Mobile Money Association of India (MMAI) and GSMA Submission to the Reserve Bank of India's (RBI) Committee on Comprehensive Financial Services for Small Businesses and Low-Income Households

### Mobile Money: the Opportunity for India

POSITION PAPER, 13 November 2013











### **Executive summary**

The full potential of digital financial services in India has not yet been realised. Millions of people still lack a viable alternative to the cash economy and informal financial services, and mobile money represent a great opportunity for the country. For mobile network operators (MNOs), launching and scaling services for the unbanked has proved very challenging because of several regulatory barriers. The Mobile Money Association of India (MMAI) and the GSMA are submitting this position paper to the Reserve Bank of India (RBI) Committee on Comprehensive Financial Services for Small Businesses and Low-Income Households to provide evidence of the benefits and the business case for mobile money for MNOs. The paper also proposes a set of regulatory reforms that would clear the way for viable and sustainable mobile money deployments, driving financial inclusion, improving financial stability and integrity, protecting financial consumers, and guarding the financial system against the risks of the widespread use of cash.

Thanks to the attractive direct revenues and indirect benefits that financial services contribute to their core GSM business, Indian MNOs are well suited to building a viable and sustainable mobile money business and expanding, in a rapid and sound way, the range of services a customer can access. Banks face significant challenges in reaching unbanked and low-income populations, but in many markets, mobile money services from non-bank providers, particularly MNOs, are already the entry point for customers to make payments and transfers, to store money safely, and to access other financial services that banks and other financial institutions like insurance companies offer. Opening the playing field to MNOs is sparking competition and innovation in financial services.

The key tenets of enabling mobile money regulation are: a) allowing a business model that safeguards customer money stored in the system and preserves financial stability; b) proportional (risk-based) anti-money laundering and combating the financing of terrorism (AML/CFT) regulations and promoting tiered know-your-customer (KYC) procedures; and c) putting cost-effective regulatory solutions in place to set up and manage distribution networks and accelerate customer adoption.

In coordination with relevant authorities, the RBI can embrace the reforms outlined in this paper to enable innovation in mobile financial services and build a stable, inclusive, secure, and efficient financial sector. According to the MMAI and the GSMA, these reforms are necessary to:

- permit cash-out (withdrawal) at third party agents with reasonable transaction limits;
- harmonise the KYC requirements of the RBI and the Telecom Regulatory Authority of India (TRAI);
- improve Aadhaar-based KYC procedures:
- remove the requirement that banking correspondents need to be within a 30 km radius of a bank branch;
- harmonise transaction limits between mobile money accounts opened by non-banks and accounts opened by banks so they are at par when full customer due diligence (KYC) has been implemented;
- allow market-based pricing;
- amend the restriction to place the 'core portion' of an escrow account in a current interest-bearing account;
- enable mobile money providers to pay interest on value stored in an e-wallet; and
- remove the pre-approval requirement for wallet-to-wallet interoperability.

This set of reforms is discussed in detail in this paper. The MMAI and the GSMA also point out some of the factors to consider when evaluating alternative business models, and present a set of core principles for the mobile money industry that could guide providers in adopting responsible business practices aimed at mitigating and managing the risk of external and internal frauds cost-effectively and better protecting financial consumers.

### Contents

1.	Background	4
2.	Why MNOs can drive digital financial inclusion in India	5
	What is mobile money?	5
	Can mobile money drive financial inclusion?	5
	Does regulation play a critical role in the development of mobile money markets?	6
	Why are banks usually unsuccessful at developing mobile money services?	7
	Why are MNOs uniquely positioned to offer affordable mobile money services to the unbanked?	8
	From a commercial perspective, do Indian MNOs have the same comparative advantages and incentives to deli mobile money as in other successful markets?	
3.	Regulatory reforms to enable mobile money to achieve financial inclusion in India	11
	Permitting cash-out (withdrawal) at third party agents with reasonable transaction limits	11
	Harmonising the KYC requirements of the Reserve Bank of India and the Telecom Regulatory Authority of India	13
	Improving Aadhaar-based KYC procedures	13
	Removing the requirement that banking correspondents need to be within a 30 km radius of bank branch	14
	Harmonising transaction limits between mobile money accounts opened by non-bank and accounts opened by banks	14
	Allowing market-based pricing	15
	Amending the restriction to place the 'core portion' of an escrow account in a current interest-bearing account	15
	Enabling mobile money providers to pay interest on value stored in an e-wallet	16
	Removing the pre-approval requirement for wallet-to-wallet interoperability	16
4.	Mobile money: a sound, safe, and responsible industry	17
	Safeguarding customer money for a secure mobile money business model and a stable financial system	17
	Alternative business models for delivering mobile money services: commentary on the adoption of the "narrow banking" model	19
	Building a responsible industry	19
	nex 1: Industry position on the use of MNOs' customer data to establish the financial status and credit worthiness o viduals	
Enc	dnotes	21

The leading authors of this position paper are Simone di Castri and Brian Muthiora of the GSMA, with contributions from the mobile money teams at Aircel, Airtel, Idea Cellular, Reliance, Tata, Uninor, and Vodafone for the Mobile Money Association of India (MMAI).

### 1. Background

The Committee on Comprehensive Financial Services for Small Businesses and Low-Income Households (the Committee), chaired by Dr. Nachiket Mor, was appointed on 23 September 2013 by the Reserve Bank of India (RBI). The Committee's terms of reference are:

- 1. To frame a clear and detailed vision for financial inclusion and financial deepening in India.
- 2. To establish a set of design principles that will guide the development of institutional frameworks and regulation for achieving financial inclusion and financial deepening.
- To review existing strategies and develop new ones that address specific barriers to progress, and which encourage participants to work quickly towards achieving full financial inclusion and financial deepening, consistent with the design principles.
- 4. To develop a comprehensive monitoring framework to track the progress of financial inclusion and financial deepening efforts nationwide.
- 5. Any other related issue(s) the Committee may want to consider.

The Committee Chairman has invited the Mobile Money Association of India (MMAI) and the GSMA to make submissions regarding:

- the business case for mobile money from a mobile network operator (MNO) perspective; and
- the regulatory challenges and proposed interventions that would clear the way for sustainable mobile money deployments in India.

The MMAI enjoys the participation of the GSMA and seven MNOs: Aircel, Airtel, Idea Cellular, Reliance, Tata, Uninor, and Vodafone. These members wish to sincerely thank the Committee for its recognition and trust that the work of the Committee will lead to regulatory reforms that promote a thriving mobile money industry and greater financial inclusion in India. MMAI members are very supportive of a constructive dialogue with the RBI and other regulators in the digital financial inclusion sphere, and would welcome a formal mechanism for conducting periodic joint assessments of qualitative and quantitative information on the development of digital financial services in India. Such a mechanism would facilitate mutual learning and build greater cohesion and trust between the regulator and the industry.

