





## **MOBILE MONEY SUMMIT 2010**

# Unleashing the Power of Convergence to Advance Mobile Money Ecosystems

Piya Baptista and Soren Heitmann







Written by Piya Baptista and Soren Heitmann

Designed by Alison Beanland

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## **MOBILE MONEY SUMMIT 2010**

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## **Defintions and Acronyms Used in this Report**

## **Acronyms**

**AML:** Anti Money Laundering **B2B:** Business-to-Business

**CFT:** Combating Financing of Terrorism

e-money: Electronic Money

G2P: Government to Person KYC: Know Your Customer MNO: Mobile Network Operator m-money: Mobile Money MFI: Microfinance Institution m-wallet: Mobile Wallet NFC: Near Field Communication P2P: Person-to-Person

### Definitions<sup>1</sup>

**Agent:** A person or business that is contracted to facilitate transactions for users. The most important of these are cash-in and cash-out (i.e. loading value into the mobile money system, and then converting it back out again); in many instances, agents register new customers too. Agents usually earn commissions for performing these services. They also often provide front-line customer service—such as teaching new users how to initiate transactions on their phone. Typically, agents will conduct other kinds of business in addition to mobile money. The kinds of individuals or businesses that can serve as agents will sometimes be limited by regulation, but small-scale traders, microfinance institutions, chain stores, and bank branches serve as agents in some markets. Some industry participants prefer the terms "merchant" or "retailer" to describe this person or business to avoid certain legal connotations of the term "agent" as it is used in other industries.

Anti Money Laundering/Combating Financing of Terrorism (AML/CFT): A set of rules, typically issued by central banks, that attempt to prevent and detect the use of financial services for money laundering or to finance terrorism. The global standard-setter for AML/CFT rules is in the Financial Action Task Force (FATF).

**Cash in:** The process by which a customer credits his account with cash. This is usually via an agent who takes the cash and credits the customer's mobile money account.

**Cash out:** The process by which a customer deducts cash from his mobile money account. This is usually via an agent who gives the customer cash in exchange for a transfer from the customer's mobile money account.

Electronic Money (e-money):<sup>2</sup> Electronic money is defined as a stored value or prepaid product in which a record of the funds or value available to the consumer for multipurpose use is stored on an electronic device in the consumer's possession. This definition includes both prepaid cards (sometimes called electronic purses) and prepaid software products that use computer networks (sometimes called digital cash). In the case of card-based products, the prepaid

value is typically stored in a microprocessor chip embedded in a plastic card or "smartcard." On the other hand, network based products use specialized software installed on a standard personal computer for storing the "value." The loading of value onto the device is akin to the withdrawal of cash from an ATM, and the product is used for purchases through a transfer of value to the merchant's electronic device.

**Float:** The balance of e-money, physical cash, or money in a bank account that an agent can immediately access to meet customer demands to purchase (cash in) or sell (cash out) electronic money.

**Know Your Customer (KYC):** Rules related to AML/CFT which require providers to carry out procedures to identify a customer.

**Liquidity:** The ability of an agent to meet customers' demands to purchase (cash in) or sell (cash out) e-money. The key metric used to measure the liquidity of an agent is the sum of their e-money and cash balances (also known as their float balance).

Interoperability: The ability of users of different mobile money services to transact directly with each other. Given the technical, strategic, and regulatory complexities that enabling such transactions would entail, no mobile money platforms to date are fully interoperable with each other. However, many mobile money services allow users to send money to non-users (who receive the transfer in the form of cash at an agent).

**Mobile Banking:** When customers access a bank account via a mobile phone; sometimes, they are able to initiate transactions.

**Mobile Money (m-money):** A service in which the mobile phone is used to access financial services.

Mobile Money Ecosystem:<sup>3</sup> Networks of organizations and individuals that must be in place for mobile money services to take root, proliferate and scale up. They are characterized by interdependence and coordination among any number of actors—such as MNOs, banks, airtime sales agents, retailers, utility companies, employers,

regulators, international financial institutions and donors, and even civil society organizations.

**Mobile Payment:** A movement of value that is made from a mobile wallet, accrues to a mobile wallet, and/or is initiated using a mobile phone. Sometimes, the term "mobile payment" is used to describe only transfers to pay for goods or services, either at the point of sale (retail) or remotely (bill payments).

Mobile Money Provider:<sup>4</sup> Any institution that plays the lead role in a mobile money deployment. In this report, "mobile money provider" refers to MNOs, banks or third parties that provide mobile money services.

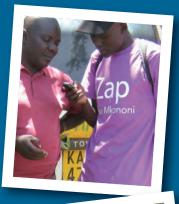
**Mobile Money Transfer:** A movement of value that is made from a mobile wallet, accrues to a mobile wallet, and/or is initiated using a mobile phone.

Mobile Wallet (m-wallet): An account that is accessed using a mobile phone. A mobile money provider can offer a wide range of services to facilitate financial transactions via a mobile wallet. These services could include remittances, person-to-person money transfers, bill payments, proximity payments, airtime top up, loan repayments, etc

**Unbanked:** Customers, usually poor, who do not have bank accounts or transaction accounts at formal financial institutions.

**Under-banked:** Customers who may have access to basic transaction accounts offered by formal financial institutions, but still have financial needs that are unmet or not appropriately met. For example, they may not be able to send money safely or affordably.

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Kent E. Lupberger
Senior Manager,
Telecom and Information
Technology,
Global Infrastructure & Natural
Resources Department,
International Finance
Corporation

## **FOREWORD**

The 2010 Mobile Money Summit marked an important moment in the evolution of the mobile financial services ecosystem. No longer is mobile money an enticing possibility or an unproven concept. In the two years since the first summit, mobile money has provided millions of people around the world with access to finance, and demand continues to increase.

Over the next two years, the number of people with access to a mobile phone but not to traditional financial services is expected to grow from one billion to 1.7 billion, and Mobile Network Operators (MNOs) are poised to earn \$7.8 billion in direct and indirect revenues from more than 350 million clients.

Whether it is for paying salaries, reimbursing suppliers, or sending remittances home from abroad, mobile money is allowing people to conduct transactions at lower cost and with greater efficiency than physical transactions. With mobile money, users are moving out of cash-based informal systems and are fully participating in the formal economy, making it a key way to improve livelihoods.

Clearly, mobile money is proving its potential.

But scaling up the industry to meet demand requires a deep understanding of money, individual market nuances, stakeholders, strategies, and roadblocks to success.

The Mobile Money Summit 2010 was convened to help the industry better understand how the ecosystem has grown and how each of these factors affects mobile money's role in developing a larger e-money economy: one in which cash wallets are replaced with mobile wallets and other electronic payment instruments.

To continue its growth and begin to fulfill the promise of an e-money economy, industry stakeholders must work together to unleash convergence, drive customer acquisition, and refine enabling technology. Mobile money must have a clear appeal to consumers, the public sector, and the private sector.

The Mobile Money Summit 2010 identified a number of key lessons for all of the industry's stakeholders. Primary among these was that mobile money's development value rests in its ability to facilitate financial sector inclusion. To do so will require financial institutions and MNOs to work together with regulators on a country-by-country basis. Providers will need to introduce basic mobile money services where they do not already exist and foster the consumer's appetite for more sophisticated services. Effective distribution networks must be developed in order to reach critical mass in the industry.

IFC has produced *Unleashing the Power of Convergence to Advance Mobile Money Ecosystems* to capture these and other key lessons learned during the Mobile Money Summit 2010. The report serves as a valuable resource to anyone who seeks to understand the state of the mobile money industry – or to anyone working to grow the industry further, a goal shared by IFC and the entire World Bank Group.



his report is written on the occasion of the third Mobile Money Summit, held May 24-27, 2010 in Rio de Janeiro, Brazil. The discussions at this year's summit reflect the evolution in the mobile money industry since the first summit was held two years ago. As GSMA Mobile Money Director Gavin Krugel stated, "We have evolved from hype in 2008 to regulatory and other challenges in 2009 to a deeper level of conversation based on real experience in 2010." This experience is based on an increase in the number of mobile money deployments worldwide from 60 in 2008 to 120 in 2009 to 160 as of August 2010. Of these 160 deployments, 73 are live and 87 are expected to go live in 2010 (see Mobile Money Tracker on pages 32-33).

This increase in the number of mobile money deployments, as well as the continued diversity of speakers and participants at the Mobile Money Summit, indicate that no further

convincing is needed of the mobile money opportunity. The Rio Summit brought together 58 speakers and 643 participants from 63 countries. Approximately 51% of attendees were senior management. As in previous summits, the participants represented every sector of the mobile money industry—including financial service institutions, mobile network operators (MNOs), development organizations, technology vendors, regulators and academics.

The Mobile Money Summit 2010 Report aims to provide readers with a high level summary of the key discussion points and takeaways from this year's conference. It is based on the main conference proceedings on May 25 and 26, interviews with 23 speakers and other experts during and after the conference, and on pre- and post conference events, namely the Mobile Money for the Unbanked Working Group on May 24 and the Leadership Forum on May 27. The report explores

"Mobile money sustainability can be achieved through the development of the full ecosystem but must be done jointly: banks, governments, MNOs, merchants, regulators."

George Held, Group Marketing Director, Zain



## E-money: Setting the Electronic Money Context in this Report

Mobile money services are financial services accessed via a mobile phone. The mobile phone is the newest of many vehicles used to access financial services. Credit cards are a well-established mechanism for electronic payments, and it has been possible to send money orders since the telegraph. Current mobile money deployments provide

> person-to-business payments, like purchasing air time top-up, or international person-to-person remittance services, for

MTN Mobile Mone) example. These services initiate an electronic transaction that is functionally similar to the act of swiping a credit card in a store or sending money with Western Union. All these services enable

individuals to engage the formal financial system through electronic transactions.

