator and convener of expertise in a process owned by Tanzania's MFS industry. For BoT, IFC's role as an independent facilitator served not only to arbitrate among industry competitors, but also relieved the central bank of the risk of having to choose sides among opposing industry views if it were to facilitate discussions itself. In the proposed model, industry could work out a solution for itself and IFC could arbitrate among competing views and eventually present the combined view of industry to BoT for consideration. Most important to BoT, however, was that industry be vested in the process and own the outcomes. To achieve this, the IFC team visited and engaged with MFS providers and supporting banks over a nine month period, from November 2012 to August 2013. The objective at that stage was not about the benefits of interoperability or a request to implement interoperability, but rather to create a group that would help define what MFS interoperability might look like in Tanzania.

Four MNO providers and two banks that have integrations with these providers agreed to participate and signed a non-binding Memorandum of Understanding. The spirit of the MoU was that participants to this initiative would work towards a constructive solution for interoperability that would benefit the individual providers as well as the broader market. Expectations were set that the process would not cover implementation, only the formulation of rules and the agreement of a business model. Finally, the memorandum specified that a formal project plan with clear objectives, deliverables, and timelines would be developed and shared with participants.

With the formal endorsement of BoT and commitment from industry through signed MoUs, the initiative was launched in September 2013.

Before describing the process employed, it is worth discussing the guiding principles that informed the approach. Theories abound on the right approach to kick start mobile payments interoperability. Regulators often believe that a mandatory regulatory intervention is necessary; technology vendors and solution providers favor technical switches as the solution; mobile network operators routinely interconnect and negotiate bilateral agreements on pricing and rules for voice. MFS providers often struggle with the strategic and business implications of the mysterious meaning of "interoperability" (i.e. will they gain or lose market share, will they potentially give control away, would they lose the investment they made in building their agent network, and many more).

In parallel markets, such as payment cards and mobile interconnection, interoperability had best been achieved when the relevant industry actors were at the forefront of defining and implementing interoperability. It has become evident that success is more likely where there is consensus and open participation, mutual respect, and one vote per party (irrespective of the size of the business), balanced with individual business considerations. Co-opetition is a term used to define this type of arrangement whereby competitors agree to cooperate on certain aspects of the business but compete aggressively on others. The card industry was successful in creating the card schemes, such as Visa and MasterCard, where banks compete on acquiring merchants and cardholders, but collaborate on other parts of the value chain such as processors and switches. Similarly, in the mobile telephony business, examples of collaboration such as voice interconnection exist. This co-opetition is a key guiding principle of successful interoperability initiatives and one that was applied throughout the process outlined in the next section.

As no equivalent MFS interoperable payment scheme existed, nor were there any recent examples of a successful market led solution, this was unchartered territory for the Tanzanian market.

An important aspect of MFS interoperability is to understand the differences between traditional card interoperability and traditional MNO interconnection. As described above, the card schemes defined sets of rules and operating procedures for members of the schemes. Of these, there are potentially three rules which have a significant impact on the way the card businesses have grown. The first one deals with the business model; in other words, "who pays whom?" In the cards industry, a four-party model[12] is prevalent for Point of Sale transactions and in this model; an acquiring bank (the merchant's bank) is expected to pay an issuing bank (the customer's bank) for the transaction. The second important aspect of this is that the card schemes independently set the rate, known as interchange, which the acquiring bank pays the issuing bank. There are examples where regulators intervene and set domestic rates but this is the exception rather than the norm. The third aspect which has a key influence is the Honor All Cards rule. This rule mandates that a merchant who signs up to accept scheme cards has to accept all cards from that scheme. For instance, a merchant cannot decline a Visa card from Bank A but accept a Visa card from Bank B. The overarching outcome of these rules mean that consumers and merchants have certainty and trust on the fact that their card will be accepted wherever they see merchant presence, and they will also have price certainty around pricing of the transaction.

MNOs have similar structures, but framed as interconnect, which is the technical ability to connect between different MNOs. Termination fees that may be charged for interconnecting various mobile bearers such as voice calls and SMS are the business model equivalent of card interchange. In the MNO environment, wholesale termination fees generally follow one of two models: Calling Party Pays and Bill and Keep. Domestically, one often finds that regulators determine the actual termination rates. Internationally, MNOs may have to individually, or as part of a group, negotiate bilateral pricing agreements with parties they want to interconnect with. In the international scenario, consumers therefore often do not have certainty, firstly around whether their mobile phone will connect when they roam, and secondly, may have to refer to complicated fees guides to figure out the price they will pay for various bearers.

