MOBILE FINANCIAL SERVICES AND REGULATION IN KENYA

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Abstract

The provision of Mobile Financial Services (MFS) in Kenya was pioneered by the leading Mobile Network Operator (MNO), Safaricom Ltd through the provision of person–to-person money transfer on the M-pesa platform in 2007, targeting the low end unbanked customers. MFS has since been expanded to incorporate other transactions including person-to-business (payment of bills, shopping), business-to-business, credit and savings services, buying and transferring of airtime among others.

This paper examines the concerns in Mobile Financial Services (MFS) in regard to regulation in Kenya and attempts to address them by giving suggestions that are geared towards minimizing exposure of consumers. MFS being a fast changing services because of the technological advancement, there is a danger of the legislative framework not evolving as fast which brings the questions of whether the regulators have the technical capacity and competence to regulate effectively. Concerns in MFS regulation in Kenya include interoperability in view of a dominant MNO, and transparency in terms of costing of the services. MNOs also play a double role of being the providers of the access channel especially USSD and also as competitors of other providers of mobile payments.

To mitigate against the highlighted concerns, the regulators have put in place short term and long term measures. The short term measures include the implementation of cooperation framework amongst the regulators and moral suasion. In the long-term, it is envisaged that a specialized agency to regulate the sector, the Financial Services Authority, will be formed through the enactment of the relevant legislation.

A. Introduction

One of the innovations that have emerged from the various ICT convergence processes and models is the convergence of mobile telecoms and financial services resulting in the provision of 'mobile financial services' by mobile network operators.

In part because of the novelty of the field, there is no official or internationally accepted definition of Mobile financial services. However, 'mobile financial services' is commonly used as an umbrella term to describe any financial service that is provided using a mobile device.

Mobile money is sometimes used as a substitute, although some use this term more narrowly to refer to the underlying source of value for mobile payments.

This broad definition can be further delineated:

- **Mobile banking (m-banking)** is the use of a mobile device primarily as a channel to conduct transactions from one or more bank accounts. These transactions may include payments from one bank account to other bank accounts. Mobile banking services typically offer a range of informational functions as well, such as balance enquiries, simplified statements, transaction notifications, or account alerts. Mobile banking is a subset of electronic banking (e-banking), which includes Internet banking and the use of non-mobile channels such as ATMs and Point of Sale devices.

- **Mobile payment (m-payment)** is the use of a mobile device to make a payment. M-payment may involve creating a new instrument, such as e-money, to serve as the source from which and to which value is transferred. However, m-payment may be made using an existing instrument or store of value such as a bank account, although the term is sometimes used to describe only those payments that are not from a bank account. There are a variety of types of mobile payments, including:

    i. **Person-to-person (P2P):** also known as a mobile money transfer or mobile remittances between persons.
    ii. **Person-to-business (P2B)**: the payment of bills, goods, and services, and purchase of airtime. The reverse, Business-to-person (B2P) occurs when businesses pay people (for example, in wages or for goods delivered) and is broadly referred to as m-commerce.
    iii. **Business-to-Business (B2B**): entails transactions between businesses, such as between a manufacturer and a wholesaler, or between a wholesaler and a retailer conducted on a mobile platform.

MFS can be described further under the following models;

a. Bank Model

This is whereby a bank, or any other licensed financial services institution such a micro-finance institution (MFI), is the main institution licensed to provide mobile financial services under the Banking Act. This model is distinguished by the fact that clients, or recipients of the mobile financial service, are required by the Central Bank of Kenya Prudential Guidelines to have a bank account (Okonjo, 2013)

The mobile financial services provided are mobile banking services such as payments, account balance inquiry, and monetary transfers between accounts. These services are accessed through the Internet or through a mobile phone based system where the mobile phone company provides menu based communications services in partnership with a bank. However, neither the mobile network operator nor the cell phone company, is involved in any underlying financial transactions, all of which pass through the client's bank account and for systems will make it significantly easier to exercise fiduciary oversight over the payment process.

b. Mobile Network Operator Model

Under this model, a mobile service provider transforms its wireless network messaging functionality into a Subscriber Identification Module (SIM) based platform for providing mobile financial services as Value Added Services (VAS) under its telecommunications license. The SIM based service enables its subscribers to transfer funds and make payments in the form of electronic money to each other, which transactions are settled through the MNO's established agent network.

