

THE FINANCIAL REVOLUTION IN AFRICA: MOBILE PAYMENT SERVICES IN A NEW GLOBAL AGE

Edited by Josephine Osikena

**With a preface by Mark Simmonds MP,
UK Foreign Office Minister for Africa**

The Foreign Policy Centre



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Josephine Osikena (editor) was appointed Director of the Foreign Policy Centre (FPC) in 2010. Prior to this she worked as FPC Programme Director for Democracy and Development, a post she had held since 2005. As well as providing strategic and operational leadership at the FPC, Josephine's principal areas of analysis focus on the interface between public policy reform, private sector investment and civil society engagement, exploring how all of these components influence development transformation in low income countries and high growth economies across Africa. In addition, Josephine has edited and published a number of FPC publications as well as contributed to an academic book published by Routledge.

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FOREWORD

Mark Simmonds, UK Foreign Office Minister for Africa

By 2013, the number of active users employing mobile money services is estimated to exceed 200 million, up from an estimated 100 million in early 2011. Securing access to financial services, from bank accounts, to savings vehicles, payments systems and insurance services, represents an important factor in driving sustainable economic growth in the global economy. Promoting improvements in the distribution and delivery of formal financial services is integral to the UK's economic interests and values in its relations across Africa and beyond. The advent of the innovation and creativity developed by mobile telephones and the ability of this platform to transform financial services signifies an unprecedented revolution for a massive swathe of ordinary citizens as well as a vast array of businesses and enterprise. Yet, despite the impressive achievements made by mobile payment services to bank the unbanked, the development of mobile money is in its infancy and the real challenge is how best to encourage effective partnerships between businesses, governments (particularly financial regulators) and other key stakeholders to promote financial inclusion.

The British Government can play an invaluable role in facilitating and convening expert networks operating in the mobile money sector to tackle some of the key issues in this important sector. Such events can support dialogue and understanding to help the private sector develop new financial products, champion the exchange of knowledge and experience from countries around the world, as well as promote greater co-operation and co-ordination through regulation that fosters competition and manages risk more effectively.

September 2012



INTRODUCTION

Josephine Osikena, Foreign Policy Centre

Facing facts

According to the Bill and Melinda Gates Foundation, Kenyans using M-Pesa, a mobile phone-based money payments service, undertook more transactions in three years than the total number of worldwide remittance transfers recorded by the global money transfer agency Western Union.

In a recent survey published by GSMA entitled '2011 Global Mobile Money Adoption Survey', the association provides a unique detailed analysis of global customer adoption of mobile money services. The data suggests that in early 2009, only 17 mobile money service deployments existed, however as of April 2012, this has increased to 123 with a further 93 set to be launched. In addition, in 2009 an estimated 45 million unbanked citizens used mobile money services and this is set to rise to as many as 360 million by the end of 2012¹.

Revenues from mobile money transactions are estimated to reach approximately USD \$265 billion by 2015, up from approximately USD \$25 billion in 2010. Much of the revenue opportunities are concentrated in the developing world and high growth emerging economies in regions such as Africa, Asia Pacific (APAC) and the Middle East, where more than one billion people have access to a mobile phone but few, if any, have access to formal financial services. By 2012, this number is estimated to increase to 1.7 billion². Across these global regions, many predict that by 2013, the mobile money user base will account for almost 85 per cent of mobile money customers worldwide³. In 2010 there were an estimated 133 million mobile money users in emerging markets and this is predicted to expand to 709 million by 2015. Ericsson, one of the largest global handset makers, expects person-to-person money transfers to become one of the most popular mobile phone applications in many economies over the next two to three years, where transaction volumes could be exceeded USD \$800 billion by 2015.

This compelling data suggests innovation and technology led by access to mobile telephony provides an unprecedented platform allowing access to improve the distribution of financial services, imperative for driving sustainable long-term economic growth and development transformation. In a relatively short space of time, the opportunities offered by the mobile phone present an increasingly important instrument to combat global poverty and inequality, particularly in a rapidly changing world where there has been a shift in the global distribution of poverty from low-income countries to those very emerging powers now increasingly regarded as high growth, middle-income economies. 72 per cent of the world's poor now live in middle-income economies and this presents new challenges for policymakers and businesses servicing these important markets⁴.

Rationale

The impact of technology and innovation plays a vital role in reshaping many of the challenges and opportunities responsible for social and economic transformation in the world today and it is for this reason that the Foreign Policy Centre in partnership with the UK Foreign and Commonwealth Office embarked upon pulling together this collection of short articles exploring how improving regulation and promoting the expansion of mobile payment schemes might help accelerate the access, provision and distribution of financial services as well as provide commercial opportunities for British business in a new global age.

¹ Neil Davidson and Claire Pénicaud (2011), GSMA, Mobile Money for the Unbanked (MMU) 'State of the Industry: Results from the 2011 Global Mobile Money Adoption Survey' <http://www.businesscalltoaction.org/wp-content/uploads/2012/05/2011-Global-Mobile-Money-Adoption-Survey-Report.pdf>

² Pickens, Mark, (December 2009), 'Windows on the Unbanked: Mobile Money in the Philippines', CGAP Briefing http://www.cgap.org/gm/document-1.9.41163/BR_Mobile_Money_Philippines.pdf

³ Juniper Research (December 2011) 'Mobile Money Transfers and Remittances; business models and monetisation opportunities 2011-2016' http://juniperresearch.com/reports/mobile_money_transfer_and_remittances

⁴ Sumner, Andy (January 2011) 'The new bottom billion' Institute of Development Studies (IDS) <http://www.ids.ac.uk/idsproject/the-new-bottom-billion>

This essay collection includes contributions from authors spanning a range of arenas including: card payment services companies, mobile banking and payment services operators, financial inclusion organisations, technology companies, independent consultancies, trade associations and global foundations. While the ideas developed in this collection of short essays do not claim to provide an exhaustive analysis of all the potential issues associated with improving the regulation and expansion of mobile payment service provision, the publication does aim to offer a platform for discussion and debate touching on a number of key issues. It is worth noting however that the views expressed in each essay are those of each respective author and do not necessarily reflect the views of the Foreign Policy Centre or the other organisations associated with this project.

The events series

This pamphlet builds on an FPC and UK Foreign Office event series, the first of which took place in March 2011, with a follow-up conference taking place in March 2012 (in association with the City of London Corporation and 'This is Africa' - the FT's bi-monthly magazine). The events brought together national and international experts and specialists from across the mobile payment service sector including: mobile network operators, mobile payment providers, banks, money transfer agencies, financial and telecommunications regulators, central banks, financial service operators, government ministries, law firms, embassies and high commissions, national and international development agencies, parliamentarians, academics, as well as representatives from multilateral agencies, civil society organisations and the media. The event series aimed to develop and promote an evidence-based understanding of the risks and challenges associated with supervising mobile payment services and promoting their global expansion.

Overview

The article collection focuses on three core themes. The first explores how effective regulatory oversight might be developed. The second examines how expanding the provision of mobile payment schemes might improve the distribution of financial services and finally the third section critically assesses the future of branchless banking beyond issues of financial access. This section considers the challenges of increasing service use and integrating mobile money services into existing electronic payment systems.

Section one

'Developing an appropriate regulatory framework' forms the opening section in which Claire Alexandre, formerly of the Bill and Melinda Gates Foundation and Mireya Almazán from the Bill and Melinda Gates Foundation provide an article outlining the benefits of a transition from cash to electronic money. The essay addresses concerns about how to tackle financial exclusion without compromising financial integrity. Alexandre and Almazán contend that regulatory standards need to be proportionate and based on risk, allowing for the development of financial products and services that appropriately meet the needs of the unserved and underserved. Simone di Castri of Mobile Money for the Unbanked at GSMA Mobile for Development provides two case studies from French-speaking Africa. His analysis explores how evidence based regulation can successfully improve the take-up of mobile money services. Di Castri concludes that regulatory approaches should adopt a 'test and learn' model and through implementing international good practice. In order to achieve this he argues that all relevant stakeholders need to be included in the policymaking process and regulation, above all else, needs to prioritise: safety, security and convenience for mobile money users.

Section two

The second and largest section is made up of a cross-cutting collection of articles under the theme 'Expanding and replicating the success of mobile payment service models.' Prateek Shrivastava of Monitise (a global mobile banking and payment service provider) offers first-hand experience of service provision as an independent operator working in markets as diverse as Nigeria and India. Arguably, Prateek asserts that in order to secure the breadth and depth needed to improve financial distribution, banks may need to take the lead. This debate is further expanded with an article from Quan Le of GMX Consulting (a London-based investment advisory firm). Le suggests that banks should embrace opportunities to partner with non-traditional financial institutions in order to revolutionise the provision and distribution of banking services. He asserts that the long-term benefits far outweigh the short-term costs for both banks and mobile financial service operators. Cicero Torteli of Freddom, a Brazilian technology company provides a helpful comparison of operating in the mobile money sector in both Nigeria and Brazil. Beyond mobile

payments, Christine Hougaard of FinMark Trust explores how to transform insurance provision through the mobile phone platform and how this has huge potential to achieve improvements in financial service distribution. Hougaard suggests that regulators need to recognise this opportunity by creating an enabling environment that encourages innovation while championing consumer protection.