MFS interoperability combines elements from the experiences of the cards and mobile industries. For instance, MFS operators may choose to negotiate prices bilaterally as in the mobile world, but may adopt a principle similar to the Honor All Cards rule to give customers the comfort that they will be served by any participating MFS network.

[12] The four parties in this model include the customer or cardholder, the issuing bank (the customer's bank), the merchant and the acquiring bank (the merchant's bank).

PROCESS, NOT PRESCRIPTION

With funding and technical support from the Bill and Melinda Gates Foundation and the Financial Sector Deepening Trust of Tanzania, IFC convened the first industry meeting in September 2013. The aim of the meeting was to outline proposed objectives and process and to garner industry feedback and consensus on the way forward. The process can be condensed into three phases – a preparation phase, an industry alignment phase and a rules drafting phase.

PHASE 1 – PREPARATION

The first phase involved market research and key stakeholder engagement to set the foundation for a successful industry engagement:

Competition review (September to November 2013)

In many markets, the competition authority does not allow competing entities to engage at certain levels, for instance, where it concerns end-user pricing. Therefore, before the interoperability initiative could even commence, it was important to establish those practices that would be considered anti-competitive by a competition authority. Tanzania does have a Competition Act (Fair Competition Act, 2003, Act No. 8 of 2003) and a Fair Competition Commission to implement the Act. Following discussions with the FCC and with industry participants, it was decided that all pricing should be negotiated bilaterally, instead of creating a multilateral pricing agreement equivalent to interchange in the card industry. This meant that pricing discussions would not be undertaken during industry meetings under the MFS interoperability initiative, as this would have been considered anti-competitive.

Review of payments infrastructure (September to November 2013)

A high-level review was conducted to understand the current infrastructure around interbank payments as they relate to Real Time Gross Settlements, Automated Teller Machine switches and Automated Clearing Houses. The review assisted in evaluating whether (and if) there was existing infrastructure or documentation that could be leveraged by the MFS interoperability initiative. At that stage, there was essentially one domestic card switch and a few mobile payments aggregators. In addition, BoT was in the process of commissioning an ACH project. Following this evaluation, it was determined that existing infrastructure would not complement the project at this stage and it would be better to work out a solution from the ground up.

Formation of a project team (September 2013 to December 2013)

As this was unchartered territory, there was a need for expertise on clearing and settlement, pricing and business models, as well as dispute processes. To this end, a team of functional specialists was recruited by IFC to provide advice to industry on the best ways to structure interparty rules. These included:

- An ACH agreement expert with significant operational experience designing and structuring ACH agreements. The ACH expert was tasked with structuring the interparty rules agreement, based on input from industry participants.
- A regulation expert with a background in payments regulation and payment scheme governance, and experience working with payment scheme participants to define and document governance requirements and dispute rules. The regulation expert worked with the industry to exhaustively identify and document potential disputes and advised on resolution mechanisms within the local regulatory framework.
- A finance expert with significant pricing and financial modelling skills in the banking, cards and/or telecommunications sectors. This expert was tasked with defining the business model for the proposed interparty transactions based on input from industry participants.

- A clearing and settlement expert with significant experience in the technical requirements of retail payments switching. This expert helped define clearing and settlement principles in the absence of a switch, and advised on best practice.

The expert team was overseen by a project management team that included an in-country project manager tasked with interfacing with the industry on a regular basis and supporting the process, an IFC coordinator tasked with ensuring the project was in line with donor and IFC objectives and a project lead, a senior expert with extensive experience in retail payments responsible for project implementation and team performance.

Regulatory analysis of MFS Interoperability (January to February 2014)

A legal and regulatory review was completed in February 2014 by the IFC-recruited regulation expert. The review was based on stakeholder interviews involving MFS providers, partner banks, and regulators and helped frame the context, structures, initiatives, and governing regulations for MFS interoperability in Tanzania. The report covered the roles and responsibilities of different regulators, laws that may have an effect on MFS interoperability such as AML/CFT laws, telecommunication laws, contract law, evidential laws, consumer protection laws and overall financial regulation, and the role of payment aggregators. Most importantly, the report catalogued every single potential regulation that could impact on MFS interoperability, especially in the absence of a national payment systems law. For instance, the Electronic Evidence Amendment Act.15 of 2007 provides for admissibility of electronic evidence in criminal proceedings. This has implications for dispute resolution processes arising from fraud or money laundering on an MFS platform in that electronic receipts may be used as evidence.