The GSMA has consolidated the following submissions based on the input and consensus of MMAI members.

### 2. Why MNOs can drive digital financial inclusion in India

#### What is mobile money?

Mobile money is a *transformational* service that uses information and communication technologies (ICTs) and non-bank retail channels to extend the delivery of financial services to clients who cannot be reached profitably with traditional branch-based financial services. Typical examples of mobile money services are e-wallets that are used to make peer-to-peer (P2P) transfers and a range of payments, or to receive salary and government to person payments (G2P). The average value of a P2P transaction on a mobile money platform is USD 35 (Rs 2191).

The key characteristics of a mobile money service are:

- customers get money into and out of the service using a network of transactional agents that operate outside bank branches; and
- customers initiate transactions using an interface that is available on basic mobile handsets.

Although there is currently no standard regulatory definition of mobile money and electronic money (e-money) suitable for global use, countries that have developed their own definitions tend to echo several common elements. Mobile money is monetary value that is:1

- available to a user to conduct transactions through a mobile device;
- accepted as a means of payment by parties other than the issuer;
- issued on receipt of funds in an amount equal to the available monetary value;
- electronically recorded;
- mirrored by the value stored in an account(s) usually open in one (or more) bank(s); and
- redeemable for cash.

In jurisdictions where e-money has been defined in regulation or legislation, mobile money is a form of e-money.

#### Can mobile money drive financial inclusion?

Mobile money creates important changes in the lives of the poor. Relying solely on cash keeps many people excluded from the formal economy, but mobile money provides a convenient and safe alternative to informal financial services and cash-based assets. Mobile money also plays a critical role in any national financial inclusion strategy. It not only reduces dependency on cash by enabling digital payments through a mobile device, but also provides a platform for customers to access a much broader range of financial services. The complex infrastructure (mobile connectivity + networks for cash-in and cash-out services + mobile money account) that people use to transact and store their money electronically can be used by a range of financial institutions to offer other services and products, which improves efficiency and competition in the financial sector.

In some markets, mobile money is already reaching huge numbers of low-income and previously unbanked customers, moving millions of households (mostly low-income) from a cash-only economy into the formal financial system. In Kenya, Madagascar, Tanzania, and Uganda, where MNOs are allowed to offer mobile money services, the number of mobile money accounts is already higher than the number of bank accounts. M-PESA, the payment and transfer service operated by Safaricom, is now used by 18 million Kenyans (only 7 million have bank accounts) and processes an astounding USD 1.6 billion (Rs 100 billion) in payments every month. Widespread adoption of mobile money certainly has a bearing on a country's level of financial inclusion.<sup>2</sup> Data released by the Central Bank of Kenya in October 2013 shows a 10.6% increase in formal financial inclusion between 2009 and 2013.<sup>3</sup> There has been a similar trend in Madagascar,

where partnerships between mobile money services and banks have helped rural farmers to access formal banking services. Some banks have recorded up to a 10% increase in transfers to savings accounts.<sup>4</sup>

MNOs can complement formal banking services with basic transactional services on a wide scale, reaching every village, hamlet, state, or city in India without discrimination and without regard to any restrictions on the proximity of bank branches, improving safety, efficiency, and competition in the financial sector. Also, MNOs are playing an increasingly essential role in extending access to a broad range of financial services beyond payments and transfers. They are connecting other financial services providers to their mobile money platforms and building a broad ecosystem where many products and services sit on basic mobile money platforms (see Figure 1). MNOs can be a catalyst for enabling universal financial inclusion in India.

MNOs can make financial inclusion viable and sustainable because of the strong business case for mobile money.

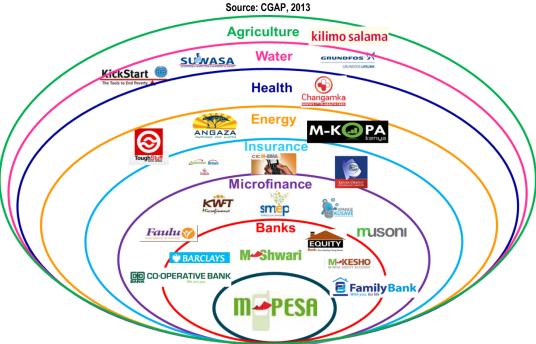


Figure 1. Financial and non-financial products offered by the mobile money service M-PESA

#### Does regulation play a critical role in the development of mobile money markets?

There are more than 200 mobile money deployments in 83 countries across the globe. In most of these countries, enabling regulatory approaches allow non-bank providers to operate within a proportional oversight framework that includes both prudential and market conduct requirements. These countries include Bolivia, Brazil, Burundi, Democratic Republic of Congo, Fiji, Kenya, Madagascar, Malawi, Malaysia, Morocco, Namibia, Paraguay, Peru, the Philippines, Rwanda, Somaliland, Sri Lanka,<sup>5</sup> Tanzania, Tonga, Uganda, Zambia, Zimbabwe, and the eight members of the West African Economic and Monetary Union (WAEMU), amongst others.

In 2012, the GSMA conducted a global survey to measure the state of the mobile money industry.<sup>6</sup> Of the 78 mobile money service providers that participated in the survey, 14 were experiencing rapid growth while the others were

struggling to get traction. Of these 14 "sprinters", 12 were in markets where regulation has created an open and level playing field for non-bank financial institutions and MNOs to provide mobile money services (see Figure 2).

Of the 14 fastest growing mobile money markets in the world, 12 allow MNO-led deployments.

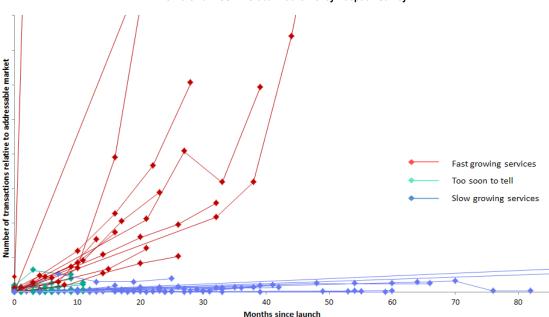


Figure 2. How does the performance of mobile money deployments compare?

From the 2012 GSMA Global Mobile Money Adoption Survey

#### Why are banks usually unsuccessful at developing mobile money services?

The business case for providing mobile money services to the unbanked in the most remote rural areas of India is not appealing to banks. Banks are interested in providing *additive* mobile banking services for their existing client base, where mobile is simply an additional and more convenient access channel. Until now, transformational mobile money services—the use of information and communication technologies (ICTs) and non-bank retail channels to extend financial services to clients who cannot be reached profitably with traditional branch-based financial services—have not given banks the right incentives to invest in these customers long term. In fact, the potential business at the bottom of the pyramid requires the traditional banking business model to be radically reworked, while the burgeoning middle class in developing countries is presenting a tremendous business opportunity that is both easier and fits within the current business model. Moreover, banks will derive little commercial benefit from selling the most profitable banking products to low-income people, particularly in a business where customer acquisition, channel development, and compliance are all costly for the bank yet projected returns are not encouraging.