Section three

The closing section, entitled 'The future of branchless banking' provides two contrasting articles which both take a distinct approach to the next frontier for money payment service. Hemant Bajjal and Sal Karakaplan, at MasterCard critically assess the current shortcomings of mobile money services. They argue that the only way to achieve the scale required to ensure schemes are successfully deployed is to expand the scope of what is provided beyond a narrow bundle of services in order to increase usage levels. Bajjal and Karakaplan contend that, ultimately, mobile money platforms need to interconnect in order to truly secure financial inclusion objectives. In contrast, Susie Lonie of SL Consultant and Co-Founder of M-Pesa outlines why she believes calls for interoperability are premature and could damage an embryonic mobile money industry by introducing unnecessary complexity in the form of higher costs to customers and discouraging investment in the sector. Lonie asserts that mobile money's connectivity priority should focus on integration into existing payment systems where there is real customer demand.

Access to financial services and foreign and policy

While distinct in approaches and priorities, this essay collection demonstrates that access to financial services share similar qualities to global public goods⁵. In an increasingly interconnected world, the benefits – or lack thereof – of promoting financial inclusion and the wellbeing it generates, extends beyond national borders, generations and populations groups, albeit in different ways⁶. Thus, the impact of improving access to and the distribution of financial services also offers a useful steer to help regulators, policymakers, business, enterprise and other key stakeholders understand how best to oversee the provision of mobile payment services while supporting the creation of an investment environment which promotes the expansion of effective mobile money services that deliver improvements in financial access for all. Moreover, the timeliness of exploring the issue of mobile payments services coincides with the on-going controversy, uncertainty and insecurity surrounding the considerable turmoil in today's global financial system. This demands the development of more effective, equitable and transparent financial regulation through partnerships in which reform gives greater prominence to the issue of financial inclusion.

⁵ Séverine Deneulin and Nicholas Townsend (September 2006), '*Public Goods, Global Public Goods and the Common Good*' WeD working paper 18, ESRC Group on Wellbeing in Developing Countries (WeD).

⁶ Josephine Osikena and Dr Dave Tickner (ed) (2010), '*Tackling the World Water Crisis: Reshaping the Future of Foreign Policy*', Foreign Policy Centre.

SECTION ONE: DEVELOPING AN APPROPRIATE REGULATORY FRAMEWORK

From cash to electronic money: Enabling new business models to promote financial inclusion and financial integrity

Claire Alexandre, formerly at the Bill and Melinda Gates Foundation
Mireya Almazán, Bill and Melinda Gates Foundation

The vast majority of people in the developing world are financially excluded. For the most part, they rely on cash, physical assets and informal services to manage their financial lives and livelihoods. Leveraging the power of real-time connectivity and the growth in mobile phone penetration, has been that new business models are emerging which enable low-income people to become part of the formal financial system. Quite simply, cash can be exchanged for electronic value in ordinary retail stores and vice-versa. Shopkeepers can transfer value from their pre-purchased stock of e-value (electronic money) directly to the customer's account. When retail stores are also able to open accounts on behalf of the provider, the potential for financial inclusion is massive. An account provides the ability to perform functions often taken for granted such as: depositing and withdrawing cash, storing funds securely over time and sending and receiving electronic payments including to and from businesses, governments and financial institutions.

Mobile money can provide a safe bridge to the formal financial system

This scheme provided the innovation behind the now well-publicised and popular mobile money service in Kenya, Safaricom's (the largest mobile network operator in Kenya) M-PESA. With the development of a ubiquitous cash-in and cash-out network via retail stores (known as agents or cash merchants), as well as a decentralised and immediate account opening process, Safaricom successfully incentivised rapid growth of the agent channel (networks) and new account openings simultaneously. As in the case of M-PESA, the e-money account is linked to a mobile phone and customers can manage their accounts as well as initiate transactions practically anytime and everywhere.

While mobile operators like Safaricom are not regulated as banks, oversight is provided by the national payments system division of the Central Bank. The aggregate value of individual accounts is stored in a regulated financial institution, with restrictions on how the funds are utilised⁷. In addition, similar branchless banking models led by banks are also enabling new payment methods and low-value bank accounts to reach previously excluded population groups. Equity Bank in Kenya has seen some success on this front, as well as a few mass-market commercial banks in Latin America⁸.

Financial inclusion contributes to financial integrity...

Financial system regulators in particular have much to gain from the shift from cash to electronic money that schemes like M-PESA facilitate. Electronic transactions are traceable and can be easily recorded and monitored, improving the ability of regulators to identify suspicious or illicit transactions. As such, new payment methods and bank accounts can effectively contribute to more efficient regimes for anti-money laundering and countering the financing of terrorism (AML/CFT). Financial inclusion objectives are entirely complementary to policymaker's financial integrity objectives and together they both mutually enhance broader development goals⁹.

⁷ Claire Alexandre, Ignacio Mas, & Dan Radcliffe, *Regulating New Banking Models that Can Bring Financial Services to All*, Challenge Magazine, Vol. 54, No. 3, pp. 116-134, May/June 2011.

⁸ Mireya Almazán & Ignacio Mas, *Banking through Everyday Stores*, Innovations Journal, Vol. 6, No.1, Spring 2011.

⁹ See www.fatf-gafi.org/dataoecd/62/26/48300917.pdf

...but AML/CFT safeguards to promote financial integrity can have unintended consequences

Despite the complementary policy objectives of financial inclusion and financial integrity, overly cautious implementation of international standards on AML/CFT can have the unintended consequence of excluding millions of poor people from formal financial services¹⁰. In particular, customer due-diligence requirements, also known as Know-Your-Customer (KYC), are frequently set nationally and applied universally on a conservative basis, regardless of the level of risk involved. For example, poor customers seeking to open a low-value account may not always have identity documentation required. Additionally, the verification process can often be complex and expensive for account issuers.

In the case of M-PESA, AML/CFT risks are mitigated, in part thanks to the existence of a national ID system in Kenya, and also through limits on account balances and transaction sizes. The reality however, is that most markets where 'cash is king' lack standardised identity documents, which results in significant barriers to entry for low-income groups. Rather than expecting all nations to implement costly national ID schemes that may take years to be successfully implemented, it would be more prudent for regulators to explore risk-based approaches to KYC as a mechanism to facilitate account opening, which is the first step towards converting cash to electronic value¹¹.

The Financial Action Task Force (FATF), responsible for setting international standards in the area of AML/CFT, recently issued a critical guidance paper on financial inclusion which recognised that the predominance of cash undermines financial integrity. The report clarifies how to interpret some of the standards set by FATF; notably, a wide range of IDs and innovative IT solutions can be accepted as identifiers and storage of data can be achieved digitally. The guidance also explicitly supports the concept of a 'tiered' KYC approach¹².

Risk-based, tiered KYC approaches can tackle financial exclusion

Some countries have already started to adopt tiered, risk-based KYC measures for account opening that have the potential to dramatically reduce financial exclusion, as well as strengthen regimes for AML/CFT. This new approach is innovative by global standards and could be a model for other countries to consider.

Mexico provides a promising case for risk-based, tiered KYC. Approved in August 2011, Mexican regulations for tiered KYC make provision for various degrees of customer authentication requirements based on the value of transactions involved. The new Mexican account opening framework consists of four levels, with the aggregate value of monthly deposits capped progressively for three of the four levels:

- (i) an *anonymous* account that can be purchased at any commercial establishment or online and can be activated through any of the bank's service channels (e.g. call centre or banking agents etc.), with limited access to a range of services. Thus, customers cannot send funds to other bank accounts, and anonymous accounts cannot be linked to mobile payment schemes;
- (ii) a *named* account with very limited verification requirements, can be outsourced to bank agents without a need for the bank to maintain paper documentation;
- (iii) a *fully documented* account opened by bank staff, whereby customers must present valid ID, but hard copies do not need to be kept; and
- (iv) a *fully-fledged* bank account, where customer data requirements are the same as a fully documented account, but the bank must store copies of ID, proof of address and tax ID¹³.

¹⁰ Jennifer Isern & Louis de Koker, *AML/CFT: Strengthening Financial Inclusion and Integrity*. CGAP Focus Note No. 56, August 2009.

¹¹ Claire Alexandre, *Financial Regulators & the Gateway to Financial Inclusion*, e-Finance & Payments Newsletter, September 2011, volume 5, issue 9.