Market Demand Study (November 2013 to March 2014)

A market study was conducted by Bankable Frontier Associates to understand the strength of consumer and/or agent demand for interoperable MFS transactions. This included an understanding of consumer needs for certain transaction sets, current shortcomings in running proprietary operations, geographic distribution footprints of current offerings, concerns around trust and security and an understanding around pricing of services versus the perceived benefits of interoperability.

The outcome of the study further validated the perception on market demand for interoperability, especially for Person-to-Person payments. The surveys showed that 90 percent of customers would use mobile payments to send and receive money across networks if given the option. More than half of respondents were willing to pay to send money across networks. The surveys also revealed that many MFS customers (over 40 percent) had to visit multiple agents to cash in or cash out, a problem which interoperability could alleviate due to the possibility of improved agent liquidity management. Importantly, a large proportion of users said they would use mobile financial services more often if they could cash in and cash out at any agent.

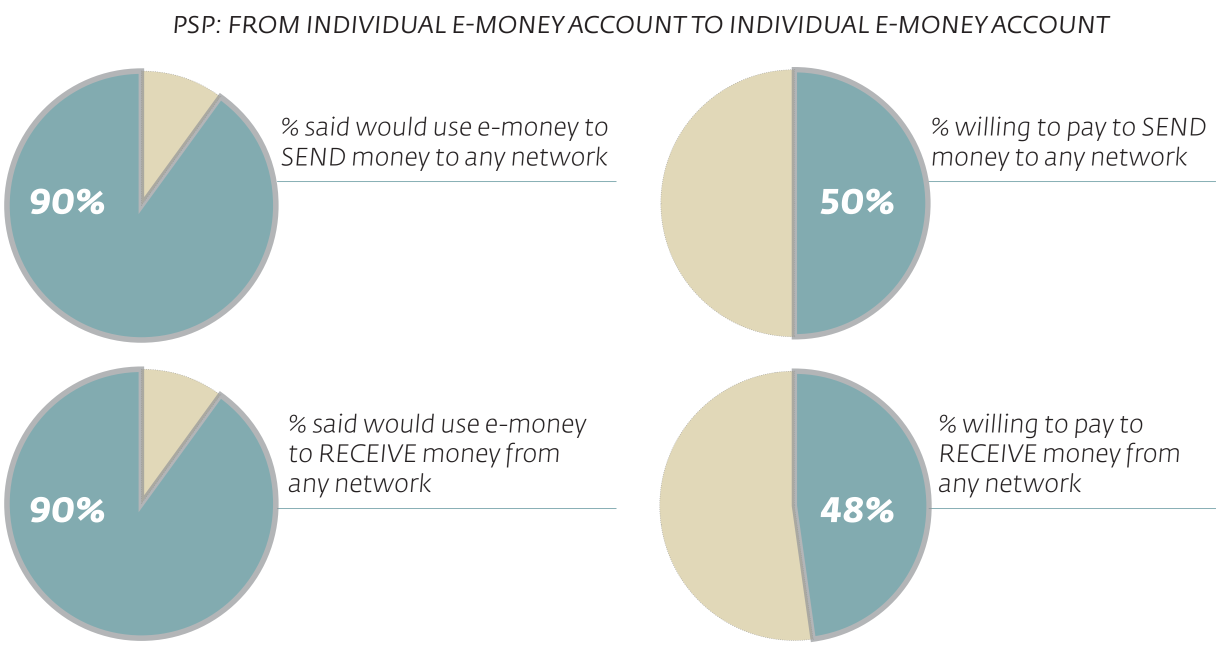

Figure 2: Market demand for interoperable P2P transactions

PHASE 2 – STAKEHOLDER ALIGNMENT

The second phase consisted of a series of workshops and training sessions to ensure that participants were speaking the same language and working towards a common objective.

Payments Education (February 2014 and July 2014)

As the participants included both banks and mobile network operators, there was a need for a common understanding of interoperability in financial systems as opposed to interoperability (or interconnectivity) in mobile telephony. These sessions were useful in educating participants on how MFS interoperability would fit within a broader national payments system framework.

