Policy brief
36404 | February 2017

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Interoperability of mobile money

International experience and recommendations for Mozambique

In brief

- Interoperability – the ability for mobile money operators to interconnect to each other and to the banking system – is expected to offer benefits to consumers and the market.
- The introduction of interoperability between mobile money operators has been varied across developing countries.
- In Mozambique, there is no interoperability between mobile money providers, but partial interoperability between the latter and commercial banks is emerging.
- This brief presents several recommendations for the Bank of Mozambique to encourage mobile money uptake and introduce clearer rules and regulations in the market.
- It concludes that mandating interoperability in Mozambique at this stage is risky

This project is funded by IGC Mozambique

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Mobile money and interoperability

The introduction of mobile money is revolutionising the financial sector of many developing countries. First created as a means to facilitate money transfers in Kenya, it is transforming into an alternative to the formal banking system, which has remained relatively closed to the poor, while mobile money has the potential of reaching the entire population.

Several factors pertaining to each country will determine whether the reach of mobile money will live up to expectations. Foremost is the local culture and whether the population has an actual need for a mobile money solution. The two extremes in this respect are given by Kenya, where M-Pesa arose from an improvised airtime-as-money remittance scheme invented by Safaricom's customers, and South Africa, where the number of formal bank accounts is so high that mobile money never took off, leading to the decision by both M-Pesa and MTN to close their operations in 2016.

A second factor is the attractiveness of the mobile money solutions. This includes pricing and possible related services (international transfers, merchant payments, saving, loans, and insurance), but it also depends on the size of the network of people that mobile money customers can transfer money to and receive from. This network size increases substantially if different mobile money operators are interconnected to each other and to the banking system, which is called interoperability.

Challenges to interoperability

While interoperability is expected to offer benefits to consumers and at the market level, its introduction faces several challenges:

- First, creating interoperability requires defining and enforcing a common set of rules and standards, both in the technical and legal realm. A set of clear rules is essential to create trust in the mobile money network. At the same time, care should be taken to leave the necessary flexibility so that new technological developments can be taken into account, both at the design stage and later at the operating stage.
- Firms with a strong first-mover advantage, due to an early start and significant investments in rolling out their agent network, are understandably reluctant in opening their network of customers and agents to smaller competitors, as this reduces their competitive advantage.
- Competition policy concerns must be balanced with property rights (investments in platform development and agent network) and entrants' incentives to invest. This is a difficult balance to strike, similar to concerns in many other regulated markets. Agents need recruiting, training, and branding – all of it is costly, and investments are made to gain competitive advantage. Imposing interoperability should not destroy incentives to invest in agent networks.

Interoperability agreements and schemes

The GSMA, a trade body representing the interests of mobile operators worldwide, has adopted as one of its policy priorities to help augment interoperability in the mobile money sector and launched a specific program with this aim. The GSMA clearly attempts to distribute knowledge and capabilities that make the adoption of interoperability more palpable to hesitating operators. Shortening the path to agreements between operators is an important element of this. These efforts complement national initiatives and will hopefully be useful in helping them.

Below we list the main country experiences concerning the introduction of interoperability between mobile money operators. Sources and more detail are available in the main report.

- At the end of 2012, the central bank of Nigeria mandated that all mobile money operators had to interconnect to a national switch. Seemingly this order was not put into practice.
- In 2013, interoperability was implemented in Indonesia, based on an agreement negotiated between three of the major operators.
- In 2014, operators in Pakistan, Sri Lanka, and Tanzania interconnected their mobile money services. Initial data from Tanzania suggests that interoperability can boost transaction volumes. In Pakistan, six out of seven mobile money operators are connected to a national switch, which allows them to route payments to each other and to bank accounts.
- In 2015, new A2A (account-to-account) agreements were made in Madagascar, Rwanda, and Thailand. Providers in the Philippines have been preparing to launch interoperability in 2016, after having run pilot schemes in 2015. Additionally, mobile money services in Bolivia, Peru, and Mexico—which are already interoperable with the banking sector—are on their way to full A2A interoperability.
- In Peru, a group of more than 30 e-money issuers has launched an open and interoperable e-money platform. This multitenant, interoperable, financial industry-led scheme is described as the first of its kind, and is based on an initiative of the Association of Banks (ASBANC).
- Bangladesh also has an interoperability arrangement. It is provided via a third-party platform that mobile money operators can choose to interconnect with.
- Mobile operators in Paraguay are exploring interoperability of their mobile money services, while in Ecuador the central government is the only issuer of e-money, as established by a legal framework issued in 2014.
- The central bank of Mexico (Banxico) established its inter-bank payments system (SPEI, or Sistema de Pagos Electrónicos Interbancarios), created in 2004 for the formal financial sector as the de facto clearing and settlement mechanism for low-value transactions, including mobile money. It mandated the use of SPEI to settle payments among mobile payments providers, whether directly or through a connected clearing house.

- In Ghana, interoperability has been mandated since 2008 but never took off. This imposition was repealed in 2015. The central bank announced in September 2016 that it initiated a project to implement an interoperable mobile money payment infrastructure and that it is in conversation with stakeholders about its implementation.

Mobile money in Mozambique

Access to formal financial services is low in Mozambique: according to the Finscope Consumer Survey of 2014, only 24% of adults in urban areas have access to formal financial services, and even fewer in rural areas. The most typical mode of access to mobile money in these regions is immediate cash-out at an agent, either because only cash tends to be accepted in shops, or because mobile wallets are not seen as a means to store money.