¹² See www.fatf-gafi.org/dataoecd/62/26/48300917.pdf

¹³ Comisión Nacional Bancaria y de Valores; also see:

<http://centerforfinancialinclusionblog.wordpress.com/2012/01/19/mexico-indonesia-and-haiti-advance-financial-inclusion-with-bold-approaches-to-account-opening/#more-5015>

Clearly, much thought has gone into developing this framework and it will be interesting to see how the market reacts to this new regulatory approach.

Challenges and opportunities ahead

The challenge for standard-setting bodies and financial services regulators is to tackle existing barriers to integrate financially excluded people to the formal financial system. With the right regulatory framework and commercial incentives, different types of accounts can be offered without adding money laundering risks, driving new account openings for previously unserved and underserved groups.

To conclude, it is also the responsibility of the banking industry to take advantage of risk-based regulations and introduce new products and services appropriate for low-income client groups. Customer acquisition costs for financial service providers can decline with less demanding KYC requirements, making the business case to serve new population groups relatively more compelling and commercially viable. In addition, driving a greater volume of electronic transactions (relative to cash-based transactions) also lowers the cost of providing financial services. Providers should be empowered to safely leverage new business model opportunities with outsourced distribution channels and play their part in aggressively extending the financial grid to excluded populations.

Building a trusted mobile payments service systems: Policy lessons from Francophone Africa.

Simone di Castri

Mobile Money for the Unbanked, GSMA Mobile for Development

The greatest opportunity to make progress on financial inclusion in developing and emerging countries is provided by new technology channels, in particular mobile technology. Globally, out of 2.5 billion people who are still denied access to the financial system, there are 1.7 billion people who have mobile phones. These people can use mobile phones for remote communication, but still have to store and transfer value through tangible assets. Mobile money is the most cost-effective way to extend the reach of formal financial services, nonetheless its potential to achieve financial inclusion is yet to be realized. The lack of a genuinely enabling policy and regulatory framework is hindering progress in many markets. There are a number of additional problems preventing the expansion of mobile money. Firstly, low levels of financial literacy (or literacy in general). Secondly, there are commercial issues such as appropriately established distribution networks. In addition, improving the design of mobile money products as well as developing the essential technology interface needed to meet customer requirements (e.g. services available in local languages) are also considered as obstacles. From a commercial perspective, mobile money is an emerging sector and it is understandable that, at such an early stage, there are commercial issues that providers are still trying to address. On the policy side however, policymakers and regulators have at their disposal the instruments needed to establish policies and regulation which could ensure the sustainability and security of mobile money services. The templates for some regulatory reforms are not only available, but well recognised and thus simply need to be tweaked to conform to local conditions, opposed to being created from scratch.

Furthermore, setting up the policymaking process in such a way as to enhances the use of empirical evidence, encourage the participation of the private sector and promote mutual learning with providers and other regulators are all essential. Such an approach can help to design a regulatory framework that is conducive to market uptake and customer adoption.

Case studies from Francophone Africa

This article focuses on two case studies which demonstrate the benefits of establishing a participatory policymaking process. The first case study is taken from the Central Bank of Congo (la Banque Centrale du Congo - BCC). It explores how to tackle the challenge of designing an inclusive regulatory framework for mobile money. The second case study is taken from the Central Bank for West African States (la Banque Centrale des Etats de l'Afrique de l'Ouest - BCEAO). This assessment outlines BCEAO's efforts to revise existing policies on e-money services.

Case study one: Mobile money in the Democratic Republic of Congo

In November 2011, the Democratic Republic of Congo's (DRC) central bank, Banque Centrale du Congo (BCC) released a new regulatory framework on electronic money (e-money) titled '*Instruction 24 of 2011*¹⁴'. This represented a landmark in the implementation of BCC's financial inclusion strategy.

Limited availability of financial services

Across DRC, the banking sector is still in its infancy, while telecommunication infrastructure has developed at a much faster pace. Bank penetration rates stand at less than one per cent, with less than 500,000 bank accounts for an estimated population of 71.7 million. Yet, four mobile network operators (MNOs) - namely Vodacom Congo, Bharti Airtel (formerly Zain/Celtel), Millicom (Tigo) and Congo Chine Telecom (CCT - which was sold to France Telecom/Orange in 2011) - reach 61 per cent of the population. There are many factors which make it a challenge to develop a solid functioning financial sector, not least the exceptionally low population density (29.3/km²) in sub-Saharan Africa's largest (with respect to land mass) country.

¹⁴ Banque Centrale du Congo, Instruction n°24 du 2011 relative à l'émission de monnaie électronique et aux établissements de monnaie électronique.

<http://www.bcc.cd/downloads/interfin/reglement/instruction%2024.pdf>.

In this challenging context, developing a financial sector through traditional banking infrastructure has had little, if any impact. In contrast, mobile money has been seen as a powerful instrument to expand access to financial services. Given mobile money's unrivalled potential, BCC has designed an enabling regulatory framework that allows the direct licensing of non-bank, e-money issuers and incentivises the implementation of transformational financial service provision models, in order to reach unbanked customers. According to Jean-Claude Masangu Mulongo, the BCC Governor, by 2014, mobile money will be responsible for increasing access to financial services for ordinary Congolese people by 22 per cent.

Following the release of *Instruction 24*, two MNOs (Tigo and Airtel) have already launched their mobile money deployments, and a third (Vodacom) has been licenced and operation will commence imminently. The rapid uptake from operators is an exceptional achievement considering the new regulatory framework was only approved nine months ago. This progress is due (in no small part) to the fact that Congolese regulators have promoted an inclusive engagement process by inviting all stakeholders and providers to participate in the policymaking process.

An inclusive participatory approach to regulating mobile money

The modernization of the country's payment systems has long been an objective in improving the Congolese financial system. This has included taking the necessary steps to de-dollarize the economy after years of economic and political instability. To implement this strategy, the BCC Governor established (in February 2011) a Mobile Banking Task Force Committee (CMTF). The task force included all relevant representatives from the financial and telecommunication sector, including representatives from: the Ministry of Finance, Ministry of Telecommunication, Telecommunication Sector Regulatory Authority, Congolese Banking Association, all mobile network operators as well as banks and non-bank financial institutions such as cooperatives and microfinance institutions. The aim of the committee was to develop an action plan with the purpose of facilitating the creation of an enabling mobile money regulatory environment. Under the leadership of the central bank, all relevant public and private stakeholders from the financial and telecommunication sector were involved in the design of this legal framework. Notably, the CMTF was not only responsible for exploring how mobile money should be regulated, but also to project the impact of regulation on market uptake and on the adoption of mobile money services by users. This insightful approach has been pivotal to the success of mobile money in DRC. The multi-stakeholder network within the CMTF proved not only to be instrumental in successfully identifying the importance of how best to regulate, but also help to analyse the broader impact of regulatory measures.

In order to support CMTF, BCC sought assistance from key international partners, namely, the Alliance for Financial Inclusion (AFI) and GSMA, who helped CMTF members engage with fellow regulators and mobile money providers from other countries (e.g. Kenya and the Philippines) in order to learn from their direct experiences. The legal framework put in place by the CMTF was approved by the BCC in December 2011 only 10 months after the CMTF had been established.

Key regulatory features

There are a number of key features which constitute current mobile money regulation in DRC.

Licensing

Non-banking financial institutions can apply for a licence to become e-money providers. The minimum capital requirement is \$USD 2.5 million. The regulatory framework also outlines governance aspects such as eligibility requirements for e-money managers.

Protection of customer funds

Issued e-money value must be matched by equivalent fund sums held in a ring-fenced bank account. They cannot be intermediated. Quite simply, should the e-money issuer fall into trouble, the e-float equivalent is explicitly protected from the other creditors.

Transaction limits and Know-Your-Customer procedures

The maximum value that can be stored in each account is \$USD 3,000. The maximum daily transaction limit stands at \$USD500 while a monthly limit is set at \$USD2,500. With respect to Know-Your-Customer (KYC) procedures, a two-tier system for customer due diligence (CDD) was

developed, based on the successful adoption by regulators in countries such as Mexico and Pakistan. Customers are able to transact up to \$USD100 (or a minimum level deemed by the operator, not the regulator) without full due diligence (identification requirements). Full CDD is required to transfer up to the legal limit of \$USD 500 a day, with physical verification of customer identification documents. This includes completing an application form and attaching a copy of photo ID. Electronic records of transactions need to be held for 10 years.

Responsibility and accountability of agents

Agents can be shared but this is not mandatory. E-money issuers are responsible for training agents on all compliance procedures including anti-money laundering and countering the financing of terrorism (AML/CFT). E-money issuers are also held to account for agents' conduct. Each month a list of agents forming part of the distribution network is updated and sent to BCC. In addition, e-money issuers are also required to report to the central bank on a monthly basis for monitoring purposes.