In contrast to mobile banking services, the payment transactions occur entirely within the MNO's network, and do not require the subscriber to have a bank account. The funds in transit - paid in by the remitter but not yet withdrawn by the recipient, are in principle on deposit in a separate trust account with one or more banks and are therefore not deposits in the context of banking business.

MNOs make use of the banking facilities, in the form of trust accounts. This requirement is part of the authorization and licensing conditions spelt out by the Central Bank of Kenya. The MNO only executes client payment instructions and does not perform the credit assessment and a bank's risk management role. The Mobile network operator model of mobile financial services is different from the mobile banking model in three significant aspects.

i. Cash exchanged for electronic value are not repaid and remains in control of the customer at all times. To offer M-PESA services the agent must deposit a float of cash upfront in an M-PESA account, held by a local bank. As such there is no credit risk to either the customer or the mobile network operator.
ii. Customer funds are not on-lent in the pursuit of other business or interest income. All funds are to be maintained in a pooled trust account at a reputable bank, and cannot be accessed by the mobile network operator to fund its business. Hence, there is no intermediation, which is a key part of the deposit taking definition.

iii. No interest is paid on customer deposits, or received by the mobile network operator on the float. This is a further factor which indicates that the e-value created is not in fact a deposit.

Therefore, these services arguably do not constitute banking business as defined under Section 2 of the Banking Act. Therefore, they do not require the extent of regulatory oversight required for deposits that are used in banking. The depository bank has no involvement in or responsibility for payments through the MNO system. Mobile banking has relatively high costs of a bank account opening (minimum balance, service charges, full Know-Your-Customer (KYC) requirements, and travel time to a branch), compared to the easy, low cost and increasingly universal access to cell phone services (Okonji, 2013).

The MNO model is therefore highly effective in bringing informal cash transactions into a form of formal financial system, thereby expanding access to financial services.

c. Hybrid Model

Since the inception of mobile financial services by MNOs, there has been increased competition between the banks and MNOs in the provision of mobile banking and mobile money transfer services respectively. In addition, there has also been competition within the banking industry, and also between the mobile network operators on the other hand.

This has resulted in innovative integration of mobile banking and mobile money transfer and payment services, so as to add value to the services offered by banks to their banking customers, and MNOs to their subscribers. This integration has resulted onto the evolution of a hybrid type of mobile financial service model. In this model, banks, MNOs and/or other third parties partner to offer mobile financial services that combine mobile banking services and mobile money transfer services. The various types of integration are aimed at fulfilling certain business objectives.

The strategic objectives of mobile network operators includes churn reductions and, to a lesser degree, increase in Average Revenue per User (ARPU), customer acquisition and market differentiation. On the other hand, the banks' main motives are outreach expansion, customer acquisition, cost reduction and traffic diversion from bank branches.

This integration has resulted into the evolution of a hybrid type of mobile financial service model. In this model, banks, MNOs and/or other third parties partner to offer mobile financial services that combine mobile banking services and mobile money transfer services. Such hybrid models are mobile network operator based money transfer services that handle payments internally with cash in/out through the MNO's agent network, yet link to formal banking services including savings and loans such as Safaricom's M-KOPA and M-Shwari, and insurance.

This is done in partnership with a regulated financial institution by enabling communications with the bank and transfers between the user's SIM-based mobile money transfer account (e-wallet) and accounts at the bank. Most mobile financial services are hybrid, drawing on the relative strengths of the partners involved.

In Kenya, mobile financial services including M-PESA, Airtel Money, and Orange Money, offered by mobile telecommunications companies were originally under the pure (MNO) model. However, increased integration of some of these mobile money services with mobile banking services has created hybrid models.