Most banks have been unable to scale mobile money services and lack incentives to make the necessary investments.

#### Why are MNOs uniquely positioned to offer affordable mobile money services to the unbanked?

MNOs have proven they can address the needs of the unbanked or the underbanked by building a sustainable business model which generates both direct revenues and indirect benefits for their core GSM business. Firstly, the direct revenues from mobile money services nicely complement an MNO's voice and data revenues. Secondly, MNOs see mobile money as an adjacent service that fits neatly into their established business and trade network, can be operated using some of the same core competencies as managing mobile recharge, and leverages unique incentives that MNOs have and banks lack.

MNOs have been successful at providing mobile money services for four key reasons:

- 1. They have a number of assets they can leverage to offer mobile money services, including:
  - far-reaching distribution networks that could be used to create access to even the most remote locations;
  - the subscriber identity module (SIM) card and data channel on customer handsets that give users and third parties an interactive interface;
  - brand recognition; and
  - customer confidence.
- 2. They have expertise in areas central to their core business and necessary for mobile money, including:
  - mass marketing, including both above the line (ATL) brand campaigns and below the line (BTL) customer education campaigns;
  - building and managing a broad distribution infrastructure;
  - stock replenishment;
  - trade motivation and management;
  - cash collection; and
  - small value product design and promotion.
- They use mobile money to cross-sell new services to their existing customers (subscribers) and to compete for customers using other networks.
- 4. They are able to generate some unique forms of indirect revenue from mobile money, including:
  - savings from airtime distribution (when distribution is still done through scratch cards);
  - reduced churn; and
  - increased wallet share for voice and Short Message Service (SMS).

MNOs are often more keen to make investments in building and scaling mobile money services than other providers because they can generate both direct top line revenues as well as indirect benefits for their GSM business.

# From a commercial perspective, do Indian MNOs have the same comparative advantages and incentives to deliver mobile money as in other successful markets?

Indian MNOs are very interested in expanding the provision of mobile financial services in India, which would help to extend the reach of the financial sector and benefit low-income households and people living in rural areas. Indian MNOs are particularly well positioned to provide viable mobile money services because they can leverage the following assets:

 The SIM card and data channel on customer handsets that give users and third parties an interactive interface at a very low cost. There are nearly 900 million mobile connections across India, and this figure is expected to rise to 1.16 billion by 2017. While a large majority of the mobile services in India are based on 2G technology, the country has seen the adoption of 3G accelerate in recent months. With improved spectrum pricing and management, mobile broadband service is expected to continue to grow, with 3G and 4G adoption projected to increase by 31% between 2013 and 2017 (see Figure 3).7 According to the Telecom Regulatory Authority of India (TRAI) there are 350.37 million rural subscribers.8

Mobile connections by technology [mn] +31% 3/4G 1,159 1,103 1,044 1,000 39 and 49 29

Figure 3: Number of 2G/3G mobile connections in India (in millions)
From GSMA Mobile Economy India 2013

- Their experience in the airtime business building and managing a broad distribution infrastructure.
  - Indian MNOs manage between 2 and 2.5 million points of sale.
- Their commercial interest in working with the bottom of the pyramid.
  - Indian MNOs are already providing services to rural and low-income groups. For instance, a Rs 10 recharge voucher is a high volume SKU for any MNO in India. By paying attention to the needs of low-income groups, Indian MNOs have developed a low-cost model that can support small value reselling such as this.
- Their expertise in mass marketing.
  - Apart from the high-profile ATL brand building campaigns that Indian MNOs regularly conduct, they have also devised relatively inexpensive methods of targeted marketing, especially for their Value Added Service (VAS) products, through channels like SMS, postpaid bills, SIM-based applications, Wireless Application Protocol (WAP) portals, etc. Since the MNOs have access to a rich body of information on customer demographics, location, past usage history and preferences, many have developed advanced reporting and campaign management capabilities that allow them to connect to customers with commercially and contextually relevant products and services. These capabilities could be extended to mobile money services as well, subject of course to applicable TRAI regulations.
- Brand recognition and customer confidence.
  - Most Indians have long-term relationships with MNOs, using mobile services daily or even multiple times
    a day, even in rural areas. Brand loyalty is critical for converting voice subscribers to mobile money
    users; subscribers entrust their MNO to deliver their money to the recipient safely just as they entrust the
    MNO to deliver their voice communications and messages.

- Their ability to use mobile money to cross-sell new services to existing customers and to generate some unique forms of indirect revenue from mobile money, including savings from airtime distribution, reduced churn, and increased wallet share for voice and SMS.
  - In India, as in other markets, increased competition in mobile telephony has resulted in a reduction of the unit cost of voice per minute. Indian MNOs have had to rely on non-voice revenue streams to hedge against diminishing voice revenue. Mobile money is one such revenue stream and can generate between 1% and 5% of an MNO's total revenues. Globally there are already four MNOs that derive over 10% of their revenues from mobile money operations, while in Kenya M-PESA contributed 18% of direct revenues for Safaricom in 2012-13 FY. India should be no exception.
- Their existing partnerships with VAS partners to bring associated products to a mobile user. This collaborative approach is necessary to create an environment where microfinance entrepreneurship is encouraged and allowed to flourish using the MNO's trade network and system platforms.
- Their experience managing complex interoperable platforms.

# 3. Regulatory reforms to enable mobile money to achieve financial inclusion in India

A set of regulatory reforms is essential for enabling mobile money services to encourage greater access to financial services in India. These reforms are neutral to the mobile money model and cut across the prepaid payment instrument (PPI) and banking correspondent (BC) models.

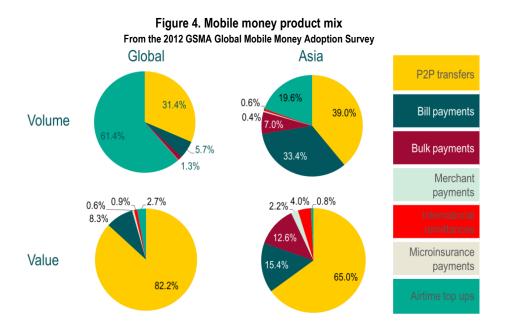
#### Permitting cash-out (withdrawal) at third party agents with reasonable transaction limits

In order for mobile money services to scale and become sustainable, enabling access to safe, secure and efficient digital financial services for millions of low-income and unbanked customers, it is necessary to permit cash-out (withdrawal) at third party agents with reasonable transaction limits.