Interoperability

At this stage, BCC remains extremely cautious about intervening to encourage mobile money platforms to interconnect in a market which they regard as fledgling. BCC's reticence is based on its dialogue with e-money providers and assessments of developments in countries such as Pakistan and Ghana. The central bank concludes that mandating interoperability at an early stage is likely to jeopardize market development across DRC. Having set-up an enabling regulatory framework, both policymakers and operators agree that the biggest priority for mobile money growth in the DRC is educating consumers about mobile money services and encouraging a greater take-up of services.

Case study two: Mobile money in the West African Economic and Monetary Union

Only 10.4 per cent of the 93.5 million people living in the eight countries which constitute the West African Economic and Monetary Union (Union Economique et Monétaire Ouest-Africaine - UEMOA) have accounts in a formal financial institution. Direct contact with financial infrastructure is generally low. For example, on average there is one Point of Sale (POS) terminal every 1096 km², one ATM every 3509 km² and on average, access to counters at organisations providing financial services can only be found every 2,500 km². Yet, it is remarkable that there are 70.7 million mobile connections in the region. In light of this fact, there is huge potential across UEMOA to use mobile phones to expand the reach of the formal financial sector. With the help of mobile phone technology, over a decade ago the regional central bank, (Banque Centrale des Etats de l'Afrique de l'Ouest – BCEAO), had developed some very clear ideas about leveraging this untapped potential, long before mobile money become a success story synonymous with M-Pesa.

Non-cash payments regulatory pioneers

In 2002, BCEAO established payments systems regulation that gave impetus to a suite of reforms that have taken place over the last decade¹⁵. All financial institutions (e.g. banks, post offices and microfinance institutions) are expected to promote the use of debit and credit cards, e-wallets, and other emerging means of non-cash payments. Also, payment of utility bills by cheque, card or other non-cash payment instruments are tax exempt, according to the *Directive N°08/2002/CM/UEMOA*¹⁶.

Promoting the use of non-cash payment instruments is also championed in the e-money law enacted in 2006 (*Instruction N01/2006/SP*)¹⁷. This regulation requires that all forms of legally recognised financial institutions make full use of electronic money in order to promote the use of non-cash payment instruments. The aim of this directive has been to optimise access to financial services and security in payment transactions for the wider population (article 4). BCEAO

¹⁵ Banque Centrale des Etats de l'Afrique du Oest, Concertation régionale sur le développement du « mobile banking, http://www.bceao.int/Concertation-regionale-sur-le_2435.html

¹⁶ Banque Centrale des Etats de l'Afrique du Oest, Directive N°08-2002-CM-UEMOA portant sur les mesures de promotion de la bancarisation et de l'utilisation des moyens de paiements scripturaux. http://www.bceao.int/Directive_n08_2002_CM_UEMOA.html

¹⁷ Banque Centrale des Etats de l'Afrique du Oest, Instruction n° 01/2006/SP relative à l'émission de monnaie électronique et aux établissements de monnaie électronique. <http://www.osiris.sn/Instruction-no-01-2006-SP-du-31.html>

regulators deserve a huge amount of credit for being innovative and creative in pioneering legislation that permits nonbanks to issue e-money.

Obstacles to E-money take off in UEMOA

The 2006 regulation has however had limited success. In fact the modest number of e-money products users shows that the market has not yet developed to its full potential. The usage of informal channels of cash based money transfers is still dominant. According to data gleaned from money mobile deployments participating in GSMA 2011 Global Mobile Money Adoption Survey, there was a mere 3.1m registered mobile money users and 190,000 active customers across UEMOA¹⁸.

BCEAO recognized that the sluggish pace of customer activation could be attributed to excessively restrictive regulatory measures. One example included requiring the creation of a subsidiary engaged solely in e-money issuance. This subsidiary was unable to hold an equity interest in any other company. In addition, the application and licensing procedures were widely regarded as a drag on business development.

Learning from other regulators

In an attempt to unlock the mobile money market BCEAO regulators undertook an extensive assessment process. One of the first steps was to explore the approach taken in markets that had proven more successful. With support from AFI, a delegation of BCEAO regulators visited Kenya and the Philippines. They met with central banks, commercial banks, rural banks, cooperative managers, e-money issuers, mobile network operators, banking and non-banking agents, and other stakeholders involved in the implementation of mobile money projects across the two countries. The fact finding missions were instrumental in gaining a better understanding of the business models and regulatory solutions adopted by the central banks in both host countries. Regulators in Kenya and the Philippines keenly advocated a 'test and learn' approach to regulation and actively engaged the private sector in the decision making process.

Next steps: what works and how to make things happen?

By June 2012, BCEAO embarked on hosting a regional consultation in order to explore how to improve the development of mobile money across UEMOA. Representatives from the central banks of Kenya, the Philippines and Tanzania were invited, as well as mobile money managers, bank managers, microfinance institutions, and BCEAO international partners such as the GSMA, the Consultative Group to Assist the Poor (CGAP), and the African Development Bank (ADB). Discussions were structured around presentations from BCEAO staff and policymakers from Kenya, the Philippines and Tanzania. In addition, quantitative data presented by GSMA and CGAP helped identify a number of possible ways forward. GSMA recommendations included: streamlining the licensing process, avoiding increases in capital minimum requirements, allowing greater simplification of account openings, and developing financial education programmes for the wider public¹⁹. One important outcome of the session was the decision by regulators to collaborate with partners to closely monitor the development of e-money markets. BCEAO also committed to undertake a study to gain a more informed understanding of how citizens use formal, semi-formal and informal financial services. Carrying out additional observations to explore how financial service markets operate would provide a better understanding of customer behaviour. It would also help BCEAO perform a coherent appraisal of the different policy and regulatory options available. Such an approach would avert the temptation to hastily amend regulation without being sufficiently informed by robust evidence.

Following this consultation, BCEAO is currently developing an action plan that it intends to implement over the next two years. As part of this process, the BCEAO Governor has set up a

¹⁸ GSMA Mobile Money for the Unbanked, State of the Industry: Results from the 2011 Global Mobile Money Adoption Survey, London, United Kingdom, 2012.
http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2012/05/MMU_State_of_industry_AW_Latest.pdf

¹⁹GSMA MMU presented market analysis based on quantitative data provided by the 2011 Global Mobile Money Adoption Survey. The recommendations were based on observations made from comparing market and provider characteristics across UEMOA relative to other regions. This presentation also, explored possible developments in policy and regulatory frameworks for mobile money.

group of experts responsible for assisting the central bank in revising the current policy framework and has invited a number of stakeholders to participate, including GSMA.

Conclusion

In closing, both case studies share four important features which have proved essential in enabling the central banks, examined to develop effective mobile money regulation. Firstly, both regulators witnessed direct experiences of adopted international good practice. Secondly, the central banks sought to base policy interventions on evidence based approaches about 'what worked.' This was informed by the analysis of quantitative information, opposed to relying on pure assumption. Thirdly, the regulators developed an inclusive policymaking process by engaging a broad range of stakeholders and potential providers. Finally, financial regulators and public officials promoted the development of a 'plan of action' which prioritised the adoption of safe and convenient mobile money products for all users, rather than considering the mere release of new regulatory framework as a final and sufficient output.

SECTION TWO: EXPANDING AND REPLICATING THE SUCCESS OF MOBILE PAYMENTS SERVICE MODELS

A view from Monitise: An A-Z of mobile banking in the developing world

Prateek Shrivastava, Accendo Associates (formerly at Monitise)

Savings, insurance and pensions may not be the most riveting of subject matter, but you'd be amazed how many people want to have them. And that does not just mean people in the developed world who are familiar with banking established as a part of their everyday life. A young man in rural Nigeria may have never seen a bank branch but that does not mean he doesn't want to save for his retirement.

Only 30 per cent of the world's population has a bank account. To draw from this that 70 percent of the planet needs financial services is an oversimplification but it is a good starting point from which to build global financial management infrastructure. Monitise is rapidly discovering that the unbanked, who are located predominantly in emerging markets, are demanding services which go beyond simply making payments. They want to access everything from savings to loans.

So there is a service gap to fill but cost is a major barrier to the adoption of mobile financial services provision in emerging markets. The platform that Monitise has developed and deployed, most recently in Nigeria, provides shared mobile financial services for both technology and agent networks and aims to reduce the cost to providers of successfully launching in emerging markets. In these markets, apart from helping banks and mobile network operators reach out to the unbanked with targeted products, we are also helping authorised companies become 'mobile money scheme' providers. These in turn can enable local banks and other financial service providers to offer mobile money services to their customers.

Wherever we operate, and that extends to India and Indonesia, we have to keep the domestic financial services and telecommunications regulators informed of our work, of course. Generally, we are fortunate in that obtaining a licence to operate, where that's required, tends to be the responsibility of our operating partner in that particular country. Nigeria proved to be an exception and due to regulatory requirements, Monitise Nigeria needed its own licence to provide mobile money services.