B. Overview of the current regulation status

Kenya has made significant strides in recent years in extending mobile financial services to its populace. This has been on the back of rapid expansion of banks across the country (particularly in rural areas) and the transformational introduction of mobile money transfer services in 2007. However the battle for financial inclusion remains far from won and Kenyan policymakers and regulators continue to develop and implement innovative models to expand financial inclusion. To this end, the agent banking model was rolled out in 2010 to enable banks to contract with third party agents just as telecommunications companies had been doing since 2007.

In 2010, with an eye to deepening these initiatives, the Central Bank issued guidelines to enable banks to offer a broad range of banking services through agents. This framework differs from that for payment agents, which is currently guided by requirements set by telecommunication companies.

Low access to financial services is attributed to lack of infrastructure, information and inadequate customer service associated with traditional banking models. This situation is prevalent in Kenya (and most developing states) since the vast majority of the population resides in rural areas.

One of the most significant initiatives in addressing access to financial services in Kenya has been the development of mobile-money transfer services. Safaricom's Kenya's leading mobile operator launched the M-Pesa in 2007. M-Pesa experienced viral growth in its first four years of existence gaining over 15 million subscribers and more than 20,000 agents. The introduction of mobile financial services has contributed to the more than doubling in the use of non-bank financial institutions from 7.5% in 2006 to 32.9% of the bankable population in 2013 (FinAccess, 2013). The attraction of mobile financial services such as M-Pesa is their extensive reach all over Kenya including in villages and slums (Klein, 2011).

The use of mobile telephones and related infrastructure to deliver basic financial services to the financially excluded poor in Kenya has therefore provided an unprecedented opportunity. This is due to the high levels of diffusion of mobile telephony – mobile penetration is estimated at over 80% of the Kenyan population.

The development and deployment of mobile financial services has also been boosted by the policy and legislative efforts of global financial and other institutions towards financial inclusion. For example, in 2009, the G-20 Leaders devoted to improving access to financial services for the poor. It consequently directed the establishment of a G-20 Financial Inclusion Experts Group (FIEG) to support the safe and sound spread of new modes of financial service delivery capable of reaching the poor.

The adoption of MFS has therefore promoted broader policy objectives by;

- Broadening access to financial services and promotion of wider formal financial inclusion.
- Promoting economic efficiency through reduced transaction costs.
- Providing a focal point to assess areas for development in the retail banking system e.g. partnerships and agency banking.
- Enhancing safety, security & efficiency of transactions.
- Positive impact on social & economic growth through creation of employment opportunities.

C. Regulatory Framework

Mobile money transactions have presented regulatory challenges that could potentially hinder maximum development benefits. This is because firstly, mobile money blurs the traditionally distinct and independent sectors of regulation (most notably, the telecommunications and financial banking sectors). It often involves an overlap between multiple ministries and Government agencies, thus adding to the complexity of oversight needed.

Secondly, due to the rapid growth in technological advancement, MNOs and other stakeholders are exploring emerging business opportunities like mobile banking. This in effect is changing the traditional business models and the financial landscape.

Thirdly, there is limited legislative and regulatory experience in other countries and regions to draw lessons from when drafting relevant legislation and regulations. As is the case in most other developing regions, national regulations have not kept pace with developments in the field. It is therefore imperative that regulators identify and address the gaps and potential overlaps between their existing legislative and regulatory frameworks.

The pertinent legislations that influence the operations of MFS within Kenya include

a. Central Bank of Kenya Act (enacted 1966, amended through 2009), creating the Central Bank of Kenya and defining its mandate.
b. Banking Act (enacted 1991, amended through 2010), regulating the activities of banking institutions within the financial sector in Kenya.
c. Guideline on Agent Banking (2010), providing for the appointment of agents to extend banking services within Kenya.
d. Draft Electronic Retail Transfers Regulation and Draft E-Money Regulation (stake holder consultations have been organized and comments to the draft are now being integrated), regulating electronic money issuance and exchange, as well as its transfer between different parties within Kenya.

