



# Developing Mobile Money Ecosystems

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Jenkins, Beth. 2008. "Developing Mobile Money  
Ecosystems." Washington, DC: IFC and the Harvard  
Kennedy School.

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## **ACKNOWLEDGEMENTS**

This report draws heavily on the experience of participants in the inaugural GSMA Mobile Money Summit, co-sponsored by IFC, CGAP, and the UK Department for International Development, held May 14-15, 2008, in Cairo, Egypt. In particular, the author would like to thank the following individuals for generously sharing their time and insight in in-depth interviews during and after the Summit:

**Delwar Hossain Azad**, Deputy Director & Head, Financial Services, Grameenphone

**Ossama Bessada**, Chief Commercial Officer, Orascom Telecom

**Dr. Victor Dostov**, Managing Partner and Board Member, Paycash

**Dr. Allen Hammond**, Vice President, Ashoka

**Dr. Nick Hughes**, Head of International Mobile Payment Solutions, Vodafone Group

**Alex D. Ibasco**, Group Head, New Business Streams, Smart Communications

**Gautam Ivatury**, Manager, CGAP Technology Program

**Karim Khoja**, Chief Executive Officer, Telecom Development Company Afghanistan Ltd., Roshan

**Gavin Krugel**, Director, Mobile Money Transfer Programme, GSMA

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

**Dare Okoudjou**, Head, MobileMoney International Development, MTN

**Brian Richardson**, Chief Executive Officer, Wizzit

**Hiroshi Tamano**, Managing Director, DoCoMo Europe Limited

**Hannes van Rensburg**, Chief Executive Officer, Fundamo

**Dr. Hans Wijayasuriya**, Director and Chief Executive Officer, Dialog Telekom PLC

This report would not have been possible without the institutional and financial support of IFC and the Government of the Netherlands. The author extends her heartfelt thanks to IFC's Arata Onoguchi for conceiving of this project and nurturing it along based on his more than 20 years of experience in the telecommunications and electronic payments arenas. Thanks are also due to Jane Nelson (HKS), Jennifer Nash (HKS), Stephanie von Friedeberg (IFC), Sujata Lamba (IFC), Marina Solin (GSMA), Tim Lyman (CGAP), and Ignacio Mas (CGAP) for their thoughtful comments on various drafts, and to Alison Beanland for her excellent design.



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## Preface: The Occasion for This Report



Photographs: Courtesy of GSM Association

**“Mobile telephony offers tremendous promise to facilitate the flow of money among rural and poor families at much lower transaction costs, bringing the bank to those currently unbanked. Realizing this promise will require close collaboration among all relevant stakeholders. IFC is committed to building on current knowledge, sharing best practice, and scaling successful models across borders, to help create opportunities for people and make a difference in their lives.”**

MOHSEN A. KHALIL, DIRECTOR, GLOBAL INFORMATION AND COMMUNICATIONS TECHNOLOGIES, IFC/THE WORLD BANK

This report is written on the occasion of the first Mobile Money Summit, held May 14-15, 2008, in Cairo, Egypt. As GSMA CEO Robert G. Conway stated in his opening remarks, “The ubiquity and convenience of the mobile phone is bringing new value, opportunities that no one foresaw before in the delivery of financial services.” For businesses, the opportunities include reaching vast numbers of new customers and providing better service to existing customers. For customers, the opportunities include increased affordability, convenience, and security. The mobile phone may even open access to financial services for many who are currently excluded from the market altogether – the majority of the population in many developing countries. “Bringing the bank to the unbanked,” as Wizzit CEO and IFC investee Brian Richardson puts it, would provide new fuel for private sector activity and economic growth, helping empower people to forge their own paths out of poverty.

It is with good reason, then, that mobile money is such a hot topic in the telecommunications and financial services sectors and in the international development community. The Cairo Summit brought together close to 500 participants from 67 countries – about one quarter mobile network operators, one quarter banks and other financial services firms, one quarter

technology providers, and a final one quarter government regulators, development organizations, consultants, and academics. More than 45 speakers representing all of these sectors shared their experiences and their insights (see Appendix 2).

The goal of the Cairo Summit was to stimulate greater understanding and collaboration among all stakeholders – globally, regionally, and locally – and better equip participants to develop and deploy their own mobile money portfolios effectively, efficiently, and at scale. In the words of one speaker, Fundamo CEO Hannes van Rensburg, it was a “watershed” event. “The industry is coming of age,” he said, “when we realize it is in all of our best interests for the industry as a whole to grow.”

Leaders in the mobile money industry are clear that it is time to consider the foundations for long-term growth at both national and international levels. Drawing on the proceedings of the Cairo Summit as well as in-depth interviews with speakers and other experts, this report takes a look at those foundations and what each of us can do to strengthen them. We hope that mobile money’s impact is ultimately even greater than we imagine it today.

# 1 The Mobile Money Opportunity

**“Mobile money” is money that can be accessed and used via mobile phone. Today, mobile subscribers in markets such as South Africa, Kenya, the Philippines, Japan, and elsewhere are beginning to use mobile money for transactions and services including domestic and international remittances, bill payment, payroll deposit, loan receipt and repayment, and purchases of goods and services ranging from prepaid airtime to groceries to bus tickets to microinsurance.**

There is no limit to the range of transactions and services for which mobile money could eventually be used. As a result, mobile money has significant implications for economic activity across the board. First, it reduces the cost and risk inherent in dealing with cash. Second, and perhaps more significantly, it facilitates the flow of money from one party to another using a communications infrastructure that already connects billions of customers around the world – far more customers than currently have bank accounts. These advantages are particularly pronounced in developing countries. When Vodafone and Safaricom launched their m-payment service M-PESA in Kenya in March 2007, they gained 2.37 million subscribers in little over one year. According to Dr. Nick Hughes, Head of International Mobile Payment Solutions for Vodafone Group, this is “an uptake which has surprised us but shows the need in the marketplace for very simple, secure, and low-cost services.”<sup>1</sup>

The need and opportunity for mobile money are shared by businesses and their customers. For businesses across industries, the mobile channel offers the opportunity to reach new customers as well as to provide better service to existing customers. In particular industries, such as telecommunications, software, and even retail, it offers the chance to develop whole new business lines. For customers, the advantages of mobile money include affordability, security, and convenience. The mobile channel may open access to financial services and other markets to many, mostly low-income, customers who are currently excluded altogether.