There's no set template for entering a market, but in our experience what works best is bringing a managed service and a best-of-class technology platform into a country and then customising it for local deployment.

We also find, particularly in emerging markets, that providing the toolkit to build an agent network and the know-how of business processes to operating the service, permits a smoother start up and operation.

In addition, we always help our partners establish their mobile money presence through a structured approach. The starting point for this is to establish an understanding of existing distribution networks (for example those of fast moving consumer goods [FMCG] companies or petrol station chains) to help seed an agent network.

In general agents are not difficult to find but we have to satisfy ourselves that they are trustworthy. The challenge we find lies in ensuring their liquidity; making sure they have sufficient cash in the till and e-money value on the mobile to meet demand.

We also advise partners on marketing strategies to build trust in their scheme. In many cultures this is best achieved through word-of-mouth, passed on as a result of positive experiences among customers. Monitise combines this with radio advertising and roadshows, which can be as simple as buses going from town to town presenting short plays to inform people of the new services being offered.

It is very much the job of the financial regulators in each market to provide a safe financial services environment for its citizens. In an environment of global crises, more regulators are becoming wary of innovations that could destabilise their economy.

Banks are also waking up to the potential of customers who do not use many bank services and are moving in to target this segment with new products.

The combination of these factors is making it increasingly difficult for financial regulators to accept a mobile money service that is offered by a non-financial service provider. In light of this fact, Monitise sees regulators around the world only allowing entities that have been previously authorised to offer mobile money services. At Monitise, we have no problem with this.

It's clear that mobile operators understand the mass distribution of products at very low price points, which provides the perfect model for mass mobile money deployment allowing mobile payment services to be easily led by operators. However, when it comes to mobile financial services beyond basic payments (savings, for example), a close collaboration with the banks is required. At that point, mobile operators may well have to allow banks to take the lead.

Partnership between banks and mobile operators – Making it work

Quan Le, GMX Consulting Ltd

Mobile devices have the potential to transform the way banks interact with current and future customers. By 2015 it is estimated that 20 percent of the US population will have used mobile banking. However, more exciting developments are taking place in the developing world. In Kenya for example, M-PESA is being used by 18 million people, or almost half of the population, just five years after its commercial launch. What banks need to take note of is that in markets like Kenya, telecommunications companies (telcos) are spearheading the development of mobile financial services (MFS) (i.e. mobile banking and mobile payments). Indeed, financial services are no longer the preserve of banks alone as, increasingly, they find themselves competing with other non-traditional players like mobile network operators (MNOs)/telcos, retailers and social networks.

With a few exceptions, banks have largely been on the back foot when it comes to MFS. For mass adoption to take place, banks need to find a model to work effectively with telcos and other players in the MFS ecosystem.

Collaboration between banks and mobile operators is at the centre of MFS adoption in both developed and developing markets (such as Africa). Other barriers to successful deployment include consumer adoption, regulation, business case and 'killer apps' (applications that can be used across different mobile phone platforms), although their impact differs among markets. The table below summarises these challenges:

Challenges to a successful MFS roll-out²⁰

Developed markets		Developing markets
<ul style="list-style-type: none"> No immediate need, more of a lifestyle choice Those who have used mobile financial services see it as a key differentiator for banks 	Consumer adoption	<ul style="list-style-type: none"> Eager adoption as in many cases this is the only way to gain access to financial services Issues with protecting consumers through security features and payment guarantees
<ul style="list-style-type: none"> Regulated as e-money issuer 	Regulation	<ul style="list-style-type: none"> Single biggest hurdle – some central banks see MFS as a banking service (e.g. Nigeria) Other markets such as Kenya, the Philippines, South Africa and India have different approaches to regulation
<ul style="list-style-type: none"> A tricky issue Collaboration often fails due to different cultures between banks and operators Trusted service managers for mobile payments 	Collaboration among players in the ecosystem	<ul style="list-style-type: none"> A complex issue Some regulators force collaboration between banks and telcos (e.g. South Africa)
<ul style="list-style-type: none"> Banks still see this as an additive channel that drives cost-saving and customer loyalty Immediate revenue streams not identified so reluctant to invest heavily 	Business case	<ul style="list-style-type: none"> Profitable at scale - a new revenue stream For mobile operators: reduce churn (due to a majority of accounts being prepaid)
<ul style="list-style-type: none"> Apps with simple functionality but rich in customer experience Still in need of 'killer apps' 	'Killer apps'	<ul style="list-style-type: none"> Simple, intuitive technology solutions suitable for affordable handsets (STK, USSD2, SMS etc.) Addressing an existing need (e.g. P2P (people-to-people) transfers, top-ups, bill payments)

²⁰ The acronyms included in this table are: STK is a Satellite Tool Kit, a physics-based software package that allows for complex analysis and sharing of results in one integrated solution. Unstructured Supplementary Service Data (USSD) is a protocol used by mobile telephones to communicate with the service provider's computers.

What often makes collaboration between banks and telcos difficult, apart from regulatory constraints, is the issue of customer ownership. When a customer initiates a MFS transaction, they use the mobile handset and telco network to notify the MFS operator of the transaction. The MFS operator then needs to complete the transaction using both the telco network and the payment network (which banks operate). The MFS operator could be a bank, a telco or indeed a completely separate third party. The transaction could be an extension of a bank account (mobile banking) or from a mobile wallet which was previously funded using cash, vouchers or bank accounts (mobile payments). It is the interface between mobile and payment networks that make a MFS transaction happen, yet at the same time, many banks are reluctant to invest heavily in this new channel. Some central banks (like the Central Bank of Nigeria) also take the view that MFS transactions are by nature payment transactions and therefore should only be reserved for banks.

Another factor that makes collaboration difficult is culture. Banks by their very nature are conservative and generally slower in adopting new technologies. On the other hand, telcos are natural adopters of new technologies, especially a technology like MFS which is built upon existing infrastructure and is viewed as a value-added service to help reduce customer turnover. It is a big deal for a payment transaction to fail but a text message not being delivered is rarely a cause for great concern.

The motive behind a MFS partnership is also important. Banks often view MFS as an additive, non-revenue generating channel and in a difficult economic environment find it challenging to justify a major investment. On the other hand, the mobile operators' business case is more favourable. Yes, a MFS service is likely to bring in new revenue streams but the immediate benefit is a significant reduction in customer turnover which means protecting existing telecom revenue streams.

These factors all contribute to a potentially challenging partnership between banks and telcos in offering MFS. The result is that successful MFS roll-outs follow vastly different models around the world. The most successful MFS roll-outs, such as M-PESA and G-Cash (Philippines), have all been mobile operator-led. A combination of an enabling regulatory environment, market dominance (Safaricom, operator of M-PESA enjoyed a more than 50 percent market share with an extensive agent network) and strategic foresight of management means that today Kenya and the Philippines are the most advanced countries in terms of MFS, from a number-of-users viewpoint.

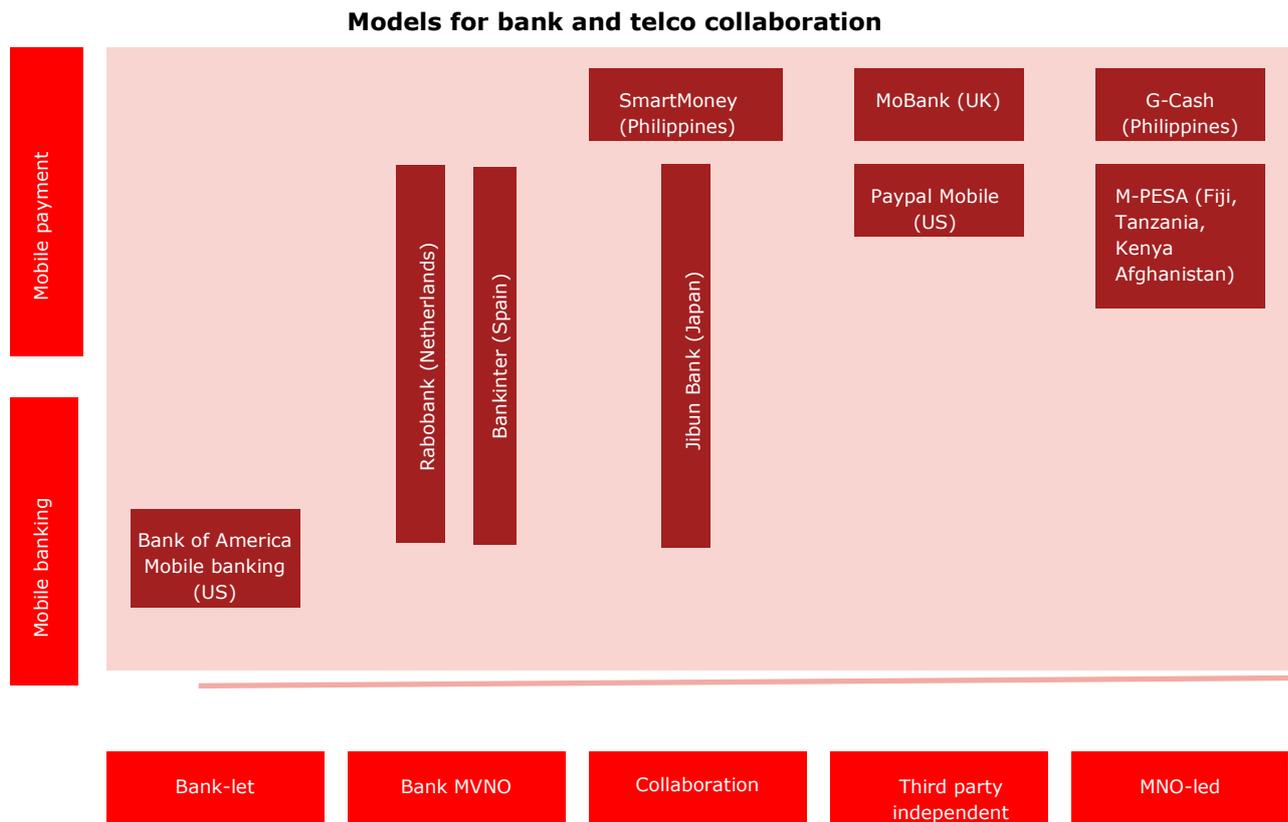
At the other end of the spectrum, some bank-led MFS schemes have also enjoyed considerable successes. Bank of America (BoA), for example, has seen the number of users increase tenfold between 2007 and 2010. Although MFS has not brought much revenue to the bank, it certainly has helped the bank improve its customer service, evidenced by a sharp increase in customer satisfaction. It has also enabled BoA to attract new customers.