Overall, two payments workshops were provided in February and July 2014 by the National Payment System Institute and the Head of the Payment Association of South Africa. These covered the structure of a national payments system, clearing and settlement principles, interchange and the regulatory framework for interoperability.

Project Definition Workshops (December 2013 to May 2014)

In order to consolidate industry alignment, one-day workshops were held on a monthly basis to define the project in more detail. During these workshops, the participants progressively tackled which use cases or transaction sets to prioritise and the major areas that the proposed rules would cover. Over the four months, and with the help of the expert team, participants actively and collectively addressed issues such as membership criteria (who can take part and why), participation rules (governance and voting rights), transaction handling (how would the technology interface), dispute resolution (how are customers protected and what processes do they follow), intra-intermediary compensation (the business or interchange model), risk (agreement around interparty risk and loss allocation), potential shared services (hardware or software, switch or no switch), cost sharing and decisions around common brands (or not).

Once agreement had been reached on any of the above-mentioned areas, this was documented by the functional experts and presented to the participants for review.

PHASE 3 – DRAFT RULES

In May 2014, the participants agreed to start by defining rules for wallet to wallet transfers, which had been chosen as the top priority use case. This, by definition, excluded bank participants, who remained engaged in meetings but were not actively involved in the discussions for this use case[13]. The remaining participants, namely the four mobile network operators, engaged in an iterative process over four months that involved monthly meetings facilitated by the IFC team. At each meeting, the participants would thoroughly review a draft of the rules prepared beforehand by the IFC expert team. Each participant would be allowed to comment and propose changes to the wording or to question the rationale for a previous decision. These were often lengthy and very detailed discussions that would typically end with a consensus vote. Once consensus was reached, the IFC expert team would revise the rules document. The draft would either be approved off-line or at the next industry meeting.

In September 2014, final agreement was reached for wallet-to-wallet operating rules. The rules covered participation criteria, clearing and settlement principles and dispute resolution. Although the rules also covered business models, it did not prescribe pricing. In order to comply with Competition policy, industry participants opted not to settle on a single, multilateral price for interoperable wallet to wallet transactions but to rather negotiate price one-on-one, through bilateral commercial agreements. Therefore, each provider wishing to become a final signatory to the rules document would first need to negotiate and sign a pricing agreement bilaterally (one-on-one) with another provider.

During this phase, content was provided not only by industry and the IFC expert team but also validated by the GSMA, a global industry organization for MNOs. The GSMA's input and participation assisted in ensuring that the rules reflected the objectives and interests of the participants and was robust enough to offer protections against potential reputational, business or consumer risks.

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13 It should be noted that some MNOs and banks have signed commercial agreements and established technical integrations that enable customers to transfer money between a mobile money wallet and a bank account.

LESSONS LEARNED

Tanzania's story of introducing interoperability standards offers a variety of lessons for other markets:

- *Allow industry to define the rules.* Mandating interoperability through regulation may create market distortions that dampen investment and buy-in, especially when imposed at an early stage. Instead, interoperable business and technical standards, as well as commercial terms should be allowed to evolve naturally in a mature, competitive market where both providers and consumers can derive additional value. As each market is different, interoperability should be resolved by the local industry participants who will ultimately profit and bear the weight of their decisions. Over the long term, one may find that many of the domestic solutions are very similar in nature and international interoperability could become a practical reality, particularly as operators tend to cover multiple markets.
- *Success requires an industry champion.* Tigo was a staunch supporter of interoperability from the beginning. While the IFC process created the conditions for a collaborative approach, Tigo's vision and persistence helped drive the overall agenda and ensured focus on the end objectives. An active and influential industry voice offsets possible claims that the agenda was not in the interests of industry, and compelled competitors to at least monitor and engage in discussion.
- *Identify an independent facilitator and/or neutral broker.* Ideally, this role should be undertaken by a party that has expertise in the given area but that has no commercial, political or regulatory interests in the process. In this scenario, IFC played the role of facilitator by providing expertise and as neutral broker in engaging with various stakeholders at various levels. IFC's engagement assured participants that the process would not be hijacked by a competitor's commercial agenda or by a regulatory mandate. Also, the independent expertise provided helped on issues (related to interoperability) needing resolution by providing practical advice based on best practice or on other industries' or countries' experiences.
- *Ensure everyone is speaking the same language.* In most cases, MFS interoperability discussions will involve actors who operate in similar environments, use similar words, but have different meanings and approaches. Making sure from the outset that everyone is using the same terminology and understands the models and motivations of others in the ecosystem will mitigate conflict and delays.
- *Have a strong in-country manager.* A persistent and diplomatic resource who can gain the confidence of all parties is critical. Deep knowledge of local conditions and players is needed to organize what is inevitably a large group of disparate interests and personalities.
- *Have a plan.* Interoperability will vary from market to market but the elements that need to be resolved, such as who gets to participate or how disputes will be handled remain largely the same. Starting with a clear outline of the issues to address and mapping an implementation plan to tackle these issues, will maintain the focus and overview needed to achieve the levels of detail necessary in an interparty payments agreement.
- *Don't expect to accomplish all at once.* Industry participants will all be at different stages of readiness for interoperability. Focusing first on the ground rules affords all an opportunity to contribute to the vision, leaving the timing of adoption to each participant's discretion. Start with achievable areas of common ground and prepare to compromise. History shows that interoperability in other sectors, such as in the cards industry, was not resolved overnight. Progress will be iterative as participants will be learning what works best for them along the way, as they make operational and system adjustments to manage risks. A case in point is the Tanzania MFS industry's initial determination to pursue bilateral clearing and settlement procedures that could evolve into some form of multilateral clearinghouse model over time as transaction volumes grow. A clear process and a common vision at the start can establish a path to follow in achieving a more ambitious goal in the long run.