e. The Kenya Information and Communications Act (enacted 1998, amended in 2010 and 2013), providing the mandate of Communications Authority of Kenya (CA) and a framework to regulate the information, communications, media, and broadcasting subsectors.
f. A range of Kenyan information and communications regulations made by the Minister in charge of Information and Communications in tandem with the CA to regulate various aspects of the communications sector that include consumer protection, competition, tariffs, numbering, inter-connection, quality of service, among others
g. The Kenyan Competition Act No. 12 of 2010 which includes which includes Consumer Welfare in its part IV. The act repealed the weaker Monopolies and Price Control Act. The Act also established the Competition Authority of Kenya as an independent agency.

Regulatory Questions that Kenya needs to ask for better growth in mobile financial services

a. **Enabling M-financial services**: How can regulators enable models of mobile financial services that expand financial inclusion and make the financial sector more efficient?
b. **Mobile payment instruments**: How should the issuance of new mobile payment instruments like e-money be regulated?
c. **Channel**: How should the use of the mobile phone as a channel be regulated?
d. **Consumer protection**: Do mobile financial services create new consumer protection and financial literacy challenges?
e. **Supervision**: How should mobile financial services be supervised?
f. I**nteroperability**: What are the implications of mandating interoperability and interconnection of mobile financial services

a. Enabling M-Financial Services

Enabling new models of financial services like mobile payments requires that regulators balance openness to experimentation and innovation with sufficient certainty about the legal framework that protects users and clearly assigns liabilities. Without openness, a new mobile service can become bogged down by restrictions that are applied to more traditional channels and business models.

Without certainty and clear regulatory frameworks, reputable providers are likely to be unwilling to commit the resources to launch and sustain deployments (Porteous, 2006). At the same time, clients might find offers from new entrants unreliable and therefore unattractive. Enablement must also provide adequate safeguards for consumers' interests, without which large-scale adoption is unlikely anyway (Lyman et al, 2008).

Enablement does not necessarily require a one-off approach, but rather a sequential progression. As the scale and reach of the market grows, so does the need for certainty and customer protection. In the early stages of a market, it is possible to allow more scope for experimentation. The Principles for Innovative Financial Inclusion issued in June 2010 by the G20 Financial Inclusion Experts group recognizes this by advocating a 'test and learn' approach by regulators rather than regulating in advance of market conditions.

b. Mobile Payment Instruments

The growth of mobile financial services has raised foundational policy questions for regulators of how to distinguish a 'payment' (mobile or not) from a 'deposit, and what differentiates the business of providing payments from that of deposit taking. This boundary questions are not new, but the spread of the mobile phone is necessitating greater clarity because it has enabled the creation and distribution of electronic payment instruments on a widespread scale, which was neither easy nor even possible in many places until recently

There is a clear trend towards creating legal certainty through guidance or new legislation that regulates e-money issuance. In Kenya, where oversight of non-bank e-money has been under general regulatory powers, have announced their intention to publish guidelines that may become regulations once an enabling payment law is in place.

c. Channel

Mobile channels are a subset of electronic channels available for financial services. The regulatory questions raised around the channel are therefore a subset of electronic banking transactions more generally.

Many of the risks associated with using mobile channels are the same as Internet banking with a PC or using a card at an ATM, but there are other risks that are unique.

One of the risks would be the relationship in the value chain for MNOs and financial institutions in that not only do MNOs compete with banks and other providers in the provision of MFS but also owns key communication infrastructure required to provide MFS. USSD has been identified as the channel of choice for MNOs.

Unstructured Supplementary Service device (USSD) is a communication channel controlled by Mobile Network Operators (MNO) which is critical to securely provide MFS on nearly all phones at a low cost. It enables customers to securely send instructions to MFS providers along with PIN for authentication while enabling the MFS provider to send responses to clients and confirmation of transactions.