Some banks, like Rabobank (a Dutch bank), obtained a Mobile Virtual Network Operators (MVNO) licence in order to penetrate the new lower income segments of the market. They offer normal mobile services alongside MFS and have seen a strong response from customers. They found that the ability to control the pricing of mobile services makes it easier to promote MFS. This ability allows the bank the flexibility to tailor offers based on a bundle of services such as voice, data and financial services in order to take advantage of cross subsidies between them.

Then there are MFS operators who are neither banks nor telcos such as PayPal mobile, Google Wallet in the US and Monitise in developing countries, including some in Africa. These players present potential challenges for MFS operators as their motives (or business objectives) are different from banks or telcos. Google Wallet seeks to maintain and extend the company's grip on customers' online experience. Monitise however works with banks, telcos and merchants to create an 'ecosystem' which then enables banks and telcos to offer MFS without significant investment upfront (a 'white label' service).

Finally, there are bilateral partnerships between banks and telcos. Sometimes this is as a result of regulation such as the case of Vodacom in South Africa. Telcos have no choice but to work with banks as the regulators do not allow them to offer payment services directly to the population. Smart Money in the Philippines is another example.

All of these models of collaboration are represented in the table which appears below.



Despite inherent challenges (and some regulatory constraints) in a partnership among players in the MFS ecosystem, what is clear is that each party should focus on their core skills and comparative advantage. For banks, the core skills include regulation (e.g. anti-money laundering and Know Your Customer due diligence), settlement, cash management, bank and trust account operations. For mobile operators, their comparative advantage includes: their customer base (there are more mobile account holders than bank account holders), their distribution network (agent network for cashing in/out), technology and marketing expertise, particularly targeting lower income segments. Focusing more on the tangible assets that each party brings to the table would be far more productive for MFS partnership than emotive issues such as customer ownership. The reality is that no single party owns their customer base.

Returning to M-PESA, at first Kenyan banks were resistant to the idea of a non-bank player offering what they viewed as the domain of banks – payment services. A few banks were, however, more open to embracing M-PESA operating the trust account and acting as super-agents from the outset. These banks are reaping the benefits today of transaction fees and floats on trust accounts. These benefits are substantial because a large proportion of Kenyan GDP is now flowing through M-PESA. Customer ownership in the traditional sense has thus become obsolete.

Banks who fundamentally rethink their mobile strategy towards an emerging business model will stand to reap the rewards of increased revenue, customer acquisition and loyalty. Customers are already seeing mobile banking as a key differentiator when choosing to access financial services. Many predictions suggest that 2020 will be the year when 'mobile' will be dropped from the term 'mobile banking' as customers will not just expect but assume this is the natural way to do banking.

Drivers of change? How best can technology companies support improvements in the distribution of financial services?

Cicero Torteli, Freddom

The words 'change' or 'improvement' should be something that runs through the veins of every technology company and constitutes part of its DNA, essentially central to its core business. It is this that enables technology companies to introduce change and innovation in the world. When it is assumed that the limits of possibility have been reached, they transform impossibility into the realms of possibility.

Who would ever think that people could be recognised by their iris or that cell phones could be used to make purchases in a supermarket? These are just a few examples of 'changes' and 'improvements' that technology companies can provide because innovation is their core business.

Technology companies enable big institutions to harness the transformative power of innovation to resolve problems in new ways.

When technology companies developed mobile payment systems, this completely changed the way merchants interact with their customer. Mobile money services add value to the shopping experience. For example, as customers make a store purchase, suppliers can simultaneously send a discount coupon to the customers' mobile phones

In short, what financial institutions should remain focused on is specialising in financial services allowing technology companies to keep pushing the frontiers of financial service innovation in order to improve the way improvement services are delivered.

When Freddom spearheaded its operations in Lagos (Nigeria), it found that most of the population was unbanked. For example, it was common practice for households to remit money through bus drivers. Credit cards are scarce and the devaluation of the local currency (Naira) had meant that ordinary people were forced to physically hold excessively large amounts of cash. It has become an increasingly impractical situation as merchants require armoured vehicles to collect cash deposits several times a day due to the high volumes of cash being transacted in a given working day.

Paradoxically, more than 50 percent of the population has access to mobile phones where text messaging is commonplace. Therefore, the mobile phone provided a platform to transfer money, make purchases and even to pay bills. Through SMS, USSD or a user-friendly application ('app') which attaches a mobile phone to a simple current account, Nigerians can now use their cellphones as a wallet. They can complete transfers, make purchases and add airtime top-ups directly from their own hand-held devices.

Even though this innovation represented a new and more efficient way for ordinary Nigerians to complete cash transactions, there were a number of obstacles to overcome. Historically, there was a general mistrust of banks due to past banking failures and as such a reluctance to deposit hard-earned cash into bank accounts. There was also the challenge of shifting mindsets to build the confidence needed to convert cash into electronic money and view the latter as reliable and a valid means of tender.

The process of providing mobile money services in Brazil proved to be more of a challenge than in Nigeria. Freddom had to independently (without a partnership with an established financial service provider) secure an operating licence. In our experience, adapting to new financial service technology is less complex with the support of an aggregator. In Nigeria, this role was played by the Central Bank of Nigeria (CBN). The presence of the central bank meant that there was much more clarity (for stakeholders operating in the industry) in terms of articulating goals and objectives. For example, connectivity between various mobile money operators is considered as a high priority in the Nigerian context. In Brazil, a standard model of operation has yet to be agreed upon. There are several mobile money deployments which operate independently in an uncoordinated fashion which has led to sluggish progress.

In summary, improving the distribution of financial services requires a fresh and simple approach which prioritises the needs of those needing improvements in financial access and allows key stakeholders to deploy their comparative advantage.

Improving the distribution of financial services: Mobile payments services and access to insurance

Christine Hougaard, FinMark Trust

With the first wave of the mobile money revolution in full swing, many financial institutions are exploring the scope for mobile phones and vendor networks as tools for the distribution of other financial services. This essay looks at the role of mobile phones in insurance distribution.

Why mobile insurance distribution?

Microinsurance is regarded as insurance accessed by the low-income market²¹ and is becoming increasingly topical worldwide. Recent research²² estimates that the global outreach for microinsurance exceeds half a billion potential policy-holders. In many developing countries, the traditional insurance market serves a limited proportion of the low-income population and, as such, microinsurance is critical for developing the insurance market²³.

While microinsurance adheres to insurance principles, it is not 'business as usual' for insurers. It generally entails lower premiums and therefore creates an imperative for cost-effective distribution at scale. As with many financial inclusion-orientated services, the business viability of microinsurance is all about volume. Hence, how to reach clients, collect premiums from them, service their policies and, ultimately, pay their claims, are central objectives. In this way, the quest for cost-effective distribution makes microinsurance a catalyst for innovation in insurance distribution more broadly.