However, the mobile phone is what makes mobile money services revolutionary.

Mobile phones provide individuals a convenient access point to financial services, permitting the user to initiate electronic transactions from anywhere and send them anywhere, including other mobile phones. More significantly, the money used through mobile money services is fungible so that someone can loan a friend lunch money, for example, in a way that credit cards cannot possibly do. Because the store of value is maintained and potentially spent or re-sent anywhere, this describes electronic money (e-money), not simply

an electronic transaction. As retailers and individuals use and accept e-money, it will become more common and more useful in the marketplace and decrease the need to cash-in or cash-out.

Mobile money describes this broad collection of financial services that are accessed by mobile phones, enabling individuals to spend, accept, store and transfer electronic money. Mobile money services will soon serve the breadth of today's daily financial transactions, potentially making mobile phones the primary access point for daily economic transactions and electronic money the primary means of settling those transactions.

select themes, practices and challenges to unleash the full potential of mobile money for the benefit of consumers worldwide—the banked, the unbanked, and the under-banked. The report is

divided into four sections: strategy, marketing, operations and growth. Each section presents one to two questions and insights drawn from the discussions at the Rio summit. These include:

SECTION	KEY QUESTIONS
Strategy	<ul><li>How do we unleash the power of convergence?</li></ul>
	<ul> <li>What is the recipe for launching and sequencing services?</li> </ul>
Marketing	How do you drive customer acquisition and usage?
Operations	• How do you develop and implement an optimal agent network strategy?
	• How does technology enable a successful mobile money deployment?
Growth	How can we accelerate the acceptance of mobile money services?

Previous Mobile Money Summit Reports focused on 'developing' and 'accelerating' mobile money ecosystem development. This report focuses on 'deepening and broadening' mobile money ecosystems. Cross-sector partnerships among MNOs, banks and others are leading to the emergence of deeper, more interconnected networks and new entrants are broadening these networks. Partnerships between MNOs and banks in particular facilitate the development of the mobile money industry as a whole, in a way that these individual industries may not easily accomplish. Cooperatively growing this new mobile money industry marks a critical, powerful point of convergence between banks and MNOs. In his opening remarks, Krugel asked participants to "unleash the power of convergence." In other words, to think about what we can do together to jointly target new market segments. "It's not you or us," he says, "it is us together that will create a market for mobile money." By joining forces, the telecommunications and banking industries have the power to change the way people across the globe transact, and especially to address the financial needs of the poor.



**Strategic Partnerships:** The key to unleashing the power of convergence is strategic partnership between banks and MNOs. Together, these partners have the infrastructure capability and institutional know-how to meet regulatory challenges and successfully launch a mobile money service. But clear roles and dedicated leadership are required for a mutually beneficial relationship.

**Product Sequencing:** Each market has its own demands and constraints, implying there's no single recipe for launching a mobile money service, or even a clear answer for what that service should be. A successful service will meet customer needs and demand, but requires a deep knowledge of the market.

"MNOs have the customer base and understand mass consumer behavior. Banks want to go down-market and tap this wider opportunity utilizing more cost-effective methods of service delivery. With the aligned objectives of increasing access to financial services at lower cost, MNO-bank partnerships will be an underlying theme for the next five years."

RIZZA MANIEGO-EALA, PRESIDENT, G-XCHANGE INC.

## How do we unleash the power of convergence?

### Partner for Power

"Mobile money has the potential to impact billions of people globally," observes George Held, Group Marketing Director, Zain. This potential lies at the intersection of modern telecommunications and traditional banking. This is the power of convergence: through union between these industries, mobile money can reach emerging and developed markets alike with tremendous opportunities in the form of new services for greater financial inclusion. It is no coincidence that all successful mobile money deployments in the world today involve an MNO and a financial institution. These strategic partnerships have emerged as best practice for unleashing the power of convergence.

Partnerships combine know-how when engaging the regulator and capacity to scale service offerings. Zain's Zap service boasts over 12 million customers<sup>6</sup> in Africa and the Middle East and partnerships with CitiBank and Standard Chartered were key factors enabling this level of international

scale. "The role of the financial institution gives the regulator comfort," explains Held, making them more likely to come to the table when approached by an MNO-bank partnership than an MNO alone. Partnership with financial institutions can also help expand services and reach new customer segments. In the Philippines, for example, Globe Telecom's mobile money platform provided by its wholly-owned subsidiary, G-Xchange Inc., has enabled millions of Filipinos living abroad to send money home to GCASH customers though partnerships with PayPal, BICS, Western Union, Xoom and numerous other large remittance companies. Rizza Maniego-Eala, President of G-Xchange Inc., describes such partnerships as huge assets for the growth and success of mobile money. These partnerships create the essential components of the foundation that will allow more financial services to be offered to mobile subscribers.

"What's the best way to get a mobile money service off the ground? Making sure you have the right ecosystem partners behind you."

Amit Mattatia, President & CEO, Trivnet



## Challenges for Partnerships

There are two fundamental components of a successful mobile money deployment: infrastructure and regulatory approval. "If your mobile money strategy wants to cover a mobile area and your network doesn't, that's a conflict," says Koji Ono, Chief Strategy Officer for Robi. The same type of conflict can arise when trying to launch a service that doesn't meet compliance standards. Being compliant is seldom trivial, in part because mobile money is so new that regulators have yet to fully codify how these services need to work. The

regulator's help and support must be sought early on to identify problems and find solutions, or else it will be impossible to get the mobile money deployment off the ground. MNO-bank partnerships are a perfect match to address mobile money needs, but both must be fully committed to the project's success. The challenges will push partners into unfamiliar territory and the mobile money service itself will likely represent a divergence from their respective core business models. Dedication from top management is a key factor for success.



G-Xchange Inc.'s partnerships enable G-Cash customers in the Philippines to receive money from relatives abroad.

Roles and responsibilities are also critical success factors. These need to be clearly defined, not only to meet regulatory challenges, but also to ensure that the partnership is based on shared risk and shared benefit. Coenraad Jonker, Director of Community Banking, Standard Bank of South Africa acknowledges that banks may be wary when approached by an MNO seeking to enter the financial services space. If the MNO seeks to provide mobile money as a value-added service to increase its margin or customer base, the bank is ready to help the partnership succeed. But if the MNO seeks to go deeply into financial services, the bank

may fear competition and back away. The required commitment to cooperation and shared benefit increases as services expand and partnerships grow. For MTN Ghana, there are nine partner banks. "It was a challenge to get everyone to understand why they needed to share," says Bruno Akpaka, General Manager, MobileMoney, MTN Ghana, "but now everyone understands their role" — and this has spelled success for the partnership, which expects over 2 million mobile money customers within the first year of deployment. In this example, MTN Ghana led the partnership due to its initiative, strong brand and customer base among a



## A Strong Partnership Solves Regulatory Challenges

The Méditel-BMCE Bank partnership identified a strong opportunity for mobile banking services in Morocco, with 31% of the population banked and 76% using mobile phones as of 2008. A careful study of the market found demand for money transfer, bill payment and airtime top-up services.

However, initial regulatory requirements posed a significant hurdle: money transfer services needed to be executed in dedicated premises that included guards and security cameras. With Méditel's agent network consisting of small grocers, these prohibitive requirements meant no widespread deployment. Other hurdles

included requiring that only bank employees register new users and that cash-in transactions happen only at bank branches. Banks needed to have governance control over IT infrastructure, imposing requirements on the partnership's business model. Finally, banks were responsible for payments accounting, but SIM cards and phones were inadequate identifiers.

Early on, Méditel and BMCE shared the project with the central bank to ensure regulation was addressed in the scope of the project. Many working sessions allowed the partners not only to comfort the central bank about security, KYC and

AML concerns, but also to improve the service offer.

Thanks to strong commitment and cooperation from both Méditel and BMCE top management, the parties managed to overcome these regulatory challenges by signing an "Intermediary in Banking Operations" mandate. This mandate allows Méditel to commercialize mobile money using its own agent network to collect money from customers on behalf of BMCE.

largely unbanked population. Strong leadership is critical, and this role must also be decided. But who leads is highly dependent on the market and the assets each partner brings to the table. While an MNO might lead in a market like Ghana, a bank might lead in a country where the ATM network vastly outstrips an MNO's agent network. In settings without a clearly dominant bank or

MNO, a third party may be best equipped to lead, such as in Ecuador where YellowPepper brings a host of mobile money ecosystem stakeholders and customer segments together under the tri-branded MONY service. Regardless of who fills the role, uniting under strong and dedicated leadership is necessary for stable, beneficial partnership.

# What's the recipe for launching and sequencing services and products?

## The Killer Application

There is no recipe for launching or sequencing mobile money services. However, the ingredients are well known: success is predicated on a thorough understanding of the market and target customer, a positive regulatory environment, and the right partnerships. Knowing each country's needs and regulatory nuances is critical to identifying the right opportunities, says Hesham Shawki, Chief Innovation and Partnership Officer for Orascom Telecom Holdings, but the use case is what ultimately drives and defines success. The problem with the use case is that the customer doesn't always know what they need or what they want to do when it comes to mobile money services. This can particularly trouble services that

target unbanked populations or those with low financial literacy, as these segments are less likely to demand formal financial tools or be familiar with their use. Herein lies the challenge of identifying the so-called killer application. But Richard Mwami, Head of MobileMoney for MTN Uganda, offers three basic principles for guidance: think big, start small, and scale fast. The right sequencing will present itself once initial services take off, says Aletha Ling, Executive Director and Global Head of Business Development for Fundamo: "Your customers will surprise you, not just on volume, but on demand for more services."