Peer-to-peer (P2P) transfers are one of most important mobile money services (see Figure 4). Customers benefit greatly from being able to access a safe and convenient service that allows them to transfer small amounts and make payments electronically, convert cash to e-money and e-money to cash with third party agents. In the early days of a mobile money deployment, these services tend to be in particularly high demand because customers are not yet comfortable with storing value in the system and will convert e-money into cash as soon as the sum is transferred into their e-wallets.

From the perspective of anti-money laundering (AML) and combating the financing of terrorism (CFT), according to the Financial Action Task Force (FATF), the risks posed by any cash-out transaction can always be effectively mitigated if service providers take several countermeasures. Obviously, anonymity is a risk factor that can be mitigated by implementing identification and verification procedures (e.g. requiring customers who have an ID to show it every time they cash-in or cash-out). But even in the absence of such procedures, the risk posed by an anonymous product can be effectively mitigated by other measures, such as imposing value limits (i.e. limits on transaction amounts or frequency) and implementing effective monitoring systems. For this reason, all risk factors and mitigation measures should be taken into account when assessing the overall risk of a mobile money service and its features (see Box 1, below).<sup>9</sup>

Cash-out at third party agents is a necessary feature of mobile money.



### Box 1. Proportional customer due diligence: the risk-based approach to mobile money services in the new FATF AML/CFT framework

From an AML/CFT perspective, mobile money products can be classified as low-risk and, therefore, granted certain exemptions from the typical know your customer (KYC) and customer due diligence (CDD) procedures that financial sector regulators design for products with a higher risk profile. According to the Financial Action Task Force (FATF), after conducting a risk-based assessment, countries may decide that reduced or simplified controls are sufficient to safeguard low-risk activities against abuse. If a country finds that some financial services meet FATF criteria for exemption, it may even exclude those activities, wholly or partially, from its national AML/CFT regimes.

Following the revision of its Recommendations in February 2012, the FATF adopted in February 2013 the Guidance on Financial Inclusion and new Guidance to Assist in the Conduct of Risk Assessment at the Country or National Level (RBA Guidance). In June 2012 it adopted the new Guidance for a Risk-Based Approach to Prepaid Cards, Mobile Payments and Internet-Based Payment Services, otherwise known as guidance on new payment products and services (NPPS). This AML/CFT regime determines, at a country level, the KYC and CDD compliance requirements for mobile money providers, which fall in the category of money value or transfer service (MVTS) providers.

There are two important innovations in this new framework. First, the 2012 Recommendations and accompanying guidance papers officially recognise that financial exclusion is a money laundering/terrorist financing (ML/TF) risk and that mitigating the risks of financial exclusion is vital to achieving an effective AML/CFT system. Second, the 2012 Recommendations make the risk-based approach to AML/CFT central to the implementation of all FATF standards; FATF asks countries to base the design of AML/CFT regimes on the assessment of the specific risks related to different industries, products, delivery channels, and all country characteristics taken into consideration.

Both the guidance documents on financial inclusion and NPPS are especially relevant for assessing risks related to mobile money products and, eventually, exemptions from the main AML/CFT regulations for the mobile money industry. The current FATF Recommendations allow for simplified CDD measures in cases where there is a low risk of money laundering or terrorist financing. In regard to mobile money, for instance, countries may consider applying so-called "progressive" or "tiered" KYC/CDD approaches whereby transaction/payment limits vary based on CDD; the more complete the CDD process, the higher the limits. In the NPSS Guidance, FATF examines how mobile payment products and services work and how to regulate and supervise their provision, balancing the objectives of financial inclusion and integrity. In the Guidance on Financial Inclusion, FATF emphasises that applying an overly cautious approach to AML/CFT safeguards can have the unintended consequence of excluding legitimate businesses and consumers from the financial system. AML/CFT controls should not inhibit access to formal financial services for financially excluded and underserved groups, including low-income, rural sector, and undocumented groups. The document provides great clarity and guidance on the FATF Recommendations that are relevant to the promotion of financial inclusion and shows how the Recommendations can be read and interpreted to support financial access.

In compliance with the FATF Recommendations, in late 2011, the Central Bank of Sri Lanka (CBSL) issued mobile payments guidelines which permit non-banks to issue electronic wallets as long as they maintain equivalent funds held in a custodial account in one or more licensed commercial banks. In April 2012, CBSL issued a mobile money licence to Sri Lanka's largest MNO, Dialog. Since Dialog launched in June 2012, it has registered over 1 million mobile money accounts and has 200,000 active customers on a 30-day basis. While the non-bank allowance is critical, the most innovative element of the Sri Lankan regulations is KYC, where they created an entry-level account which customers can activate remotely by dialling a number from their mobile phone.

- Entry-level "Classic account": Customers can activate a "Classic" account simply by dialling a number from their mobile phone. Dialog then uses the KYC information already stored in its database from the customer's SIM card registration to verify his/her identity. The SIM card registration process includes a physical copy of the customer's original national ID card (the photocopy is later digitised and uploaded to the internal database), which is stored with the signed contract. All Sri Lankans are required to apply for their national ID card on their 16th birthday and to carry it with them at all times. The maximum amount a customer can add to a Classic account is Sri Lanka Rs 10,000 (Indian Rs 5,000 or US\$80). The "Classic Account" allows them to send money (up to Indian Rs 2,500 or US\$40 per transaction), pay utility bills (up to Indian Rs 5,000 or US\$80 per transaction), and conduct other transactions such as online payments, microinsurance, microfinance loan repayments, or subscription payments.
- "Power" account: If customers want to conduct transactions that exceed these limits, they can activate a "Power Account" with a balance limit of Rs 25,000 (Rs 12,500 or US\$200) and higher transaction limits. To activate a Power Account, a customer must visit a Dialog Customer Care Centre to confirm his/her identity.

# Harmonising the KYC requirements of the Reserve Bank of India and the Telecom Regulatory Authority of India

The customer identity verification stage can be difficult and burdensome to achieve and can create a significant barrier to financial inclusion. Excessive KYC requirements inject unnecessary costs into the mobile money model, which can be detrimental to the viability of the business and should therefore be minimised wherever possible and proportionate to the risks being mitigated (following the principle of "proportionality" defined by the FATF in Box 1). Burdensome KYC requirements dissuade operators from expanding their operations quickly and can leave behind those whose identities are more difficult to verify – usually low income, the unbanked, and residents of the most remote areas. Proportional KYC requirements allow MNOs to focus on customer acquisition, customer education and product trialling while preserving the integrity of the financial system.

In India, any airtime customer signing up for a mobile money service should not be required to produce any additional KYC documentation. The KYC procedures implemented for SIM card registration – in compliance with the TRAI's 2012 Guidelines<sup>10</sup> – shall be considered sufficient for an existing MNO customer to activate a new e-wallet.

Proportional and cost-effective KYC regulation is critical for an inclusive financial system.