Traditional low-cost distribution options such as group policies sold to large employee groups are frequently not available for microinsurance, as the target market is typically not employed in the formal sector and is often unbanked. Many policyholders also live in rural areas outside the reach of conventional financial sector infrastructure such as branches and ATMs. The emphasis in microinsurance distribution innovation is therefore on identifying and unlocking alternative distribution channels²⁴ to reach the mass market. Alternative distribution channels can include retailers, community groups or market-based/trader associations, microfinance institutions, agricultural processors buying from smallholder farmers, cooperatives, utilities or any other third party 'client aggregators' that: (i) have an existing client or membership base through which potential insurance customers can be reached; (ii) have an existing infrastructure for distribution; and (iii) where possible, already have some kind of financial transactions with clients or members (e.g. for repayment of loans, settlement of bills, making purchases or payment of membership fees). In this way, insurance distribution can piggy-back on the existing reach, infrastructure and payment mechanisms of third party 'aggregators'.

Among such potential aggregators, mobile network operators are endowed with the single biggest reach into the mass market in most developing countries. For example, in a country like Tanzania there were 407 bank branches and 798 ATMs in 2009²⁵, compared to a mobile airtime network that has now grown to tens of thousands of vendors.

²¹ International Association of Insurance Supervisors and Microinsurance Network, Joint Working Group on Microinsurance, 2007. Issues in Regulation and Supervision of Microinsurance, Basel, IAIS, www.iaisweb.org

²² Churchill, Craig & Reinhard, Dirk (eds.), 2012, Protecting the Poor: a Microinsurance Compendium – Vol. II. Munich: Munich Re Foundation, http://www.munichre-foundation.org/StiftungsWebsite/Projects/Microinsurance/2012Microinsurance/Microinsurance_Compndium+Vol+2.htm

²³ FinScope consumer surveys (see www.finscope.co.za) over recent years show, for example, that only 5% of Ghanaians and 6% of Kenyans and Zambians have insurance, while only 1% of the Nigerian and 2% of the Pakistani population have insurance.

²⁴ For an overview of alternative insurance distribution models, see Smith, Anja, Smit, Herman, Chamberlain and Doubell, (2012), New frontiers in Insurance Distribution. Protecting the Poor: a Microinsurance Compendium, Volume II, http://www.munichre-foundation.org/NR/rdonlyres/32A72E26-0162-4B40-8085-34F317147321/0/MicroinsuranceCompendium_VolIIPart7.pdf

²⁵ According to data captured in the IMF Financial Access Survey database, <http://fas.imf.org/>

Mobile insurance applications²⁶

There are at least three potential ways in which the mobile phone can be used as a tool to improve insurance distribution²⁷:

- **Communication tool:** insurers are increasingly finding SMS technology an effective way of communicating with current and prospective clients. SMS is used for client enrolment by agents and confirmation of policy activation by the insurer, to acknowledge receipt of premiums paid in cash, or to remind existing policyholders that their premium payments are due. Some insurers also use SMS for marketing.
- **Payment platform:** mobile payments, through an m-wallet, can be an ideal way to collect premiums from customers who are unbanked or prefer the convenience or relatively lower cost of mobile payments. An insurance premium payment will be a person-to-business payment in the same way as, for example, buying pre-paid electricity would be. This involves using the payment platform provided by mobile money, without any formal distribution partnership between the insurer and mobile network operator. In some instances, especially where mobile payment models are not yet available in a country, insurers also enter into agreements whereby insurance premiums are deducted directly from the customer's airtime balance.
- **Distribution channel:** using the mobile airtime vendor distribution network to sign up insurance customers has become increasingly popular. This is typically done through a partnership between a mobile network operator and an insurer.

Regulatory considerations

Mobile insurance distribution creates a number of considerations for regulators:

- **Electronic contracting and signatures.** Where customers enrol via their mobile phones, the permissibility of electronic contracting and digital signatures arises. In countries where there is no electronic commerce law in place, this may be problematic. Some providers solve the problem by using agents to solicit hard copy documents and signatures, and then submit documents to head office. However, the client still receives electronic confirmation of policy activation and further communication, premium payments and claims lodging can be done via a mobile phone. Typically, the insurance regulator's focus is on the sales process, ensuring that no consumer protection concerns arise, rather than on the mode of contracting, which is a matter of contract law or e-commerce law. Therefore, coordination between different authorities in this regard will be important.
- **Agent space and requirements.** The main regulatory questions with regard to the use of third party agents to distribute insurance are: (i) who may act as an agent; and (ii) what requirements must they fulfil? Typically, insurance legislation allows for brokers and agents, as well as direct distribution by insurance companies. There may be a need to reconsider intermediation regulation to accommodate a variety of distribution functions to be fulfilled by third party sales forces. There may also be a need to reconsider the competence/qualification requirements on such aggregators, proportionate to the nature, scale and complexity of the business that they intermediate. An increasing phenomenon is the convergence of the distribution of various financial services through the same agent networks. For example, mobile vendors may sell airtime, be mobile money agents, sell insurance and sign up customers for a savings account as bank agents. The danger in such a convergence scenario is that there will be silos of regulation between different types of regulators, with each regulating their own function and subjecting the same agent to different layers of regulation. A coordinated approach is therefore desirable.

²⁶ For a full overview of emerging practices in mobile insurance, see Tellez, C., 2012. Emerging practices in Mobile Insurance. GSMA Mobile Money for the Unbanked, http://www.gsma.com/developmentfund/wp-content/uploads/2012/07/MMU_m-insurance-Paper_Interactive-Final.pdf.

²⁷ For further discussion and examples, see Smith, Anja, Gerelle, Eric, Berende, Michiel & Chelwa, Grieve, 2012. The technology revolution in microinsurance. Protecting the Poor: a Microinsurance Compendium, Vol. II. Munich: Munich Re Foundation, http://www.munichre-foundation.org/NR/rdonlyres/2BD528F9-E9C4-4996-B0B9-E22616E2EB99/0/MicroinsuranceCompendium_VolIIPart8.pdf

- **Know your customer (KYC) requirements.** KYC requirements are typically contained in Anti-Money Laundering/Combating Financing of Terrorism (AML/CFT) legislation and will be applicable to all accountable institutions as defined in legislation. Depending on the jurisdiction, this may require customers to submit proof of identification and proof of address. Where customers cannot produce the requisite documentation, it may serve as an access barrier. Where KYC requirements for mobile agents distributing financial services are concerned, the main regulatory considerations are: (i) whether KYC can be fulfilled by an agent or needs to be conducted by the financial institution itself; (ii) what the exact KYC requirements need to be, proportionate to the typically low money laundering risk associated with risk-only insurance premiums; and (iii) whether records may be captured and stored electronically. Once again, this is an area where coordination between the relevant authorities – the insurance regulator, the Financial Intelligence Unit, the Central Bank and others, under the policy coordination of the Ministry of Finance – will be essential.

Conclusion

The mobile revolution is already making its mark beyond mobile payments. Markets develop rapidly to respond to opportunities. It is important that regulators recognise the potential for mobile distribution of other financial services such as insurance and allow innovation in this regard, while coordinating effectively to monitor market trends and tackle consumer protection concerns.

SECTION THREE: THE FUTURE OF BRANCHLESS BANKING

Promoting financial inclusion: Is mobile money the magic bullet?

Hemant Bajjal, MasterCard Worldwide and Sal Karakaplan, MasterCard Worldwide

Understanding financial inclusion

Financial inclusion is the process of ensuring access to basic financial products and services to meet the payments, savings, credit, insurance, financial management and investment needs of underserved segments of society at a reasonable cost and in a transparent manner. Access to payments services, in the form of a payment or a financial account provided by a bank or non-bank financial institution, is seen as a fundamental stepping stone to full financial inclusion.

The role of mobile money in promoting financial inclusion

Recent innovations in mobile money services have significantly improved access to financial accounts where individuals can use their mobile phones to make person to person (p2p) mobile money transfers and pay bills. In countries such as Kenya, Uganda and the Philippines, where the adoption of mobile money services has been hugely successful, it has served as an important mechanism to replace cash dominated transactions with an effective non-cash payment method. In such environments, to a large extent cash is in the process of being displaced, however, the financial inclusion needs of the users have only been addressed in a narrow sense. Full financial inclusion by definition requires that the users of the financial accounts not only have access to payments services but also have the ability to save and have access to other financial services.

According to recent data released by the World Bank²⁸, gaining access to financial services does not necessarily mean that such services will be adequately used. In other words, individuals who do not use financial services are not necessarily constrained by access to or participating in the financial sector. The survey shows that 65 percent of unbanked adults do not use financial accounts due to: lack of money; the insufficient suitability of financial products and services; and/or high transaction costs. Nonetheless, this does not mean that mobile money services cannot induce behaviour amongst the unbanked that leads to higher usability of financial accounts including savings.