MTN agents interact face-to-face with customers to explain the product and service offering.

## Think Big

governments, among payments.

Mobile money services are generally offer numerous different services, but categorized in terms of the transaction there's no correct sequence or starting stakeholders: person-to-person (P2P) is point; the only requirement is that the perhaps the most basic and currently the service meet the customer's needs. Know most common. But many possible the customer, know how they spend applications and permutations exist their money, and how they want to businesses, spend their money. This can also mean customers and all stakeholders within the knowing how a customer wants to ecosystem, both horizontally and receive or send money. For Zain this vertically. Opportunities for mobile meant approaching Coca-Cola in money exist throughout the customer Tanzania—whose big, red trucks spectrum, from the base of the pyramid advertised a driver carrying cash along on up, says Roberto Rittes, Director for insecure, rural routes—and asking, "Do Oi Paggo, with products ranging from you have a cash collection problem?" traditional remittance services to With drivers receiving payments using microinsurance or government benefits mobile money, Coca-Cola's problem found a solution and Zap stimulated the An expanding deployment will likely broader ecosystem. Knowing how



## **Introducing Mobile Money Services in Diverse Markets**

In Kenya, Safaricom piloted M-Pesa as a service for microfinance borrowers to repay loans, but discovered that users wanted remittances. M-Pesa refocused to meet this stronger demand and quickly gained over 9 million customers. Safaricom is now expanding its offering by partnering with Equity Bank to launch M-Kesho, an interest-bearing micro-savings account held by Equity Bank and offered to M-Pesa clients. M-Kesho will be a powerful draw for customers looking for alternatives to "saving under the mattress." First reaching

a critical customer mass, Safaricom is now addressing the demand for savings products frequently seen in unbanked markets.

Developed markets need a different value proposition. O2, for example, targeted London to pilot its O2 Wallet, which combined three industries by placing an Oyster NFC transport card and a Barclay's credit card into a NFC enabled mobile phone. This created the "3D" experience that Andy Ramsden, Head of Payment Products at O2, describes as

necessary for creating a rich mobile commerce experience. Going beyond "2D" services is the sort of innovation that Ramsden believes is necessary to really excite customers and stimulate demand in developed markets, where people are highly banked and already use numerous financial services. Micro-savings accounts aren't going to excite customers in London, and mobile wallets currently lack demand in Kenya. The right mobile money service is the one that fits the market and is introduced at the right time.

REGULATORY TAKEAWAYS

Coca-Cola wanted their drivers to receive money made it an easy entry, says George Held, Group Marketing Director, Zain, who advises: remember corporate customers too, not just end-users, when looking for market opportunities. But opportunities are

everywhere, and Olga Morawczynski, Financial Literacy Project Manager at the Grameen Foundation's AppLab, reminds us that the poor are active money managers too, who show particular demand for savings products.

## Start Small

The first service should be one that enhances the provider's image or bottom line. It does not necessarily need to be complex or game-changing. MTN Uganda introduced a straight P2P money transfer service to bring people onto the platform, says Richard Mwami, Head of MTN MobileMoney in Uganda. For now, they're staying small, waiting for a critical mass of subscribers and double-digit penetration rates before offering more services. Rapidly introducing new products can overwhelm customers or risk diluting the service quality as managerial capacity may be forced to address competing demands across multiple new market segments. "Do a few things, but do them exceptionally well, as many customers don't tolerate complexity and lack of focus," says Hesham Shawki, Chief Innovation and Partnership

Officer at Orascom Telecom Holdings, and "once you have gained your consumers' confidence, and they are hooked to a simple but useful product, they will demand more from your technology." Prompted by this demand, the evolution of a company's mobile financial services roadmap for the unbanked could evolve as follows: sophisticated payments; money storage or accumulators; interest-bearing savings products; access to credit; and finally insurance. However, a mobile money financially targeting a sophisticated customer segment or developed markets may target convenience services and develop in a totally different direction. In Shawki's opinion, real success will happen at the crossroads of both segments. Again, there is no one recipe for product sequencing.

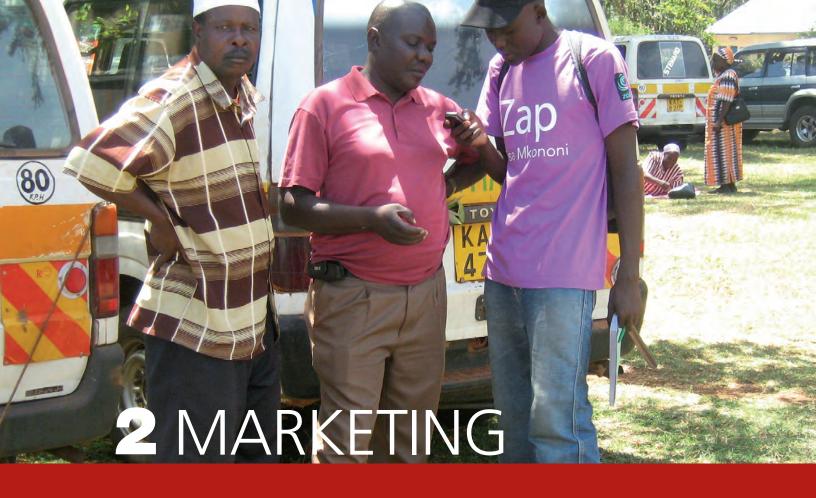
## Scale Fast

"Achieving critical mass is difficult—but it's the way to achieve success," says Rittes, who recommends establishing partnerships with large merchants first, thereby providing customers with more opportunities to use the product at the earliest stages. Indeed, focusing on merchant buy-in is one way to scale a mobile money operation quickly because if the merchants are convinced, consumers will use and adopt e-money. Or in the case of Roshan, focusing on a

government-to-person (G2P) strategy offers access to a large customer base. A critical mass is just the start. "You may get customer uptake with a given product; but you may not get the volume you really need without going beyond basic product offerings," says Mark Pickens, Microfinance Specialist for CGAP. Spanning customer segments and stakeholders is a crucial next step. True scale is marked by integrating the entire mobile money ecosystem.

 Who's accountable for regulatory compliance: the bank or the MNO? Different environments have different mandates. In Mexico, banks are held accountable; in the Philippines, the MNO must see that agents follow protocol. The regulator must clearly articulate which party is ultimately responsible in order for partners to define clear roles and responsibilities.





**Key Message:** Know the customer to craft a message that expresses the value-add of a service in a way the customer values. Then drive acquisition and usage with a strong marketing campaign.

"Consumers today demand cash because it's what they are used to. We have to help them understand that cash is not always the only option and perhaps not always the best option. It is our role to educate consumers that mobile money is safer, more secure and more convenient."

ZAHIR KHOJA, EXECUTIVE DIRECTOR OF MOBILE COMMERCE, ROSHAN

# How do you drive customer acquisition and usage?

"The final polish that converts a diamond from a rough stone to a precious gem in the eyes of consumers lies in direct and effective marketing, once fundamental elements such as organization of the company, distribution points and a certain regulatory framework are in place."

Rizza Maniego-Eala, President, G-Xchange Inc.

## ■ Know the Consumer: Sending the Right Message

Understanding the market is critical for identifying strategic product opportunities, but to drive uptake and usage within the market, you must know the customer. This is a necessity for successful marketing and strategy, echoed repeatedly at the Rio Summit. As a speaker put it, "You have to know your customers. If you do not know them, you cannot do business with them."

Knowing what potential customers in the market already do can reveal strong levers for driving adoption of mobile money services. In Kenya and Uganda, for example, Bruno Akpaka, General Manager of MobileMoney for MTN Ghana, explains that sending money back home is already a deep cultural characteristic. Remittance services are immediately understood, and relatively little effort needs to be spent educating the customer about something they already do, already know and already value. By comparison, in many West African countries, he says, money may be remitted, but without the same cultural expectations: "It's a help, but money transfer will not be the main driver in these markets. Each market needs to identify what will be the main driver." Knowing these types of cultural norms is instrumental in effecting customer uptake and demand for mobile money services. For example, Haridas Nair, Area Vice President of mCommerce at Sybase 365, Inc., points to Latin American markets,

where people already do mobile airtime transfers, so they are accustomed to sending something of value via a mobile phone. This provides a lever for marketing P2P-type services. Understanding the customer goes beyond providing the right service; it means knowing how to successfully communicate with the customer by offering that service in a way that resonates with what the customer already understands, and ultimately, what he wants to accomplish.

Use-based marketing messages have proven successful for many mobile money services precisely because they appeal to what a customer already wants to do. Simple ideas, like MTN Uganda's "now you can send money to your parents," offer a ready solution for a customer seeking remittance services without dwelling on the service itself. However, in many circumstances potential customers may be unaware of what they can do, making lifestyle messaging a better approach. Yellow Pepper's ad campaign offers customers "more time for yourself," through services that provide greater convenience by limiting the time spent waiting in line at the bank or making trips to the utility company to pay bills. The advantages of these conveniences are readily understood. It's a message that resonates with customers, and for many, "more time for yourself" means more time to earn money. For Roshan's M-Paisa in



Afghanistan, although the service also offers time savings benefits—and even safety benefits by enabling customers to potentially avoid difficult or dangerous transit—initial marketing campaigns that focused explicitly on ideas of convenience fell short. "Marketing convenience is difficult in Afghanistan," says Zahir Khoja, Executive Director of Mobile Commerce and Product Marketing for Roshan. "The population has never experienced it. They do not know what it tastes like." But if you're not going out to

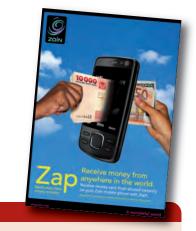
make a purchase or another possibly time-consuming transaction, you have more time to stay at home. Lifestyle benefits resonated strongly with M-Paisa's customers: by staying home and spending time with his family, a father is seen as being a better father, explains Khoja. The successful marketing campaign communicates the service in terms of what the customer already values, and is characterized as providing something the customer already desires.