#### Improving Aadhaar-based KYC procedures

A unified national identity system assures regulators and MNOs that the operator is dealing with the legitimate holder of an account. Aadhaar, a unique identification number issued to residents of India, will benefit the mobile money ecosystem both in terms of monitoring transactions as well as ensuring that government benefits transfers and other mobile payments reach the intended beneficiary. The circular issued by the Reserve Bank of India (RBI) in September 2013 authorising fully Aadhaar-enabled electronic KYC (e-KYC) as "a valid process for KYC verification under the RBI's Prevention of Money Laundering Rules", makes the identification and verification process paperless and near instantaneous, and has the potential to make the account opening process significantly faster.

However, Aadhaar penetration levels are still low. Figure 5 compares Aadhaar penetration in various states to the number of 'card to account' transfer recipients (through Airtel Money) in these states. For example, Uttar Pradesh, which has the highest proportion of recipient bank accounts, has only 6% Aadhaar penetration. Also, the deployment of Aadhaar-compliant biometric fingerprint devices at hundreds of thousands of agents is a costly and complex proposition, which makes it extremely challenging for the new mobile money system to be adopted quickly and on a large-scale. The following corrections may make the Aadhaar-enabled identification system more effective:

- 1. Accept the Aadhaar card as proof of identity at agent locations. The Aadhaar number could be used for all data clean-up (de-dupe), transaction monitoring, etc.
- 2. Aadhaar e-KYC should not require mandatory biometric authentication because it is too expensive to provide, and one-time password (OTP) and profile-match authentication models are also available. Until a large number of applications are integrated with Aadhaar, the viability of biometric devices will continue to be questionable and will impose compliance costs on MNOs that are not affordable if financial inclusion is to be achieved.
- 3. Aadhaar should not be mandatory to enable cash-out.
- Aadhaar-enabled accounts should be given higher transactional limits. RBI should consider permitting cash-out based on TRAI-compliant KYC up to a certain limit of transactions, while allowing higher limits for Aadhaarenabled customers.

With Aadhaar and a few corrections to the current requirements, a cost-effective identification and verification system can be set up for mobile money customers.

Share of inward recipients (# a/cs) Aadhaar penetration (%) 28 UP вн мн WB 24 OR 25 KK ΤN 37 AP JH 60 3 DL PB 3 2 HR 39 2 AS. 2 GJ MP RJ 1 HP KL, ΤP

Figure 5: Statewide share of inward recipients versus Aadhaar penetration based on Airtel Money transactions

## Removing the requirement that banking correspondents need to be within a 30 km radius of bank branch

The requirement that banking correspondents (BCs) need to be within a 30 km radius of a bank branch should be amended to extend financial services further into rural areas via MNO networks, and to increase the availability of financial sector touch points for rural and low-income populations.

Extending mobile money services to rural areas requires the 30 km rule to be removed.

# Harmonising transaction limits between mobile money accounts opened by non-bank and accounts opened by banks

There is a discrepancy between P2P transaction limits for fully KYC'd mobile money accounts opened by non-bank BCs (Rs 5,000 per transaction and Rs 25,000/month) and fully KYC'd accounts opened by bank BCs (Rs 49,999 per transaction and Rs 1,50,000/month). This discrepancy should be removed as it contrasts with the FATF Principles and Guidance documents discussed above, as well as with the principles issued by the Committee on Payment and Settlement Systems (CPSS) at the Bank for International Settlements (BIS).

According to the BIS, regulating solely by type of entity may reduce the effectiveness of regulations and create market distortion, and any regulatory intervention should aim to create a level playing field between equivalent services rather than between different providers. In Principle n.3, the BIS rejects any form of discrimination between different types of providers that offer equivalent services based on "the nature of the provider's other lines of business." Applying the principle of non-discrimination also promotes fair and equitable competition across the financial sector. Regulations should instead be designed by type of service, such as payments, savings, credit, and insurance, not by the entity that

provides them. The function and characteristics of each service must be assessed and regulations calibrated according to the risks it poses so that customers can use it safely and conveniently.

In 2011, the BIS released an analysis of mobile money and explicitly pointed out that the regulatory framework needs to enable entities, including non-banks, to get licences to operate as payment service providers, e-money issuers, and/or money transfer providers. They should be regulated depending on the type of services they offer, in a manner proportionate to the specific risk of the service.

There should be no discrimination between service providers on transaction limits for a similar service.

#### Allowing market-based pricing

Regulation that directly controls prices could quickly suffocate the economics of mobile money and halt the development of services and expanded geographies. Imposing price controls ignores the long history of failure of such interventions: controlled prices prevent markets from efficiently allocating resources and may deteriorate the quality of the services, stifle innovation, and divert customers to inequitable informal markets. Market-based pricing is critical to developing viable and sustainable services, as well as competition in the mobile money market.

The price of mobile money services in India should be set by each provider according to market dynamics. This will allow each MNO to make the right level of investment in the development of products, the distribution network, etc., and to allow providers to price products to suit the different economic profiles of its customers and transaction sizes. Rather than imposing government-fixed prices, consumer interests are better protected if the market is more competitive and innovative. India's competition law already protects customers from abuses that might be of concern to the financial sector regulator, providing a range of legal instruments to censor anti-competitive behaviours such as price fixing.

The price of services should be market-based. Anti-competitive behaviours are regulated in competition law.

### Amending the restriction to place the 'core portion' of an escrow account in a current interestbearing account

MNOs should be able to negotiate the commercial terms of mobile money escrow accounts with banks. Operators could use these interest earnings to pay out interest to their customers (making mobile money an even more effective service for achieving financial inclusion) and to lower the cost of mobile money services. Current restrictions hamper the sustainability of these services and therefore have a negative impact on the cost to customers. Section 7.4 of the guidelines for issuance and operation of prepaid payment instruments in India should therefore be amended.

The terms of mobile money escrow accounts should be freely negotiated between banks and MNOs.

#### Enabling mobile money providers to pay interest on value stored in an e-wallet

In a paper written for the World Economic Forum, CGAP's Ehrbeck and Tarazi (2011) argue that mobile money accounts, which already provide a safe place to store value, should be able to offer poor users the full benefits and security of a savings account. Considering that 75% of Ugandans who saved cash in 2009 lost some of their savings, and that the country's banking sector is not yet meeting the needs of most unbanked customers, an e-money account accessed through a mobile device or nearby third party would be a convenient, safe, and desirable option for many. Ehrbeck and Tarazi also suggest that non-bank mobile money providers should be allowed to pay interest on an e-float linked to a customer's account balance because this would provide a strong incentive for unbanked people to join the formal financial system via mobile money platforms. "When pressed for a reason, regulators often simply state that paying interest is a banking activity. However, definitions of banking activity typically focus on taking deposits and, in most regulations, intermediating deposits through lending. Intermediating deposits places them at risk, thereby raising systemic concerns prudential regulation is intended to mitigate. While non-bank e-money issuers are arguably taking deposits, these deposits, if held wholly in a bank, are not intermediated by the issuer. Even when regulation expressly defines the payment of interest as a banking activity, it is hard to identify what risk lies in allowing non-bank issuers to pay interest."<sup>111</sup>

Paying interest to mobile money customers on the value stored in an e-wallet is justified from a regulatory perspective and could really help to achieve financial inclusion.