MNOs therefore provide a critical infrastructure to competitors, for this reason, there is need to identify the following special issues regarding the supply of financial services through the mobile channel

- **Communication protocol risk**: the risk that arises when certain GSM bearer channels do not perform two-way authentication or allow for end-to-end encryption
- **Data storage risk**: the risk of unauthorized physical or logical access to transactional data stored at telecoms facilities or mobile devices
- **Availability and quality of service**: the risk of interruption or denial of service on mobile channels affecting the ability to transact (which is heightened when the mobile channel is the only transactional channel for a service)

d. Consumer Protection

A concern that touches on consumer protection is the transparency especially of the transaction costs. Section 56 (3) of the Competition Act No. 12 of 2010 requires that a consumer shall be entitled to be informed by a service provider of all the charges and fees intended to be imposed for the provision of a service.

Lack of sufficient transparency in the terms and conditions of products and services impacts competition in a market in several ways (Rafe and Phillip, 2014). When customers face significant impediments or costs in their search for alternatives, sellers may be able to set prices with only limited regard to competition, enabling firms to enjoy market power. When consumers face difficulties in comparing the offers available from different providers this can hinder new entrants ability to compete with dominant firms on price and quality of service.

Transparency of mobile money transfer costs

In Kenya there is a degree of price transparency at the point of cashing in and cashing out, as agents display tariff boards. However MNOs do not disclose the transaction costs for person-to-person payments either before or after the transaction is completed, either in the USSD session or in the confirmation SMS messages. In this instance consumers only seem to be able to figure these charges out by subtracting new balance from the balance in their previous confirmation SMS, then removing the amount transferred, to obtain the charge paid for the P2P transfer.

This makes it difficult to compare the total cost of sending and receiving money across mobile financial services providers, both impeding effective competition and raising potential consumer protection concerns. It can also create situations where outdated price information is kept in consumers' mind as the market price (Rafe and Phillip, 2014)

Transparency of USSD costs

There is also poor disclosure of the cost of accessing Value Added Services, such as bill pay and bank to wallet/wallet to bank transfers, via USSD. This is due to the low disclosure of both the charges paid by the third-party aggregators and financial service providers to the MNOs for access to the MNO's USSD infrastructure, as well as the costs they subsequently pass on to consumers for these Value Added Services (Rafe and Phillip, 2014).

Transparency of terms and conditions

As markets develop and move gradually from simple payments conducted via mobile, towards products like merchant payments, credit, savings and insurance, new issues around transparency will develop. For example Safaricom has launched M-Shwari, offering micro-loans and interest-paying savings accounts via the M-Pesa mobile money platform.

Upon opening an M-Shwari account the consumer is not informed of the interest rates and rollover charges of the loan directly, but is instead directed to review the Terms and Conditions on the CBA and Safaricom websites. Aside from the obvious effort that must be made to view these terms and conditions, this information will not be accessible to consumers without internet/data access or a smartphone, resulting in many consumers failing to understand the terms of their savings or loan product. Consumers do receive an SMS with some basic information immediately after accepting a loan, however this is only after entering a binding loan agreement, and the loan amount is not separated from the charges to make clear the finance costs, the breakdown of how much of this is the loan principal and how much the interest owed, nor the interest rate applied.

Customers may not understand the complexity of the contract signed, making it possible for them to face additional fees/services without being aware.

The policy interventions will therefore require that service providers;

- Use clear contracts that fully disclose all fees to be charged, tailored for various customer situations, including different languages and illiteracy
- Clearly post service charges at each agent's location. Disclosures reasonably comprehendible to all customer groups

e. Supervision

If mobile financial services can only be offered by already-regulated entities such as banks, then the supervision of the mobile channel involves extending existing procedures (such as e-banking supervision practices) to cover the features of mobile financial services discussed above.

Since technology is evolving fast in this area, understanding the operational risks arising from new channels, communication standards, and security protocols is an uphill task for regulators.