## Marketing, Marketing, Marketing

The right message will grab the customer's ear, but this is only a piece of the puzzle: whether broadcasting that message (above-the-line marketing) or reaching out to individuals (below-the-line marketing), customer acquisition

and usage is critically driven by traditional marketing, and lots of it.

Branding is one of the first issues to address in developing a strong marketing campaign: the customer must trust the message and the product. The strongest



## **Differentiating Your Product From the Competition**

A Zain TV advertisement shows a payments evolution from shiny shells to plastic cards, stating, "throughout history, money has changed hands and forms." The next change comes in the form of Zap, bringing a "revolution in commerce." The message articulates that Zap is just another form of money, but better money. A marketing campaign needs to communicate the product's value

proposition with a message that resonates with the customer. That message should also help distinguish the product from the competition. Although multiple operators may offer mobile money services, today, the real competition is cash. M-Pesa's Send Money Home campaign differentiates itself from cash with a TV spot showing a young man in an office sending money home: cash bills fly from his cell phone

out to his mother, who is working in the garden back home. Clearly cash doesn't fly: M-Pesa is better. Different services and markets will have different value propositions, but articulating why mobile money is better than cash is both a compelling message and one that promotes the broader adoption of e-money.

REGULATORY TAKEAWAYS

- **Customer acquisition may** be accelerated with proportional KYC regulation. Unbanked and under-banked customers may face financial exclusion because they lack ID cards or the ability to verify IDs due to absence of faxes, photocopiers or even electricity. This segment engages in low-risk transactions, often below \$20. Regulators need to consider alternative KYC requirements for these groups, allowing further customer uptake while keeping risks low.
- For providers, incentivizing an agent network as a marketing and sales force is also a KYC issue. It must be done properly, to minimize perverse incentives: agents eager to earn a new customer commission may disregard KYC requirements, presenting a risk far greater than merely signing up frivolous accounts.

brand in a partnership should lead in the target market, although when multiple partners are strong in the market, a co-branded mobile money service may provide a better vehicle. And while a brand name may help bring a customer to the table, the technology device or platform itself is the ultimate custodian of the marketing campaign: it is the first experience a customer has upon registration. For many customers in the mobile money space, a complex user interface can immediately undermine customer uptake and belief in the product.

Nontraditional marketing channels can often be very effective ways to reach new mobile money customers, where the target market is more receptive to below-the-line marketing. For customers who may be illiterate, who lack any experience with formal financial tools, or who simply live in rural areas difficult to reach with broadcast marketing, direct sales engagement is the most successful channel. MTN Uganda, for example, credits its direct sales model with its soaring growth. Over 2400 trained sales agents travel significant distances into rural areas to promote mobile money and educate communities. By focusing on below-the-line methods, MTN Uganda achieved just short of one million customers in its first year. MTN Ghana employs other below-the-line tools, such as viral marketing and demonstration effects, by promoting service use and word-of-mouth advertising among employees, their families and existing customers. However, one of the strongest opportunities for personal engagement is leveraging existing agent networks to both sell and aggressively promote mobile money services: for MTN

Uganda 1,000 existing agents bolster its overall sales force.

Promoting ongoing service use is as critical as customer acquisition. YellowPepper encourages customer buy-in up front by charging a registration fee that preloads an equivalent amount of airtime. By putting something at stake, the customer is incentivized to try the service at least to get her money's worth. Loyalty schemes and airtime bonuses also promote ongoing usage, as do ancillary incentives, like micro-health and burial insurance coverage that YellowPepper customers receive with their initial registration fee. However, incentivizing players in the ecosystem can have significant knock-on effects stimulating customer uptake and usage. For example, if wholesale suppliers offer shopkeepers discounts or inventory bonuses when making purchases using mobile money, these small shops will encourage mobile money uptake among their customers simply by providing the ability to transact using mobile money services. This is the ultimate marketing providing customers opportunities to buy, spend and send using e-money. "We're introducing a new form of money into society: electronic money," says Andi Dervishi, Practice Lead, Electronic Payments and Marketplaces, IFC, "and every time such an endeavor has been attempted, success depended on whether sellers or merchants accept the new money as payment. Marketing that will drive acceptance by one seller can trigger adoption by a much larger number of buyers. Merchants influence consumer behavior and are the 'queen bees' of a transacting community."



**Agent Network Development:** Agents are the face of the mobile money service to the customer, playing the vital roles of customer education, sign-up and transaction support. A customer's interaction with an agent creates the trust that is critical to adoption and use. Building a trustworthy, ubiquitous, liquid and profitable agent network is key to a successful deployment.

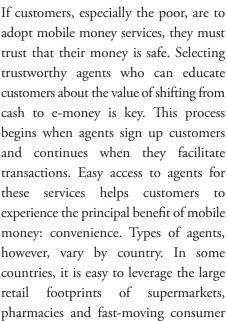
**Enabling Technology:** The technology platform is what enables mobile money operations to succeed: processing transactions, mediating regulatory requirements and binding partners and customers together. Technology will also help spur NFC-integrated phones and broader e-money ecosystems.

"We don't use the term 'agents,' but 'merchants.' The reason we believe the merchant is very important is the sustainability of the business model. If a person sells orange juice or magazines, and at the same time he is using mobile payments as a means of payment, it makes a sustainable business versus if his job is just to perform cash-in and cash-out."

GEORGE HELD, GROUP MARKETING DIRECTOR, ZAIN

# How do you develop and implement an optimal agent network strategy?





goods companies. In others, mobile money providers need to build relationships from with scratch independent "mom and pop" shops or select agents within existing mobile phone airtime distribution networks. GSMA's research indicates that successful operators grow agent networks in phases.7 In the first phase, an adequate number of agents need to be recruited throughout the market to support launch. In the second phase, resources need to be redirected from agent recruitment to customer acquisition. In the third and final phase, numbers of agents and customers need to grow in parallel.



"If a person wants to cash out his salary and the agent does not have the money, the SMS message on his phone has no value. Agent liquidity is paramount to the success of mobile money."

Zahir Khoja, Executive Director, Mobile Commerce and Product Marketing, Roshan

## Agent Liquidity and Profitability are Key to Customer Trust

Mobile money providers should pay strong attention to how their agents manage liquidity to ensure sufficient reserves of e-money are available for cash-in transactions, such as sending remittances, and physical cash for cash-out transactions, such as receiving remittances. An agent's inability to perform these transactions negatively impact customer trust. Richard Mwami, Head of MTN MobileMoney in Uganda, notes, "if your customer walks into the agent, he expects to find electronic money and cash. If he cannot find the money, he won't come back." Currently, customers in most mobile money deployments are performing more cash-out than cash-in transactions since there are not many places where they can use their mobile phones to pay with

electronic money for daily transactions. This reality makes it important for agents to have sufficient cash on hand. Ultimately, as Serge Elkiner, President of YellowPepper, notes, "enabling customers to use the system not only to cash-out, but also to make payments and purchases, is a way to address the liquidity challenge."

Agent liquidity and profitability are also closely related since maintaining fixed amounts of cash and e-money reserves, or float requirements, comes at a cost. An agent can face increased operating costs as a result of frequent trips to the nearest bank or other lender to withdraw cash; high interest rates on working capital loans needed to main float; or theft of physical cash by employees at an agent's store. All these factors can eat into an agent's profit margin. Recognizing that



M-Paisa agents in Afghanistan leverage Roshan's partnership with Azizi Bank to ease liquidity challenges.

agents in rural areas face bigger challenges in managing liquidity, some mobile money providers are offering higher commissions for cash-out transactions to compensate these agents for the extra time, effort and money needed to maintain the float. Commissions for customer registration, cash-in, cash-out

and other services to ensure a profitable agent model require judicious structuring. In general, an agent is likely to stop offering mobile money services if it's unprofitable. This in turn may lead a customer to lose trust in mobile money's reliability.

# Agent Training and Management Ensure a Positive and Consistent Customer Experience

"One must build in the cost of agent training and management to ensure that agents continue to adhere to established procedures, that the system remains intact, and that customers build and maintain trust," says Elkiner. While some providers use in-house staff for agent training and management, others outsource this function to third parties. Mobile network operator Roshan, in Afghanistan, has hired

an independent company, Top Vision, to train its M-Paisa mobile money agents on KYC/AML requirements to ensure regulatory compliance; branding and marketing to increase the visibility of the M-Paisa service and customer foot traffic; and liquidity management to ensure agents have sufficient float to maintain a positive and consistent customer experience.



### **Approaches to Managing Agent Liquidity Challenges**

"There's limited trust in the banking system in Afghanistan today, due to historical losses. We have one chance to prove the value to the customer. We need to build this trust," says Khoja. Roshan relies on a preferred agent approach on salary disbursement day to ensure that members of the Afghan National Police and employees of other entities availing of M-Paisa's salary transfer service are able to cash out. In this approach, Roshan informs

its preferred agents about the amount of money to be transferred and the locations where agents will need to have cash on hand. These preferred agents, in turn, contact other agents in their areas regarding expected cash needs. Roshan has also partnered with Azizi Bank, one of the country's largest banks, which has extensive nationwide reach, to ease the liquidity burden. About 70% of M-Paisa agents are within reach of an Azizi Bank

branch, so agents don't have to travel far to convert e-money into cash during high demand periods. In addition, if an M-Paisa agent runs out cash, M-Paisa customers may visit the Azizi Bank branch to convert their e-money into cash, which is especially important on salary disbursement days. In areas where there are no rural bank branches, Roshan ensures that a strong emphasis is placed on liquidity management during agent training.