#### Removing the pre-approval requirement for wallet-to-wallet interoperability

The RBI has the authority to pre-authorise wallet-to-wallet interoperability schemes. Removing this requirement may lower one of the barriers for service providers to create a more vibrant, efficient, and far-reaching mobile money ecosystem.

Wallet-to-wallet interoperability could be a way for MNOs to increase customer adoption, if regulation facilitates it.

### 4. Mobile money: a sound, safe, and responsible industry

# Safeguarding customer money for a secure mobile money business model and a stable financial system

Most mobile money deployments around the world follow a very similar business model, particularly when it comes to safeguarding customer money, where best practices are well established at both the regulatory and commercial level.

A key prudential requirement typically imposed by regulators ensures that a customer's money is available when the customer wants to redeem it. Non-bank mobile money providers are required to maintain liquid assets equal in value to the amount of money issued electronically. One common approach is to require assets to be ring-fenced and held in a bank account. The funds can be deposited in one or several commercial banks (the latter is required in Afghanistan, Namibia, and Kenya) that are fully prudentially regulated. In this way, any amount that passes through the mobile money system is backed 100% by the pooled account or accounts. Depositing the funds in different banks is a way to mitigate risk in case one of the banks fails.

The Consultative Group to Assist the Poor (CGAP) has noted that these requirements are more stringent than those imposed on deposit-taking financial institutions, "which are typically subject to reserve requirements mandating only some small portion of overall deposits to be kept in liquid form—typically cash—to satisfy potential depositor claims." <sup>12</sup>

Customer funds are usually pooled and held by the bank(s) in the issuer's name. Therefore, some regulators have also required that the funds backing mobile money stored value are protected from institutional risks, such as claims made by creditors in cases of issuer bankruptcy. This protection is guaranteed by establishing a "trust" or fiduciary agreement, under which funds are held on behalf of clients. The concept of a trust was originally developed in common law jurisdictions, but recently some countries with a civil law tradition have adopted similar concepts. France, for example, passed a law establishing the concept of "la fiducie" in 2007, and this concept is referenced in the Central Bank of Congo's e-money regulation as a mechanism for ensuring that customers can recover their funds in the event of issuer failure.

The risk of mobile money customers losing the money they have stored in the system is mitigated if:

- 100% of the cash backing mobile money is held in a fully prudentially regulated institution, such as a bank or an MFI, or in more than one institution (depending on the deployment's stage of development);
- the non-bank mobile money provider does not intermediate the funds:
- customer funds are isolated from the issuer's funds and protected from claims by the issuer's creditors; and
- the funds are held in liquid assets spread over several financial institutions, including government securities.

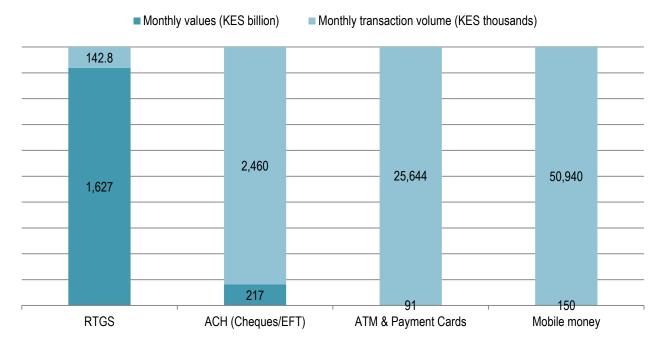
The Indian model is analogous to a 'unit trust' except that the value of each (e-money) unit is at par with the underlying cash and absolutely no gearing or intermediation of the funds is permitted. <sup>13</sup> Unit trusts do not expose the underlying custodial bank to the risk of a run on the bank. If for any reason the mobile money scheme failed, customers can legitimately appeal to the trustee that is holding the funds in a fiduciary capacity. The banks holding these trust funds on behalf of the trustee are not active customer-facing participants in the mobile money scheme, and the failure of a particular mobile money provider would not necessarily shake confidence in the custodial banks: the deposits that each custodial bank holds would remain intact and the bank would proceed to convert each customer's credit into cash. This procedure is described in detail in the regulation of mobile money services that is in force in the Democratic Republic of Congo. Any banks with converged or integrated products would be unaffected.

The value of money transacted through mobile money platforms pales in comparison to the value of money moved through the formal banking system. For instance, in Kenya, the biggest mobile money market, USD 60 million (Rs 3.7 billion) in mobile money transactions are performed daily while \$1.3 billion (Rs 81 billion) passes through the country's formal banking system every day. A recent survey conservatively puts the number of active bank accounts in Kenya at 5.4 million, while the number of active mobile money users is estimated at 11.5 million<sup>14</sup>—more than half the country's adult population. \$1.6 billion (Rs 100 billion) in payments is processed every month. To put these figures in perspective, \$1.2 billion (Rs 75 billion) is processed through the Real Time Gross Settlement (RTGS) daily and another \$100 million (Rs 6.2 billion) is processed in the Automated Clearing House (ACH)<sup>15</sup> (see Figure 6). So, while mobile payments account for a larger volume of transactions, the values are a tiny fraction of that which moves through the formal banking sector. The failure of a mobile money scheme in Kenya is unlikely to create any shocks to financial stability.

Furthermore, customer perception of a mobile money agent tends to be very different than that of a bank branch. Bank branches carry a guarantee of liquidity since a lack of liquidity can have serious consequences (e.g. a run on the bank), whereas mobile money agents do not necessarily carry this guarantee because customers perceive them as an MNO's point of sale for prepaid airtime or agents of remittances companies. If a customer cannot cash out at one agent they simply go to a different agent or wait until cash is replenished.

The typical mobile money business model is sound and safe and prevents financial contagion by holding funds in multiple escrow accounts that are prudentially regulated.

Figure 6. Real Time Gross Settlement (RTGS) versus retail (and mobile) payment systems in Kenya Source: Central Bank of Kenya, 2012



# Alternative business models for delivering mobile money services: commentary on the adoption of the "narrow banking" model

Mobile money services deployed by MNOs do not pose any substantial risk of financial contagion to the overall financial system if one MNO fails. In Kenya, Sri Lanka, and many other countries that have adopted enabling mobile money business models, mobile money is typically based on the four key principles for safeguarding customer money described in the previous pages:

- 1. 100% of the cash backing mobile money is held in a fully prudentially regulated institution, such as a bank or an MFI, or in more than one institution.
- 2. The non-bank mobile money provider does not intermediate the funds.
- 3. Customer funds are isolated from the issuer's funds and protected from claims by the issuer's creditors.
- 4. The funds are held in liquid assets spread over several financial institutions, including government securities.