Whatever the appropriate scope and location for supervision of new instruments and channels, it is clear that financial regulators need expanded resources to train and build the capacity to oversee fast-moving technology. Electronic reporting and oversight may reduce the need for physical inspection but increase the need for specialist skills in the regulator.

f. Interoperability

Interoperability is the interconnection of mobile money services either between providers or with external parties. Consumers and providers benefit from the interoperability of MFS through;

i. Increased convenience as mobile money sent across networks can be received and stored in a mobile wallet seamlessly,
ii. Cost savings by reduction in the transaction fees,
iii. Unlimited choice for customers since they need not to favor an MNO because of their network coverage,
iv. Benefit of spreading the network effect as the number of transactions in an operable environment increase
v. Reduction of barriers to entry, and
vi. Agents enjoy increased income streams from the expanded consumer base

Despite the many advantages for all parties, interoperability has not yet come to fruition in Kenya. Concentrated market share across MFS providers may create both less demand for interoperability from consumers (network effects) and less willingness on the part of the dominant MNO to extend interoperability.

While it is possible for regulators to mandate interoperability, this may not be the best course of action and regulatory bodies can instead play a pivotal role in the mechanics of achieving interoperability (Rafe and Phillip, 2014). The National Payment System Act in Kenya requires that a payment service provider shall use systems capable of becoming interoperable with other payment systems in the country and internationally.

The specific policy interventions are:

- The National Payments System Act which requires that a payment system provider shall use systems capable of being interoperable with other payment systems in the country or internationally[1].
- Operationalization of a clearing house to make the MFS transactions real-time

D. Conclusions and Way forward

To ensure effective regulation that does not undermine innovations, it is the regulator's responsibility to ensure that any intervention aimed at breaking a monopoly or abusive dominant position does not harm the industry, create an unequal playing field for current market players, or negatively impact customers.

In this regard, the regulator have employed the short term measures that are aimed at mitigating the various risks. The short term measures include the development of cooperation frameworks with clear action plans to guide their implementation. Moral suasion is also being employed to persuade the players to interoperability. In the long term, a specialized agency to regulate the sector will be critical.

a. Co-operation framework

The three regulators has entered into cooperation arrangements through signing Memoranda of Understanding (MoU) whereby the agencies commit to work together and where a matter arises the most suited regulator is given a go ahead to intervene.

The Competition Authority of Kenya Signed a Memorandum of Understanding with the Central Bank of Kenya on 14th July, 2014. The Memorandum of Understanding between the Competition Authority of Kenya and Communications Authority of Kenya was drafted and is at a very advanced stage of being signed. However the two regulators are currently working together and sharing information on matters that have both competition and communication dimensions.

[1] See http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/NationalPaymentSystemsAct__No39of2011.pdf

The success of the cooperation amongst the players is dependent on the successful implementation of the MoUs. The regulators should therefore come up with clear action plans for the arrangements.

b. Moral Suasion

The biggest dilemma of regulators is when to intervene without being seen to be interrupting the market. The first best outcome for any market is for commercial agreements to emerge between MNOs and third parties for the provision of USSD. This would advance competition and the development of the MFS market without placing restrictions on MNOs.

To encourage such an outcome, regulators do attempt a lite touch moral suasion approach, communicating a preference for MNOs to provide access to USSD (together with reasoning for this preference). This approach has been employed by Central Bank of Kenya where the regulator had communicated similar preferences for other competition sensitive issues including interoperability in retail payments.

The other approach that can be employed by the regulators is the Dispute resolution mechanism (DRM) (CGAP, 2015). In markets where commercial agreements are not forthcoming, a coordinated DRM, whereby the telecommunication, financial regulator and the competition regulator jointly intervene, could be used to resolve access, price, and/or quality issues. This approach would allow the regulator(s) to understand the considerations of all stakeholders. This could give MNOs the opportunity to explain arguments for withholding access, including the potential impact that the provision of USSD at scale could have on an MNO's core telecommunications business. It could also give all parties a chance to communicate and detail their positions regarding USSD quality, pricing, and cost.

In the long run, the Kenyan Authorities can put in place the relevant legislation for the establishment of a specialized regulator, Financial Services Authority, which is to oversee all maters in regard to financial payments.

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