 Regulators seeking financial inclusion should resist regulating m-money agents in the same way as traditional banks, since the former are often micro and small businesses who cannot bear the high overhead costs that can stem from compliance with complex regulations. Progressive regulatory frameworks balance the ground realities of branchless banking with mechanisms to ensure customer integrity, protection and security. The Philippines exemplifies what can be achieved by progressive regulation. In early 2010, the Central Bank of the Philippines allowed G-Xchange Inc., Globe Telecom's m-commerce subsidiary, to extend its remittance license to its accredited agents instead of each agent applying for

its own. This approval for a network-based license allows G-Xchange Inc. to expand its outlet network faster while taking full responsibility for the KYC/AML requirements of its network, continuing to fully comply with regulations that will ensure financial integrity and the protection of consumers.

# How does technology enable a successful mobile money operation?



## The Technology Glue

"Technology is what makes these projects possible," says Aletha Ling, Executive Director, Fundamo. But mobile money providers are not selling technology; in fact, the platform should remain largely transparent to the user. The service platform sits behind the scenes, yet acts as the glue that binds the mobile money ecosystem together. Well-established technology already connects the broader financial system and underpins global telecommunications, but two additional layers are needed for mobile money solutions: first, one to connect finance and telecommunications, and second, an applications layer that connects the customer. This applications layer bears

careful consideration, both because it shapes the customer experience and because there is relatively little industry precedent to guide developers. Mobile money operations need to consider the applications layer from the outset or risk alienating customers or limiting future service offerings. "Many deployments today fall short and do not engage application developers to the extent that they should," according to David Sharpe, Head of Products, Digicel Haiti. "Banks and MNOs need to do this, but the level of thought required for applications that sit on top of mobile money hasn't gone in."

Although attention must be given to

"An MNO as a carrier is an enabler. Google and Apple provide the platform, but put out to the development community for applications software. If Apple didn't have thousands of applications, it wouldn't succeed. The MNO needs to provide applications on top of its platform, too."

David Sharpe, Head of Products, Digicel Haiti



Agents play a key role in educating customers about the value of shifting from cash to e-money.

the applications layer, the first connective call may fail," said a speaker, "but a layer is perhaps more critical: the technical platform that turns money mobile. Here, both regulatory and business requirements are major for the platform's considerations technical specifications. Mobile money solutions are beholden to the same security and reliability mandates as traditional financial services. "A phone

financial transaction cannot go down." And this means flawlessly handling potentially millions of transactions an hour, and handling them with absolute security. "Security is the backbone of mobile money services," says Jean-Pierre Gressin, Head of Alliances & Partnerships, Oberthur Technologies, and lack of security carries enormous

## Integrating NFC into Phones and into the Market

NFC technology started with contactless cards and is now moving to fully-integrated mobile phones that will enable the full range of mobile and financial services that comprise the electronic wallet. ViVOtech, for example, is working to establish these electronic wallets in the marketplace by developing mobile payments, loyalty, merchandising and marketing applications software for existing and NFC-enabled mobile devices. By also deploying over 750,000 contactless and NFC payment terminals across 35 countries, ViVOtech is providing both the software and infrastructure necessary to bring mobile payments into the retail world. This will offer consumers numerous payment conveniences and give merchants new payment and marketing channels. ViVOtech's wallet software technology drove Citi's Tap and Pay pilot, for example, and this is helping to push payment systems to include and go beyond m-money services

to integrate the broader e-money ecosystem.

Pilots such as Tap and Pay help demonstrate that electronic wallets implemented through NFC-integrated phones have the potential to redefine the merchant-customer relationship to be more convenient, more targeted and more personalized. Consumers will benefit by having everything in one place, be able to enjoy an enhanced shopping experience, making quick payments and seeing lower risks associated with loss, theft or fraud. Customers may also take advantage of personalized in-store offers by tapping their NFC phones to smart posters, which similarly benefits merchants, who can engage in one-to-one marketing, offer instant, individualized offers, and better track customer loyalty. With networks and mobile money services intermediating these benefits, operators will see additional revenue sources as NFC-integrated phones and related services take hold in the market.



regulatory and financial risks. But reputational risks are even worse, says a speaker. "Lack of security destroys trust. Without trust, you do not get money or customers." Because the technology platform is what actually executes (or denies) transactions and tracks who sent how much money where, the platform itself is what ultimately enforces AML/CFT regulations, gains customer trust, and ensures system reliability—and it is potentially the reason these requirements could fail. Complicating

further, the regulations matters surrounding these issues may be different across deployments. Before launching a mobile money service, advises Haridas Nair, Area Vice President, mCommerce, Sybase 365, Inc., it is necessary to engage the regulator early on to establish a requirements plan. The best approach is to document the use case as clearly as possible, for both developers and regulators. The risk of not doing so, he says, is delayed regulatory approval, impacting launch of the service.

## Going beyond m-money: e-money

The mobile wallet will be the nucleus of the electronic money ecosystem, replacing the cash wallet with an NFC-integrated mobile phone equipped with mobile money services—a transition characterized as moving one's wallet out of the back pocket and into the phone in your front pocket. Pilot studies, such as Citi's Tap and Pay, have created test-bed ecosystems that demonstrate enormous potential for

mobile wallets, finding pilot self-adopters increased total purchase value by as much as 150% in response to the convenience afforded by their mobile wallets. E-money ecosystems are still some years away, awaiting broader infrastructure and mobile payments integration. Nevertheless, Edgar Dunn & Company, a payments consultancy, predicts that by 2015, 1.4 billion people will transact with electronic wallets.



Selecting the right technology vendor is critical.
Regulations are subject to change; technology
platforms that cannot accommodate regulatory
shifts may lead partners scrambling for new
solutions or deployments being unexpectedly
shut down. The technology vendor and the
regulator should be involved at the earliest
stages as technology ultimately enforces
regulations. Not doing so also risks delays or
prohibition from launch.





**Key message:** Accelerating the acceptance of mobile money requires providers to create services for multiple customer segments. It also requires strategic partnerships with corporations, governments and other organizations that have large geographic footprints.

"Any person should be able to walk out of the house with only a cell phone and be able to buy goods, receive remittances, pay bills, repay loans, and more. This is the future we envision and are building today."

SERGE ELKINER, PRESIDENT AND FOUNDER, YELLOWPEPPER

# How can we accelerate the acceptance of mobile money services?

"If one side of the challenge is how many people can get onto a mobile-based payment system, the other side is how many places they can use it. To displace cash, mobile payments must gain 'currency.'

The combination creates the network effect."

Sriraman Jagannathan, CEO M-Commerce, Airtel

## ■ More Services Bring More Users

A "killer application" that addresses a critical unmet need with a simple value proposition—combined with a big marketing push—can bring in early mobile money adopters. These early adopters, in turn, encourage others to try the service. But in due course, new services are needed to sustain and add value to existing customers as well as to draw in more diverse new customers. The business case for each service depends on the mobile money provider's core objectives specific and market conditions. In Afghanistan, mobile network operator Roshan's vision to contribute to the social and economic development of the country led the company to first introduce M-Paisa for microfinance institutions. Roshan's partnerships with Hope International and the First Micro Finance Bank Afghanistan (FMFB-A) are increasing the efficiency and security of the loan disbursement and repayment process reducing costs. partnerships, M-Paisa agents are part and parcel of the value proposition of the mobile money service to the end customer. For example, International's loan officers collect loan repayments in cash from borrowers and transfer bulk payments through M-Paisa agents to the branch office. This saves them significant time and eliminates the risk of carrying cash from one end of the city to the other. FMFB-A clients can receive loan disbursements and make loan repayments directly through

M-Paisa agents. This especially benefits borrowers who live a significant distance from an FMFB-A branch office. Roshan is seeing month-over-month growth of customers using M-Paisa mobile microfinance services. In addition to microfinance payments, Roshan offers P2P money transfers, airtime top-up, bill payments, and salary transfers via M-Paisa.

Although the mobile money industry has seen an increase in service variety, challenges remain in designing and implementing transformational mobile money services that go beyond money transfers and payments for the unbanked and under-banked. But Sriraman Jagannathan, CEO M-Commerce, Airtel, notes that "people will progress from payments to access to credit to savings, but first need to shift from an informal to a formal network via a digital payment mechanism. The microfinance industry has proven how low-income individuals become bankable; mobile, digital payments will have much wider impact."





Unbanked customers in Ecuador can use "Pichincha – MONY", an m-wallet tied to a pre-paid account offered by YellowPepper and its partners.

## Strategic Partnerships can Pull In More Customers

Building strategic partnerships with governments and corporations are two avenues to increase acceptance of mobile money among large numbers of individuals. Government partnerships can draw in customers across income segments, especially the unbanked and under-banked. Wage transfers, social transfers, and pension payments are the main G2P opportunities for m-money services.8 A CGAP-DFID study estimates that governments make regular payments, including social payments and wage transfers, to at least 170 million poor people worldwide. Partnerships with governments offer great potential to increase acceptance of mobile money services among millions

of customers and to drive greater financial inclusion, but require skillful relationship-building, careful structuring and patient implementation.