Holding the cash that backs mobile money in more than one financial institution also mitigates the risk of one MNO becoming insolvent. This model has been broadly tested and proven to be safe and effective everywhere it has been adopted.

Alternative business models (such as the "narrow banking" model) for delivering mobile money services should only be considered if they promise to make service delivery even more efficient than the typical mobile money business model.

The "narrow banking" model is one of the alternatives the RBI is currently examining. A new type of "mobile money and narrow banking" institution would offer savings, payments, and cash-in/out services, but not issue credit, and would be required to store 100% of their deposits in the RBI itself (which would then invest in government securities). A licence could be granted to MNOs and the model would allow interest to be paid to mobile money customers and cover the stored value with deposit insurance. In considering this alternative, the regulator should carefully assess whether creating this new legal type would allow MNOs to maximise their assets and expertise without the burden of unnecessary regulations and compliance, which can compromise the viability and sustainability of the mobile money business.

It should be noted that while there is clear evidence the mobile money model can safely drive customer adoption and financial inclusion, models similar to "narrow banking", such as the "banco de nicho" model in Mexico, have not yet achieved similar success. The challenge with the "banco de nicho" model is that it limits the role of MNOs in providing mobile financial services to act as agents or banking correspondents without enabling the use of their assets (described in Section 2). The "banco de nicho" model permits MNOs to apply for a licence as niche banks, but the compliance costs (including relatively high capital requirements) have so far kept MNOs from entering the market.

#### Building a responsible industry

Managing the risks of money laundering (ML), financing terrorism (FT), and fraud, as well as the risks to service users is critically important for ensuring legal compliance and the commercial sustainability of any financial services provider. It also increases customer confidence and loyalty and mitigates the reputational risks to both providers and the industry as a whole. The management and mitigation of these risks is challenging: putting a practical, effective, and relevant strategy in place to manage all these risks is both time-consuming and resource intensive, and full protection against all potential risks is impossible. However, if mobile money providers aim to build a sustainable business, they cannot afford to take this task lightly and must employ effective and practical practices to mitigate and manage risks.

Indian MNOs are aware that the adoption of responsible business practices will make their business more sound and viable, increase client retention, reduce reputational risks for the entire industry, and attract external investments. The

adoption of similar standards of conduct across the industry will help to create a level playing field between providers. From the customer's perspective, this will mean being treated consistently well. Therefore, members of the MMAI and the GSMA are working on a set of core business principles to guide providers in responsible business practices, including:

- safeguarding customer money held as electronically stored value;
- clear and effective disclosure of pricing, terms, and conditions;
- reliable and trustworthy distribution channel;
- ensuring clients have knowledge of and access to redress and complaint procedures; and
- protecting clients' sensitive data and personal information.

# Annex 1: Industry position on the use of MNOs' customer data to establish the financial status and credit worthiness of individuals

This Annex was submitted to the Reserve Bank of India's (RBI) Committee on Comprehensive Financial Services for Small Businesses and Low-Income Households on December 13, 2013.

Using MNO data to establish the financial status and credit worthiness of individuals is something that the regulator could encourage, but shouldn't force or mandate. Any such proposals must consider a) the sensitive nature of data and the fiduciary relationship with customers, b) legal aspects and duty of confidentiality of the MNOs, and c) the market incentives for MNOs to effectively participate in any information sharing system like a credit bureau.

- i. Information available from the core telecommunications business includes customers' usage profile (pre-paid or post-paid), top up patterns (value and frequency), bill payment history and punctuality, location information, credit limits for post-paid customers, loyalty profile (e.g. loyalty points accumulated/redeemed) and emergency airtime advances usage and repayment history (where applicable). This information provides a significant and highly sensitive insight to customers' financial well-being and stability, and may have significant implications for individuals, e.g., positive or negative credit information. However, this information is currently collected by MNOs to provide core services and/or meet legal obligations. Using such data for credit scoring and otherwise assessing the financial status or stresses of mobile users would fundamentally shift the nature of trust between customers and their MNOs, because the use of this information for credit scoring is not within the normal expectations of mobile users.
- ii. There are statutory restrictions on the disclosure of customer information as well as specific licensing conditions that may similarly mandate the maintenance of customer confidentiality. Such disclosure can therefore only be done with the express consent of the customer (with the rider that such consent may be withdrawn by the customer at any time). Moreover, in jurisdictions where MNOs are required to establish separate legal entities to operate the mobile money business, it could be particularly controversial for the licensed entities operating the mobile money business to gain access to customer information held by the licensed MNO.

Also, there are questions about the degree to which the broader legal framework in India supports the use of MNOs data for credit scoring because there isn't either an omnibus data protection law or any authority that would be able to supervise and sanction abuses. This is a major challenge. While efforts are underway to introduce a Data Protection Act – this effort is being supported by consultation with privacy regulators from the United Kingdom, Canada, the Netherlands, and the European Union – until the Act is passed there isn't certainty how the relevant data will be legally protected and therefore what regulatory regime could apply to their storage, disclosure and usage. Traffic, location and payment data are already considered "sensitive" under existing and proposed rules. For example, the credit regulations published by the Reserve Bank of India and which include a range of data protection principles such as fairness, purpose limitation and security of data). This would affect the capacity of MNOs to share those data with third parties.

To gain a better understanding of if and how MNO data analytics could be used for credit scoring, a comprehensive due diligence of the relevant regulation should be conducted. This should include the Data protection Act (once finalized), the Indian Contract Law of 1872, and the Credit Information Companies (Regulation) Act of 2005.

iii. Regarding the direct participation of MNOs into credit bureaus, the basic proposition would be that all other participating institutions (e.g., banks, merchants, lenders, and utilities companies) would share customer payment history, not only the defaulters list, and all contributors would be granted the same access to the customer profile and score.

Also, since participation would be on a volunteer basis, each institution should have the right incentive to participate: Traditional lending institutions have clear incentives to share customer information because they can access all the information in the bureau and they can benefit from the screening effect (improved capacity of the lending institution to prevent risky borrowers from obtaining loans and to mitigate adverse selection in credit

markets) and the credit expansion effect (the expansion of lending as credit information increases). Unlikely this incentive would be sufficient for MNOs if they were only allowed to offer retail transfer and payment services with low transactional limits. The risks and costs of sharing this information might not be worth it. The incentive could come from participating in an expanding economy and financial ecosystem, but this would appeal only to an MNO that is in the position to offer mobile financial service in a viable and sustainable way.