In recent research supported by Financial Sector Deepening Kenya (FSD Kenya), it was estimated that 34 percent of the users of mobile money services maintained a small balance in their financial account, and that the majority were cashing out their transfers almost immediately. While maintaining a very small amount in mobile money accounts will not have the desired financial inclusion effects, a large number of the unbanked cannot help but save only small amounts due to low and variable incomes. The 34 percent of registered users who held money in these accounts maintained a balance of approximately US\$4. About half of these users indicated that one of the reasons for this was to have funds to send to family, relatives or friends when they needed assistance. The other main reason for holding funds in this way was for safety and security. A much smaller proportion indicated that they were 'saving' (approximately one-sixth of users).

The key question here is that if the 'usability' of financial services were to be improved by allowing more payment functionality, would it promote higher financial inclusion? The intuitive answer is yes, and this is based on the notion that a large number of the unbanked simply do not use such accounts on the grounds that they are not suitable for their needs. Most mobile money programmes today offer a narrow range of services including airtime top-ups, person to person (p2p) transfers and limited bill payments capability. The Mobile Money for the Unbanked programme at the GSMA (an association representing the interests of mobile operators worldwide) estimates that globally, out of 5.5 transactions per active user each month, 3.3 are for airtime top-ups.

²⁸ World Bank: Measuring Financial Inclusion – The Global Findex Database; April 2012

In Mastercard's view, the usability is low due to the limited nature of services that can be offered through the existing closed-loop models for mobile money service²⁹. According to the GSMA, there are 130 mobile money programmes in the world today, spread over 75 countries. MasterCard estimates that there are approximately 50 million mobile money wallets associated with these programmes. Furthermore, only eight programmes out of the 130 have over one million active users, and of these six are in East Africa, where mobile money services in their existing form are most popular. Amongst these forms, usability remains high due only to the fact that such accounts serve as an effective mechanism for p2p payments. This is not the case for the remaining 122 programmes around the world.

To improve the usability of mobile money service accounts beyond a certain population segment or geography requires that the programme is designed in a way that improves usability for the population segment in question, as opposed to relying on what has worked elsewhere. This requires a good understanding of local market dynamics and consumer needs. In designing such products, careful consideration should also be given to solutions that serve multiple payment needs of the user including person to person remittances (domestic and cross-border), airtime top-ups, bill payments, merchant payments and other financial services such as interest-bearing savings accounts, loans and insurance.

Barriers to achieving full financial inclusion

In the closed-loop mobile money environment that we know today, the impact of mobile money services on financial inclusion is marginal as a wide range of payment and financial services are not possible. Broader financial inclusion can be achieved through establishing a mobile ecosystem that can support both closed-loop as well as open-loop schemes³⁰ and can provide interoperability between scheme operators.

However, such mobile ecosystems are still in the early stages of development and continue to face regulatory or market barriers, including:

Legal and regulatory framework: non-existent or underdeveloped regulations that clearly define the role of payment service providers – both banks and non-banks - in the issuance of electronic money instruments.

Business case for large-scale investments in mobile money services: the business case for a full-blown mobile ecosystem is still speculative and unless scale is secured, the service providers will continue to leverage existing infrastructure.

Lack of standards: unlike more established forms of electronic payments, there is a lack of global standards that will help establish vibrant mobile ecosystems.

Underdeveloped business to customer (B2C) programme management practices: mobile network operators (MNOs) are new to financial services provision and lack the capability to adequately manage various aspects of the mobile money value chain including customer acquisition, account activation, promoting wider usage and customer retention.

Conclusion

Achieving full financial inclusion requires going beyond the narrow range of payment services to a broader range of services which will ensure that the account users find these suitable to their needs. Evidence has shown that existing mobile money arrangements have a limited scope in providing a wide range of services. A concerted industry effort is required with support from policymakers to facilitate the establishment of mobile ecosystems which provide both interoperability as well a wide range of services. Until this happens, it is hard to say that mobile money is a magic bullet for promoting financial inclusion.

²⁹ For the purpose of this document, a closed-loop mobile money service is defined as the one where a mobile network operator's agent network provides cash in and cash out services to only its customers and not any other MNOs mobile money subscriber base.

³⁰ In contrast to closed-loop networks, open-loop schemes enable the customers of a mobile money service to make payments to persons and/or merchants belonging to same operator as well other operators participating in the network.

Interoperability: Help or hindrance?

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In 2007 there were perhaps four mobile money services worldwide. Five years later there are 140 deployments live and another 92 planned³¹. The industry is still immature, without standards of best practice or harmonised user experience. Nevertheless, expectations are high and mobile money needs to mature quickly. Perhaps the biggest threat to this new industry's growth comes from the many national regulators who are independently defining how this embryonic industry should operate without considering its actual ability to comply. For example, arbitrarily mandating 'interoperability' (the way in which mobile money platforms interconnect) could set back the progress of mobile money by years and limit the social and economic empowerment benefits it brings.

Defining mobile money

Mobile money is different from mobile banking in a number of ways and it is important to be clear about which is which. A simple definition is:

- Mobile banking uses conventional bank accounts which can be accessed using mobile phones with one account per customer.
- Mobile money uses a single pooled bank account for all the participants in the scheme with a *mobile money account management system* keeping track of how much of the money in that account belongs to each customer.

This article is only concerned with the latter.

Connectivity with other payment systems – A help

Most mobile money services currently work as closed-loop systems, unconnected to other payment services. This has the advantages of minimising costs, simplified operations, and providing real-time transactions. Due to the fact that mobile money was originally designed for the unbanked as a replacement for cash, a closed-loop system was fine. However, there is a growing trend of services opening up interfaces. Examples include: allowing bill payments with real-time notification to the billers' accounting system and transfers between mobile money accounts and conventional bank accounts. This is an essential next step for the mobile money industry as it seeks to provide alternative full service accounts for the unbanked and under-banked. As mobile money gains traction in some countries, services are being developed to capitalise on people's ability to buy this way, such as micro-insurance, micro-savings and loans. Small businesses want to be paid in mobile money, then transfer their takings directly to their bank account rather than run the risk of carrying cash. For these services to reach scale, mobile money needs to be connected directly to payment systems, just as bank accounts are.

However, the biggest driver for this connectivity comes from 'dual economies' with large banked and unbanked populations, and where many unbanked groups are transacting with high-tech systems on a daily basis:

- Where customers shop the tills are fully integrated with reporting, reconciliation and stock-keeping systems; for these shops to become mobile money agents or merchants, they need their tills and systems to be connected.
- A key source of earnings for the unbanked is the banked population who do not want to withdraw cash at an ATM (or bank branch), then make deposits at a mobile money agent before paying their staffs' wages; they need to transfer funds from their bank account directly to their own or their staffs' mobile money accounts.
- Government payments can be delivered cheaply and more efficiently by mobile money compared to many other means, if payments can be administered like a payroll system.

Therefore, it is clear that mobile money needs to be connected to other types of payment systems.

³¹ <http://www.gsm.org/developmentfund/programmes/mobile-money-for-the-unbanked/>

Interoperability between mobile money systems – A hindrance

Intuitively, interoperable mobile money systems sound like a good thing. Bank accounts interoperate; telecoms accounts interoperate; so why not develop these interconnected platforms in mobile money? There are compelling reasons why this nascent industry is not ready for this and will not be for several years.

The biggest issue is cost. Interoperability implies a version of a four-party banking model with account issuers and merchant/agent acquirers with an independent payment switch between them. Suddenly, the simple closed-loop system becomes much more complex with more administration and two additional entities levying charges. Few mobile money services have yet to make a profit and cannot sustain a drop in revenue, so they will need to increase the cost to their consumers who are unlikely to view higher transaction fees as enhancing economic empowerment or providing a value for money service.

Then there is the anti-competitive effect of interoperability. Companies offering mobile money are doing so to differentiate themselves from competitors in their core business, and the winners in mobile money are the services with the biggest, best functioning agent networks. Interoperability requires sharing agents, so their competitive edge is destroyed. Worse still, successful companies which invested heavily in creating an agent network will see it given to their competitors for free. They are unlikely to regard this as motivation to invest in developing mobile money.

The technical creation of suitable switches is relatively simple. What has yet to be addressed are the scheme rules of the switching operation. The real-time nature of these transactions means that careful thought must be given to responsibilities and liabilities when things go wrong. Furthermore, there is as yet no standardisation of user experience, messaging or functional flows for transactions. By way of illustration, a single point of sale device for agents to perform transactions is not possible when each mobile money issuer mandates that the customer has a different experience and each acquirer expects a different agent process flow and means of verification.

Finally, it should be noted that interoperability is not a demand driven by consumers. Nearly every commercial mobile money service allows users to send money to unregistered recipients, i.e. 'off-network'. It is also common for customers to have multiple sim cards, so they can have accounts with multiple providers if desired. Certainly, it provides a little more convenience to have money going directly into their accounts, but it is hardly a necessity.

In light of all of this, it is unclear why there is a call for hasty interoperability. The market is far from ready and interoperability should happen only when mobile money is a much more established, successful and mature industry with a critical mass of customers to bear the cost of the additional complexity. Forcing premature development can only be a hindrance.