Corporate partnerships can also help achieve a critical mass of customers. A corporation's switch from cash to mobile payments to manage transactions across its supply and distribution chains can trigger a cascade of incentives for the adoption of mobile money services. In addition to making the flow of cash across the supply or distribution chain more efficient and secure, these mobile payment services give potential customers additional options for where and how they can use electronic money. In Tanzania, Zain Zap's partnership with

## An Ecosystem Approach to Mobile Money Services

YellowPepper, a mobile financial services provider, has created a neutral, universal platform that brings together consumers, retailers, utility companies, banks, MNOs and others to issue, manage and accept mobile payments. YellowPepper has over two million active users and its operations span Ecuador, Guatemala, Bolivia, Peru, Colombia, Haiti, the Dominican Republic and Panama. Banked customers use m-banking services tied to their bank accounts to access electronic banking services, pay bills, transfer

money and top-up airtime among other services. In Ecuador, YellowPepper has partnered with Banco Pichincha and Porta to offer "Pichincha – MONY," an m-wallet tied to a pre-paid account, to provide similar services to unbanked customers. Banco Pichincha's correspondent banking agents open and manage these pre-paid accounts. The company also offers a B2B mobile payments service to fast-moving consumer goods companies to transact electronically with small businesses in their distribution chains. In Ecuador, a

pilot is underway with 11 fast-moving consumer goods companies whose products constitute 85% of the product mix of mom-and-pop stores. YellowPepper is also exploring small lines of credit to enable payment on delivery of goods. "They can't pay the delivery truck now, but they can in two hours—with a micro-credit option there's no need for the truck to come a second time," says Serge Elkiner, President and Founder, YellowPepper.

**Regulatory frameworks** should strike a balance between policies and rules that create incentives for first movers to enter the mobile money services market, and those that enable a minimum level of interoperability to increase the value of such services to the end customer. As mobile money markets evolve from emerging to expanding to maturing stages, so will levels of interoperability. Andrew Zerzan, Regulatory Projects Director, GSMA, advises regulators not to force a business model. "If customers need interoperability, there will be a business case to satisfy customer demand," says Zerzan.



Coca-Cola demonstrates this approach. Zain Zap's B2B service enables mobile payments among several tiers of distributors from the large distributor to sub-distributors called Manual Distribution Centers to retailers. Each distributor in the chain can make mobile payments to Coca-Cola as soon as a truck makes a delivery, addressing the cash collection problems and security risks of delayed payments, accounting errors and counterfeit currency. Coca-Cola's use of mobile payments with its distributors could ultimately align the incentives for retailers to promote mobile payments to end customers. And aligning incentives is important if Zain Zap is to achieve its vision for a cash-free ecosystem. Zain's Held states that "Zain is looking at mobile commerce from a different perspective than traditional MNOs. The key differentiator is that Zain sees this service not as a one-off transaction, such as 'send money to your mother in a remote village,' but as a payment instrument." Zain is also building partnerships with other corporations like Chevron, Oilcom, Shell and Nokia in keeping with its belief that the corporate customer is an extremely important part of this cash-free ecosystem.

A corporation's adoption of mobile payments not only triggers cascading incentives across its supply or distribution chain, bringing a large number of people onto the mobile payments platform, but also enables people at different levels of the income

pyramid to transact with each other more easily and efficiently. This is important because "those who are banked interact with the unbanked and no matter how wealthy they may be, they interact in the same cash economy," said a speaker from the banking sector at the Mobile Money Summit 2010. As Hans Wijayasuriya, Chairman and Director of Dialog Telekom in Sri Lanka, elaborates, "Addressing the Base of the Pyramid (BOP) in isolation is probably a mistake. In the context of achieving financial or banking inclusion through mobile money deployments, mobilizing the Top of the Pyramid (TOP) toward interacting with the BOP is integral to the ultimate value and inclusion proposition to the BOP. The TOP and BOP need to be able to 'talk to' each other in terms of the underlying financial flows. This is what financial inclusion is about: integrating with the mainstream, as opposed to creating a niche application or micro-ecosystem for the BOP."9

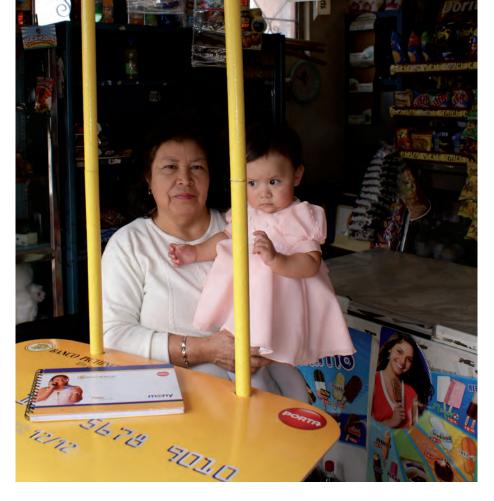


ver five billion mobile phone connections exist globally. By 2012, an estimated 1.7 billion people in developing countries will have mobile phones, but no access to formal financial services. Persistence, innovation and a level of risk-taking by current players and new entrants can bridge this gap. Research estimates mobile financial services could reach a previously unbanked market of 364 million by 2012.10 Providers should seek to go even further, to serve a whole range of customers as a truly inclusive mobile money ecosystem, enabling people from all walks of life to transact with each other more easily, securely and efficiently. Such an ecosystem will lead to new economic opportunities and growth across the income pyramid, reaching individuals, businesses and governments.

The mobile money industry continues to draw lessons from mature

deployments that are reaching millions of customers, such as M-Pesa in Kenya and G-Cash and Smart Money in the Philippines. At the same time, perspectives from Zain Zap in Tanzania, MTN in Uganda and other more recent deployments will deepen the mobile money services knowledge base. GSMA Mobile Money Director Gavin Krugel urges the industry to "be patient and give new deployments time to scale and mature so we can learn from them." A knowledge base built on lessons from multiple deployments will help industry players identify patterns in the drivers for scale and the common characteristics of successful business models.

Overall, regulatory disparity remains a challenge for the mobile money industry. Permissible models—bank-led, MNO-led or third party-led—vary widely by country. Progressive but prudent regulatory frameworks can respond to a



dynamic industry while encouraging growth and fostering new businesses. As Airtel's Jagannathan explains, "A regulator has two equally important abilities. One is to create inclusion in the society it seeks to regulate, but the other is to provide a secure environment for operations to be deployed, inspected and maintained. Getting these two abilities to grow simultaneously is essential. A financial regulator should also have the ability to wear two hats-one as a banking regulator and the other as a payment system regulator. Liberating payments from banking will allow widespread digital railroads to be built for banking to run on."

The Mobile Money Summit discussions in Rio indicate that strong alliances among banks, MNOs, third party players, technology vendors, regulators and others are needed to address current and future challenges.

These alliances establish a powerful convergence of industries that collectively enrich mobile money ecosystems. Summit participants indicated their commitment to build on past achievements and to forge ahead, using strategic partnerships to drive the introduction of mobile money services across the customer spectrum and keeping the customer's needs at the center. As Khalid Fellahi, Senior Vice President of Mobile Transactions Services, Western Union, says, "The driver is consumer needs. If you have a clear and simple value proposition and you allow people to conduct their basic transactions, then you can drive growth and open up new possibilities to consumers." These new possibilities will open doors everywhere, for all players in the ecosystem.

## Annex 1 Mobile Money Summit 2010 25.05.2010

09.00-10.30	Keynote 1: Operator Heavyweights Embrace Mobile Money Moderator: Siki Mgabadeli, Freelance Anchor and Producer, SAFM	14.00-14.20	Presentation: 'Institutional and Regulatory Framework for Mobile Money; What Makes Latin America Different?' Alvaro Martin Enriquez, Head of Innovation, AFI
09.00-09.20	Presentation: 'State of MM and key developments since 2009' Gavin Krugel, Mobile Money Director of the GSM Association	14.20-14.40	Presentation: 'Successfully Deploying Secure Mobile Money Services for the Banked and Unbanked' Jean-Pierre Gressin, Head of Alliances &
09.20-10.30	Panel: 'Operator Heavyweights Embrace Mobile Money' George Held, Group Marketing Director, Products and Innovation, Zain Rizza Maniego-Eala, President, G-Xchange, Inc.	4.40-15.00	Partnerships, Oberthur Technologies  Presentation: 'How Operators and Banks Partner to Enable Regulatory Approval' Nawal Gharmili Sefrioui, Senior Marketing Manager, Medi Telecom
	Richard Mwami, Head of MTN Mobile Money in Uganda, MTN Gavin Krugel, Mobile Money Director of the GSM Association, GSMA Hesham Shawki, Chief Innovation and Partnership Officer, Orascom Telecom Holdings		Panel Discussion Alvaro Martin Enriquez, Head of Innovation, AFI Jean-Pierre Gressin, Head of Alliances & Partnerships, Oberthur Technologies Nawal Gharmili Sefrioui, Senior Marketing Manager, Medi Telecom
10.30-11.00	Networking Break	15.30-16.00	Networking Break
11.00-12.30	Unleashing the Power of Mobile Money: One Day in the Life of a Mobile Money Service Moderator: Siki Mgabadeli, Freelance Anchor	16.00-17.25	New Success Stories: Untapped Areas of Growth and Opportunities for Mobile Money Moderator: Siki Mgabadeli, Freelance Anchor and Producer, SAFM
11.00-11.45 P tl tl <i>K</i> <i>D</i>	and Producer, SAFM  Panel: 'MNO Board Meeting – Unleashing the Power of Mobile Money: One Day in the Life of a Mobile Money Service' Koji Ono, Chief Strategy Officer, Robi David Sharpe, Head of Products, Digicel Haiti Sasha Natasha Monyamane, Group Executive:	16.00-16.20	Joint Presentation: 'Driving Accelerated Growth though Personal Banking and Enterprise Technology' Richard Mwami, Head of MTN Mobile Money in Uganda, MTN Aletha Ling, Executive Director, Global Head of Business Development, Fundamo
	AML, Ethics and Compliance, Vodacom Group Limited Sriraman Jagannathan, mCommerce CEO, Bharti Airtel	16.20-16.40	Presentation: 'Creating a sophisticated product portfolio'  Roberto Rittes, Director, Oi Paggo
11.45-12.30	Bruno Akpaka, General Manager, Mobile Money, MTN Ghana Panel – 'Mobile Money Ecosystem	16.40-16.50	Mini Presentation – Panel Introduction Olga Morawczynski, Consultant/Financial Literacy Project Manager, AppLab (Grameen Foundation)
	Meeting-Unleashing the Power of Mobile Money: One Day in the Life of a Mobile Money Service' Amit Mattatia, President & CEO, Trivnet	16.50-17.00	Mini Presentation – Panel Introduction Daryl Collins, Bankable Frontiers and Author, Portfolios of the Poor
	Jojo Malolos, Head of Financial Services, SMART Coenraad Jonker, Director of Community Banking, Standard Bank of South Africa Carlos Marmolejo, Director General, CNBV Andi Dervishi, Practise Lead, Electronic Payments and Marketplaces, IFC	17.00-17.30	Panel: 'Understanding the Unbanked Customer' Olga Morawczynski, Consultant/Financial Literacy Project Manager, AppLab (Grameen Foundation) Daryl Collins, Bankable Frontiers and Author,
12.30-14.00	Lunch		Portfolios of the Poor
14.00-15.30	What are we missing? The Key Challenges for a Successful Mobile Money Service Moderator: Siki Mgabadeli, Freelance Anchor and Producer, SAFM	17.30-17.35	Mark Pickens, Microfinance Specialist, CGAP  Day 1 Wrap up  Siki Mgabadeli, Freelance Anchor and Producer,  SAF