WHAT NEXT?

The process of establishing interoperability in Tanzania is ongoing. As transactions grow, more participants join and use cases are added, and increased complexity will demand a robust governance structure and the need for operational efficiencies. At the time of this publication, work has been completed for wallet to wallet, cash in, and cash out.

Whilst actual implementation of the rules was not part of the original scope of the project, as of December 2014, bilateral pricing agreements have been signed between Tigo, Airtel and Zantel in accordance with the wallet to wallet interoperable rules. All have implemented and launched, with the Tigo and Airtel wallet to wallet service starting in September 2014 and the Tigo and Zantel service in December 2014. Vodacom has recently concluded its bilateral commercial negotiations with Tigo.

Finally, this case study focused on the collaborative process followed in Tanzania to reach agreement on its first interoperable use case. This process is the first step towards reaching a successful interoperability solution. The case study has not touched on what the actual solution looks like and the options considered. This will be covered in later materials to be published by the program, including a series of templates and toolkits with practical advice on how to draft the interparty rules document, clearing and settlement principles to consider, or the types of business models that could be adopted. IFC believes that these toolkits will assist interested parties in developing applicable solutions for other markets, provided of course the will is there to succeed, along with the grace to compromise

References

Bankable Frontier Associates. (2012). Interoperability and the Pathways towards Inclusive Retail Payments in Pakistan. CGAP: Washington, DC

Benson, C & Loftesness, S. (2012). Interoperability in Electronic Payments: Lessons and Opportunities. CGAP: Washington, DC

Camner, G. (2013). Implementing mobile money interoperability in Indonesia. GSMA: London

Guadamillas, M. (2008). Balancing Cooperation and Competition in Retail Payments Systems: Lessons from Latin America Case Studies. World Bank: Washington, DC. Obtained from http://siteresources.worldbank.org/EXTPAYMENTREMMITTANCE/Resources/BalancingCooperationCompetitionRetailPaymentSystems.pdf

Jenkins, B. (2008). Developing Mobile Money Ecosystems. IFC: Washington, DC. Obtained from http://www.hks.harvard.edu/m-rcbg/papers/jenkins_mobile_money_summer_008.pdf

Zandi, M & Singh, V. (2010). The Impact of Electronic Payments on Economic Growth. Moody's Economy. Obtained from: http://betterthancash.org/wp-content/uploads/2012/09/Moodys-WhitePaper-March-2010-Cards-contribute-to-GDP.pdf

Hock, D. (2000). Birth of the Chaordic Age.

Acronyms

MFS	Mobile Financial Services
BoT	Bank of Tanzania
MoU	Memorandum of Understanding
POS	Point of Sale
HAC	Honor All Cards
CPP	Calling Party Pays
BAK	Bill and Keep
FCC	Fair Competition Commission
RTGS	Real Time Gross Settlement
ACH	Automated Clearing House
ATM	Automated Teller Machine
BFA	Bankable Frontier Associates
EEAA	Electronic Evidence Amendment Act
P2P	Person to Person
NPS-I	National Payment System Institute
PASA	Payment Association of South Africa

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2015

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