Beside the participation in credit bureaus and outside India, there are some examples of MNOs making commercial arrangements with private 3rd parties to provide credit scoring – i.e. Cignifi (Brazil), Experian MicroAnalytics (Philippines), and First-Access (Tanzania). And some companies in this space (i.e. Experian) have a vision to contribute to credit bureaus at a later stage. But these are all market dynamics that are commercially driven. MNOs would be concerned of being mandated to work with governments on this, or being obliged to give up their data to governments or 3rd party bureaus, losing commercial control over the asset they built up.

Sharing MNOs data analytics for credit scoring could only take place:

- with the express consent of individuals (obtaining this retrospectively would be a major challenge as would communicating information about what data will be used and why among a population with varying degrees of literacy);
- under clearly defined rules to limit abuse of data, in compliance with all relevant legislation for privacy and data protection;
- with clearly defined rules on accountability mechanisms, including audits, regulatory oversight and enforcement;
- if there is a strong business case for MNOs and they have the right incentives to participate in a sharing system.

#### **Endnotes**

<sup>1</sup> Simone di Castri (2013a), "Mobile Money: Enabling Regulatory Solutions", GSMA, London, United Kingdom. Available at http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2013/02/MMU-Enabling-Regulatory-Solutions-di-Castri-2013.pdf.

- <sup>2</sup> Recent research shows that financial exclusion has decreased from 38.7% in 2006 to 25% in 2013. See Central Bank of Kenya and the Financial Sector Deepening Trust Kenya (2013), "FinAccess National Survey 2013." Available at http://www.fsdkenya.org/finaccess/documents/13-10-31\_FinAccess\_2013\_Report.pdf.
- 3 Ibid.
- <sup>4</sup> Corrine Riquet, "Small Farmers, Mobile Banking, Financial Inclusion in Madagascar," CGAP blog, 28 October 2013. Available at http://www.cgap.org/blog/small-farmers-mobile-banking-financial-inclusion-madagascar.
- <sup>5</sup> See Simone di Castri (2013b), "Enabling Mobile Money Policies in Sri Lanka: The Rise of eZ Cash," GSMA, London, United Kingdom. Available at http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2013/07/Enabling-Mobile-Money-Policies-in-Sri-Lanka-GSMA-MMU-Case-Study-July2013.pdf.
- <sup>6</sup> Claire Pénicaud (2013), "State of the Industry: Results from the 2012 Global Mobile Money Adoption Survey," GSMA, London, United Kingdom. Available at http://gsma.com/mmu.
- <sup>7</sup> GSMA, "Mobile Economy India 2013," London, United Kingdom. Available at http://www.gsmamobileeconomyindia.com.
- <sup>8</sup> Telecom Regulatory Authority of India (TRAI), Press Release No. 78/2013, New Delhi, 5 November 2013.
- <sup>9</sup> Financial Action Task Force (FATF) (2012), "International Standards on Combating Money Laundering and the Financing of Terrorism & Proliferation," Paris, France. Available at http://www.fatf-

gafi.org/topics/fatfrecommendations/documents/internationalstandardsoncombatingmoneylaunderingandthefinancingofterrorismprolife ration-thefatfrecommendations.html.

Financial Action Task Force (FATF) (2013), "Guidance for a Risk-Based Approach to Prepaid Cards, Mobile Payments and Internet-Based Payment Services," Paris, France. Available at http://www.fatf-gafi.org/media/fatf/documents/recommendations/Guidance-RBA-NPPS.pdf.

Financial Action Task Force (FATF) (2012), "Guidance on financial inclusion," Paris, France. Available at http://www.fatf-gafi.org/topics/financialinclusion/documents/revisedguidanceonamlcftandfinancialinclusion.html.

Financial Action Task Force (FATF) (2013), "Guidance to assist in the conduct of risk assessment at the country or national level," Paris, France. Available at http://www.fatf-gafi.org/media/fatf/content/images/National\_ML\_TF\_Risk\_Assessment.pdf

- <sup>10</sup> MNOs are governed by stringent Department of Telecommunications (DoT) instructions with respect to Subscriber Verification when adding customers to their network. The DoT process, effective 9 November 2012, has multiple level checks to ensure subscribers are properly verified before the SIM is activated. This includes the following:
  - Data entry completed by the Technical Service Provider (TSP) once the customer has filled in the Customer Acquisition Form (CAF) and provided proof of identity (POI) / proof of address (POA) documents.
  - Once data is entered, a de-dupe is performed to check whether multiple SIMs have been issued in a customer's name (an
    individual can hold a maximum of nine SIMs).
  - Once the de-dupe is completed, the database entries are checked and verified with the CAF and supporting POI / POA documents by the TSP for accuracy and completeness and then the SIM is activated.
  - For outstation customers, the TSP conducts additional televerification to verify the identity of the customer who has applied for the SIM card.
  - Once the SIM is activated, the customer is televerified at the company's call centre by dialling 59059 from the new SIM that
    has been activated and the customer's details verified. Once the customer has been televerified, the SIM and the services
    are activated (voice, SMS, and data services).

All TSPs are subject to monthly sample audits (0.1% of the month-end subscriber base), which is carried out by TERM Cells (field units of the DoT) all over the country. The audit scores indicate the health of the acquisition process. TSPs are also required to declare bulk subscribers (companies / organisations holding more than nine SIMs) to the respective TERM Cells.

- <sup>11</sup> Tilman Ehrbeck and Michael Tarazi (2011), "Putting the Banking in Branchless Banking: Regulation and the Case for Interest-Bearing and Insured E-money Savings Accounts," in World Economic Forum's Mobile Financial Services Development Report, 2011. Available at http://www3.weforum.org/ docs/WEF\_MFSD\_Report\_2011.pdf.
- <sup>12</sup> Michael Tarazi and Paul Breloff (2010), "Nonbank E-Money Issuers: Regulatory Approaches to Protecting Customer Funds," CGAP Focus Note 63. Available at http://www.cgap.org/sites/default/files/CGAP-Focus-Note-Nonbank-E-Money-Issuers-Regulatory-Approaches-to-Protecting-Customer-Funds-Jul-2010.pdf.
- <sup>13</sup> Funds are maintained in liquid assets and each unit of e-money is equivalent to a unit of currency. No unit is greater in value than another (no price variation). By analogy, the 'fund manager' would be the mobile money service provider; the 'unit holder' the mobile money customer; and the 'trustee' remains the trustee. The trustee may negotiate with the custodial bank on a specific rate of interest to be earned on the pooled funds, but cannot appropriate the interest to itself, the customer, or the mobile money service provider. It can, however, channel interest earned to a public good e.g., for charitable purposes.
- <sup>14</sup> Central Bank of Kenya and the Financial Sector Deepening Trust Kenya (2013), cit.
- <sup>15</sup> In 2010, Kenya introduced value capping on cheques to a maximum of KES 999,999 or USD11,500 to address increasing cases of cheque fraud. All transactions greater than KES 1 million must be processed through the ACH.