## Annex 1 Mobile Money Summit 2010 26.05.2010

09.00-10.30	Keynote 2: The Case for Banks Investing in Mobile Money Moderator Siki Mgabadeli, Freelance Anchor and Producer, SAFM	11.20-11.40	Presentation: 'Cash goes Mobile – A New Business Model and Open Ecosystem' Olivier Cognet, VP Strategy and Business Development, Nokia
09.00-09.15	Presentation: 'A Financial Services Perspective: Criteria for the successful deployment of mobile money programs in emerging and developed markets' Jose Maria Ayuso, Region Head of Products for	11.40-12.00	Presentation: Addressing the Concerns of Regulators, Operators, Banks and Consumers' Staffan Ljung, Director Analytics and Payment, Ericsson
09.15-10.30	Panel: 'The Case for Banks Investing in Mobile Money'	12.00-12.20	Presentation: 'Micro Credit Market Analysis' Peter Lyons, Equity Research Analyst, Oscar Gruss
	Jose Maria Ayuso, Region Head of Products for	12.20-12.30	Q&A
	LAC, Visa Andres Fontao Canovas, Head of Mobile	12.30-14.00	Lunch
Banking, Bankinter  Jeff Hindle, Product and Business Development, Scotia Bank Ignatius E. Cobbina, Head, Transaction Banking,		Business Model and Open Ecosystem' Olivier Cognet, VP Strategy and Business Development, Nokia  is exicces of a successful ney programs in narkets' and of Products for  Investing in  Investin	
	Fidelity Bank Limited Raul Moreira, Executive Manager, Banco do Brasil/ABECS	14.00-14.20	Uptake through Compelling Applications' Dave Parratt, Authorised Mobile Transactions,
10.30-11.00	Networking Break	14 20 14 40	
11.00-12.30	Strategies for Mobile Contactless Payments Moderator: Dr Nav Bains, Senior Projects Director, Mobile Money, GSMA	14.20-14.40	Enacting the Mobile Experience' Jürgen Wassmann, Regional Head, Innovative
11.00-11.20	Presentation: 'Strategies for Contactless Payments' Andy Ramsden, Head of Payment Products, 02	14.40-15.00	Presentation: 'Mobile Money: Overcoming Challenges to Achieve Business Success'
11.20-11.40	Near-Store and In-Store Mobile Marketing'  Develop	Development, Syniverse	
11.40-12.00	VivoTech  Presentation: 'Results and Lessons Learnt		Amol Patel, Head of Emerging Markets, PayPal
	from a Succesful Trial of Contactless Payments'	15.20-15.30	Q&A
	Satish Menon, Executive Vice President,	14.00-15.30	
12.00-12.30	Citibank  Panel Discussion:  Andy Ramsden, Head of Payment Products, 02		Moderator: Siki Mgabadeli, Freelance Anchor
	Mohammad Khan, President and Founder, VivoTech Satish Menon, Executive Vice President, Citibank	14.00-14.20	Large Market' Sriraman Jagannathan, mCommerce CEO,
11.00-12.30	Emerging Business Models for Mobile Money (Part 1) Moderator: Siki Mgabadeli, Freelance Anchor and Producer, SAFM	14.20-14.40	Viable Financial Services by Combining Distribution Channels, Mobile Technology and Real Time Transacting'
11.00-11.20	Presentation: More Connections through Financial Services	14 40 45 00	Coenraad Jonker, Director of Community Banking, Standard Bank of South Africa
	Hugo Janeba, Vice President of Marketing and Innovation, Vivo	14.40-15.00	Presentation: 'Overview of Entel's Succesful Mobile Money Service' Christopher Collins, Head of Evolution of Services New Products, Entel PCS

## Annex 1 Mobile Money Summit 2010 26.05.2010

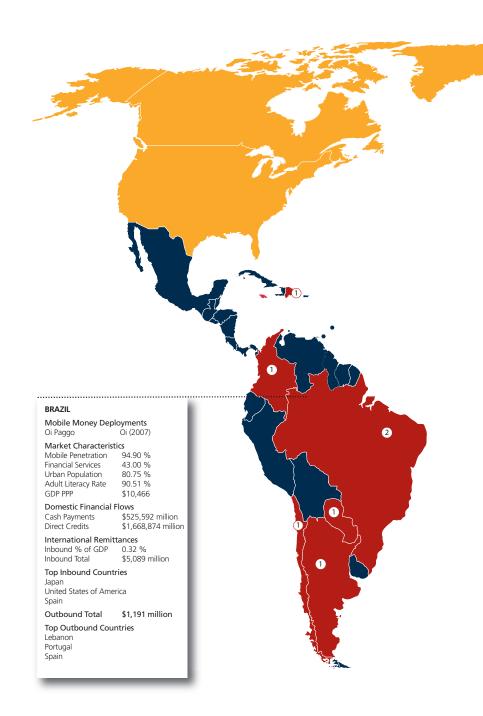
15.00-15.20	Presentation: 'Capitalizing on the Wave of Mobile Wallets'
	Anthony Belpaire, General Manager, Alcatel-Lucent Mobile Wallet
5.20-15.30	Q&A
5.30-16.00	Networking Break
5.00-17.00	From Money Transfers to Enhanced Mobile Financial Services
	Moderator: Mike Singh, Chairman of Indus-Americas and CEO of Telkom Caribe
6.00-16.20	Joint Presentation: 'The Customer Perspective: International Mobile Money Transfer'
	Khalid Fellahi, Sr Vice President, Western Union
	Odilon Almeida Senior Vice President and
	Managing Director, South America Region, Western Union
6.20-16.40	Joint Presentation: 'Orchestrating a Group Wide Mobile Money Rollout'
	Haridas Nair, Area VP, mCommerce, Sybase 365, Inc.
6.40-17.00	Presentation: 'Exploiting Niche Micro
	Payment Opportunities in a Western European Market'
	Frederic Schepens, Executive Vice President,
	Belgacom
5.00-17.00	Financial Agents: Coverage, Liquidity and Profitability
	Moderator: Siki Mgabadeli, Freelance Anchor and Producer, SAFM
6.00-16.15	Presentation: 'Lessons Learnt from
	Launching the First Mobile Wallet in Ecuador'
	Serge Elkiner, President, YellowPepper Holding
5.15-16.25	Panel – Intro:
	Xavier Faz, Senior Technical Advisor, CGAP
6.25-17.00	Panel: 'Financial Agents ñ The Special
	Ingredient for Mobile Money'
	Lauro Gonzalez, Center for Microfinance Studies at FGV, Coordinator, FGV
	Xavier Faz, Senior Technical Advisor, CGAP
	Zahir Khoja, Executive Director of Mobile
	Commerce and Product Marketing, Roshan
	Neil Davidson, Business Development Manager, GSMA
7.00-17.05	Networking Break
7.05-17.30	Closing Presentations
7.05-17.20	Closing Presentation 1
	Marcelo Erlich, Chairman, GSMA LATAM
7.20-17.30	Closing Presentation 2 Pablo Montesano, Director, New Businesses,
	TelefÛnica

## Annex 2 Mobile Money Tracker

## **About the Mobile Money Tracker**

The GSMA Mobile Money for the Unbanked programme (MMU) was launched in 2009 to accelerate the availability of mobile money services to the unbanked and those living on less than US\$2 per day.