Mobile money was launched in Mozambique in late 2011, when the mobile operator mcel introduced its mobile money service Carteira Móvel (branded mKesh). Vodacom introduced M-Pesa in May 2013. By October 2014, these two networks together had about 500,000 clients. According to information provided by mKesh in March 2016, their network had above 2 million active users, while m-Pesa had about 1 million active users. On the other hand, according to other sources, in March 2016 out of 3,135,000 registered mKesh users (of which 475,000 with PIN), only 60,000 were active (at least one transaction per month). In other words, these numbers are very unreliable or depend strongly on what is meant by “active users”.

According to information provided by market players, while mKesh has more clients, these do not keep e-wallets but rather tend to cash out money balances. At M-Pesa, on the other hand, clients are actively encouraged to maintain e-wallets. Thus the two mobile money operators’ business models seem to differ. The agent network of M-Pesa is also significantly more developed than that of mKesh (more than 12,000 agents for M-Pesa and about 4,000 for mKesh).

At present, mobile operators see mobile money as a way to capture more clients and are therefore not very interested in interoperability, even if in the medium-run it would be better for all operators. In other words, the mobile money operators have not yet reached a mature state of development where interoperability becomes a growth factor rather than a distraction.

The third mobile operator, Movitel, entered in 2010, concentrating on rural areas, and intends to launch a mobile money service in early 2017. This mobile money service will be provided by its subsidiary m-mola under the brand name e-mola.

Interbancos/Ponto24 was a banking and ATM/POS network of banks that was founded before 2004 and until recently comprised 11 banks (BCI, FNB Moçambique, Moza Banco, Banco Único, BTM, Standard Bank, CPC, Capital Bank, Banco Oportunidade, Socremo e Tchuma, but not Millennium BIM which still has a separate network). The Interbancos network offers ATM and POS access via Ponto24 and VISA cards, internet (NET.24) and mobile (MOBILE.24) banking services.

Some large banks had developed their own payment networks and had little interest in spending time and money on participating in Interbancos. Therefore, the Bank of Mozambique founded SIMO (Sociedade Interbancária de Moçambique) in 2011, with the aim to provide a national switch for the formal banking system. Banks invested and joined from 2012, but development was slow. There was no unanimity concerning the benefits of SIMO, as some banks saw their own payment infrastructure as a competitive differentiator and investment in SIMO as disturbing their own investment plans.

A solution to this issue was found in mid-2015 when SIMO contracted with Interbancos to provide the infrastructure and services for the national switch. At the end of 2016, the network does not yet have the capability to clear mobile money transactions, nor the capacity to handle the additional traffic that would result from Millennium BIM (which has the largest proprietary ATM network) joining in. Additional investment will occur, with financing from the German KfW, but the timeframe for SIMO's completion is unclear.

Both MKesh and M-Pesa have had a link with Interbancos since 2012, which allows their customers to withdraw money at ATMs without having a banking card. In 2014, mcel and Mozabanco entered a partnership to interconnect their banking and mobile money services (Jornal de Negócios, 2014), but it had not yet been launched by the end of 2016 (interview with mKesh). A similar agreement between M-Pesa and Standard Bank for two-way transfers between bank and mobile accounts was made in August 2016, and M-Pesa is looking for further agreements with other banks.

Furthermore, commercial banks have launched their own platform of "banking wallets" (confusingly also called "Carteira Móvel"). These have some features similar to mobile wallets, i.e. money transfers to other clients at the same bank or at other banks in the Carteira Móvel network, or to mobile phone numbers not yet associated with the network, withdrawals at ATMs, and do not give access to banking cards. These banking wallets are loaded via transfers from bank accounts and from other users. While they can be accessed via mobile networks, clients cannot use the mobile operators' agent networks for operations.

No interoperability regulation existed in 2015. At present, there is no interoperability between mobile money providers, but partial interoperability between the latter and commercial banks is emerging. It can be expected that more bilateral agreements of this type will be made in the near future, as long as both sides see the mutual benefits.

Agent networks are no longer exclusive, in the sense that each agent can represent multiple mobile money operators via separate float accounts. According to mKesh, it opened its agent network, giving up on exclusivity, in order to follow market demands, while the Central Bank states it has imposed the end of exclusivity.

Recently, the Bank of Mozambique relaxed KYC regulations to make opening accounts easier, for restricted types of service. Clients can now register with a single form at their mobile operator and the corresponding mobile money network, which makes registration much simpler (INCM).

In July 2016, Mozambique launched its Financial Inclusion Strategy, with the aim to increase access to financial services from 24% to 60% of the population by 2022. On the other hand, international mobile money transfers are not yet possible. FSDMoç expects that international remittances could significantly increase the liquidity of the mobile money system.

Recommendations

We conclude with the following recommendations:

- The Bank of Mozambique should identify the demand-side factors that lead to low mobile money uptake and address these before intervening in the market.
- The Bank should help to define clear rules and commit to a path of action, to create trust, regulatory certainty, and a firm basis for operators' business plans.
- The Bank should support the speedy completion of SIMO, the national switch under development.
- The Bank should play an active role in encouraging agreements between mobile money operators, especially while the market is immature.
- Mandating interoperability at this stage is risky, because it risks undermining competition for growth and the necessary investments.
- A mix of encouragement of more symmetric investment and possibility of further action if interoperability does not appear in a more mature market might provide the right incentives to all market participants.