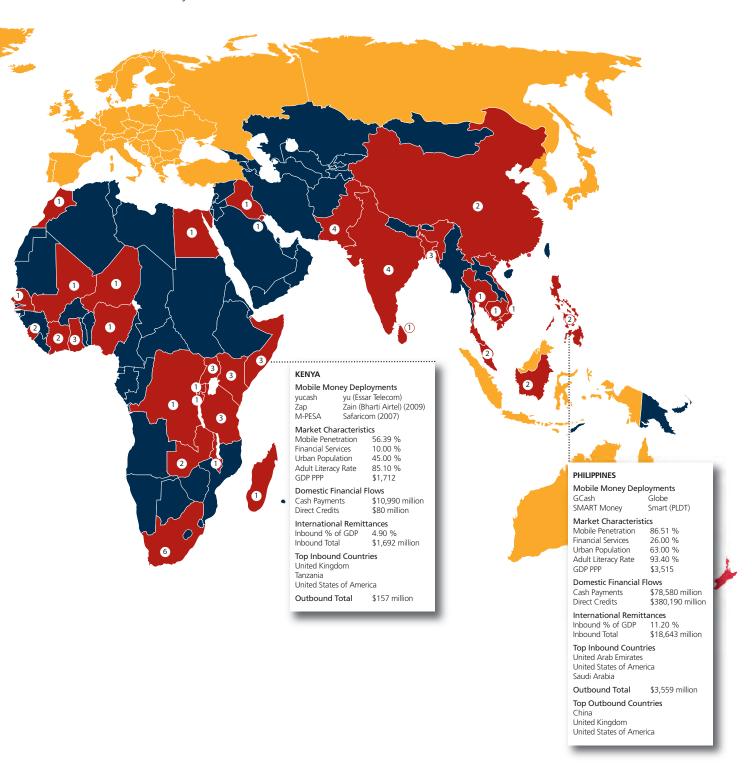
Supported by a grant from the Bill & Melinda Gates Foundation, MMU has the goal of reaching 20 million people by 2012. The MMU has launched the Mobile Money Tracker in order to track the progress towards reaching this goal – and ultimately making mobile money a mainstream business. This live tracker may be accessed at http://www.wirelessintelligence.com/mobile-money



## 73 LIVE DEPLOYMENTS

## 87 PLANNED DEPLOYMENT

This map presents the number of planned and live deployments tracked on the Mobile Money Tracker as of August 25, 2010. The numbers in circles are the number of mobile money deployments in the country.



## Annex 3 Endnotes

- 1. Unless otherwise noted, all definitions are from GSMA Mobile Money for the Unbanked (MMU). 2010. "Mobile Money Definitions." Online at www.mmublog.org (accessed August 25, 2010).
- 2. Bank for International Settlements (Committee on Payments and Settlements). 2004. "Survey of developments in electronic money and internet and mobile payments." CPSS Publication No 62.
- 3. Jenkins, Beth. 2008. "Developing Mobile Money Ecosystems." Washington, DC: IFC and the Harvard Kennedy School.
- 4. As defined by the authors for use in the Mobile Money Summit 2010 Report.
- 5. As defined by the authors for use in the Mobile Money Summit 2010 Report.
- 6. Zain. 2010. "Zain's Zap Mobile Commerce service takes GSMA top prize." Press Release dated February 16, 2010. Online at http://careers.zain.com/careers/zaingroup/News.aspx?PageID=6033 (accessed on August 25, 2010).
- 7. Davidson, Neil and Paul Leishman. 2010. "Building, Incentivising and Managing a Network of Mobile Money Agents: A Handbook for Mobile Network Operators." GSMA Mobile Money for the Unbanked Annual Report. Online at mmublog.org (accessed on July 1, 2010).
- 8. Pickens, Mark, David Porteous and Sarah Rotman. 2009. "Banking the Poor via G2P Payments." Focus Note 58. Washington, D.C.: CGAP. Online at http://www.cgap.org/gm/document-1.9.41174/FN58.pdf (accessed on July 1, 2010)
- 9. Wijayasuriya, Dr. Hans, Director and Chief Executive Officer, Dialog Telekom PLC. 2008. Personal communication (interview), May 14.
- 10.CGAP/GSMA. 2009. "CGAP/GSMA Mobile Money Market Sizing Study" [as presented in GSMA. 2009. "Mobile Money for the Unbanked: Annual Report 2009." Pages 24, 26.]

## Annex 4 Useful references

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Mas, Ignacio and Daniel Radcliffe. 2010. "Mobile Payments Go Viral: The Story of M-PESA." Lydian Payments Journal, July 2010.

Mas, Ignacio and Amolo Ng'weno. 2010. "Three Keys to M-PESA's Success: Branding, Channel Management, and Pricing." Journal of Payments Strategy and Systems, Forthcoming.

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Pickens, Mark. 2009. "Window on the Unbanked: Mobile Money in the Philippines." Brief. Washington, D.C.:CGAP.

Tarazi, Michael, and Paul Breloff. 2010. "Nonbank E-Money Issuers: Regulatory Approaches to Protecting Customer Funds." Focus Note 63. Washington, D.C.: CGAP, July.

### Websites:

Bank for International Settlements, Committee on Payment and Settlement Systems: www.bis.org/cpss

CGAP Technology Blog: http://technology.cgap.org

GSMA Mobile Money for the Unbanked Blog: http://mmublog.org

Payment System Development Group: http://www.worldbank.org/paymentsystems

## Annex 5 List of Interviewees

Aletha Ling, Chief Operating Officer and Executive Director, Fundamo

Amit Mattatia, President & CEO, Trivnet

Andrew Zerzan, Regulatory Projects Director, GSMA

Bruno Akpaka, General Manager, MobileMoney, MTN Ghana

Clara Veniard, Financial Services Associate Program Officer, Bill and Melinda Gates Foundation

David Sharpe, Head of Products and Pricing, Digicel Haiti

Gavin Krugel, Mobile Money Director, GSMA

George Held, Group Marketing Director, Zain Zap

Haridas Nair, Area Vice President, mCommerce Products, Sybase 365

Khalid Fellahi, Senior Vice President, Mobile Transaction Services, Western Union

Koji Ono, Chief Strategy Officer, Robi

Michael O'Brien, Senior Vice President, Business Development, Syniverse Technologies

Mohammad Khan, President and Founder, ViVOtech, Inc.

Pierre-Laurent Chatain, Lead Financial Sector Specialist, World Bank Group

Odilon Almeida, Senior Vice President & Managing Director, South America Region, Western Union

Richard Mwami, Head of Public Access and Mobile Money, MTN Uganda

Rizza Maniego-Eala, President, G-Xchange, Inc.

Santiago Vásquez, Central Bank of Ecuador

Serge Elkiner, President and Founder, Yellow Pepper

Sriraman Jagannathan, M Commerce - CEO, Bharti Airtel Limited

Wagner Fierro, Director of National Banking Services, Central Bank of Ecuador

Wameek Noor, Consultant, Finance and Private Sector Development, World Bank Group

Zahir Khoja, Head of Mobile Commerce – M-Paisa, Roshan



### THE CSR INITIATIVE, HARVARD KENNEDY SCHOOL

Under the direction of John Ruggie (Faculty Chair) and Jane Nelson (Director), the CSR Initiative at Harvard's Kennedy School is a multi-disciplinary and multi-stakeholder program that seeks to study and enhance the public contributions of private enterprise. It explores the intersection of corporate responsibility, corporate governance, and public policy, with a focus on the role of business in addressing global development issues. The Initiative undertakes research, education, and outreach activities that aim to bridge theory and practice, build leadership skills, and support constructive dialogue and collaboration among different sectors. It was founded in 2004 with the support of Walter H. Shorenstein, Chevron Corporation, The Coca-Cola Company, and General Motors and is now also supported by Abbott Laboratories, ExxonMobil Corporation, InterContinental Hotels Group, Microsoft Corporation, Nestlé, and SAP. www.hks.harvard.edu/m-rcbg/CSRI



#### INTERNATIONAL FINANCE CORPORATION

IFC, a member of the World Bank Group, fosters sustainable economic growth in developing countries by financing private sector investment, mobilizing private capital in local and international financial markets, and providing advisory and risk mitigation services to businesses and governments. IFC's vision is that people should have the opportunity to escape poverty and improve their lives. IFC invests in innovative local mobile operators and financial services institutions, while leveraging its international corporate relationships to develop, scale and replicate successful models throughout the developing world, with a focus on frontier markets. IFC also provides advisory services to enterprises that play vital roles in the development of sustainable mobile money ecosystems, including its investment clients and relevant SMEs, such as cash-in/cash-out agents and merchants. In FY10, IFC committed \$12.6 billion and mobilized an additional \$5.3 billion through syndications and structured finance for 528 investments in 103 developing countries. In the same year, advisory service expenditures totaled \$268 million of which 61 percent went to IDA countries. www.ifc.org



The GSMA represents the interests of the worldwide mobile communications industry. Spanning 219 countries, the GSMA unites nearly 800 of the world's mobile operators, as well as more than 200 companies in the broader mobile ecosystem, including handset makers, software companies, equipment providers, Internet companies, and media and entertainment organisations. The GSMA is focused on innovating, incubating and creating new opportunities for its membership, all with the end goal of driving the growth of the mobile communications industry. For more information, please visit Mobile World Live, the new online portal for the mobile communications industry, at www.mobileworldlive.com or the GSMA corporate website at www.gsmworld.com.



The Technology Program at CGAP works to expand financial services for the poor using mobile phones and other technologies and is co-funded by the Bill & Melinda Gates Foundation, CGAP, and the UK Department for International Development (DFID). CGAP is an independent policy and research center dedicated to advancing financial access for the world's poor. It is supported by over 30 development agencies and private foundations who share a common mission to alleviate poverty. Housed at the World Bank, CGAP provides market intelligence, promotes standards, develops innovative solutions and offers advisory services to governments, microfinance providers, donors, and investors. Learn more at www.cgap.org



DFID, the Department for International Development, is the part of the UK Government that manages Britain's aid to poor countries and works to get rid of extreme poverty. We work towards achieving the Millennium Development Goals – a set of targets agreed by the United Nations to halve global poverty by 2015. DFID works in partnership with governments, civil society, the private sector and others. It also works with multi lateral institutions, including the World Bank, United Nations agencies and the European Commission. DFID works in over 150 countries worldwide. It's headquarters are in London and East Kilbride.. www.dfid.gov.uk

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