It is mobile money’s ability to facilitate financial sector inclusion that gives it its enormous potential for development impact. Given access, financial services can help poor people forge their own paths out of poverty in two primary ways. First, they enable one to obtain through savings or credit sums of money large enough to invest in income generation and asset creation (for example, through enterprise, housing, education or training which improves one’s job market prospects, and so on). Second, they help reduce vulnerability to unexpected events such as accident, illness, theft, or drought. In addition, “in many countries, poor people are forced to rely on informal financial services, which may be unsafe, or fringe formal financial products, which may be expensive as well as unsafe. In other words, their exclusion from formal financial services has economic and social impacts

which may exacerbate their poverty” in addition to preventing them from climbing out of it.<sup>2</sup>

Financial sector inclusion is thus a critical prerequisite for effective market participation in its broadest sense – from being able to send a utility bill payment by mobile phone instead of losing a half day’s work in line at the bank, to being able to integrate one’s small business into the value chains of larger market players. As the United Nations Development Programme (UNDP) articulates, financial inclusion bolsters “both access to resources and the ability to transform resources into opportunities.”<sup>3</sup>

## 2 Growing the Mobile Money Industry: An Ecosystem Development Challenge

**“The three rules of retail are location, location, location. In mobile money, they’re partnership, partnership, partnership. We need to create a mesh of partnerships covering various networks of relationships.”** NAPOLEON NAZARENO, PRESIDENT, SMART COMMUNICATIONS

How, then, can the industry capitalize on the mobile money opportunity – for business and for development? Leaders and experts are clear that it is not enough to think about point solutions. If we do, as Napoleon Nazareno, President of Smart Communications in the Philippines states, “we will quickly bump into constraints that limit growth.” Instead, industry players need to think in terms of developing “mobile money ecosystems.”

In the business literature, a “business ecosystem” is

*“an economic community supported by a foundation of interacting organizations and individuals – the organisms of the business world. This economic community produces goods and services of value to customers, who are themselves members of the ecosystem. The member organisms also include suppliers, lead producers, competitors, and other stakeholders [who,] over time, [...] coevolve their capabilities and roles.”<sup>4</sup>*

Mobile money ecosystems are thus the networks of organizations and individuals that must be in place for mobile money services to take root, proliferate, and go to scale. Nazareno explains, “The objective is ubiquity. The three rules of retail are location, location, location. In mobile money, they’re partnership, partnership, partnership. We need to create a mesh of partnerships covering various networks of relationships.”<sup>5</sup>

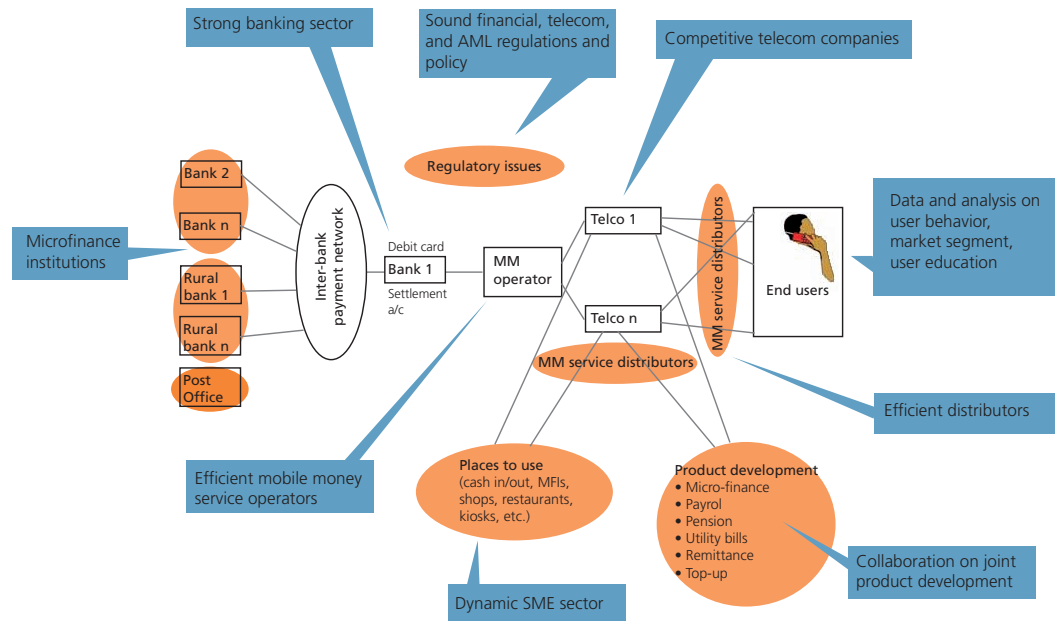
Mobile money ecosystems span a wide range of different players, including mobile network operators, banks, airtime sales agents, retailers, utility companies, employers, regulators, international financial institutions and donors, and even civil society organizations, as depicted in Figure 1. These players’ assets and capabilities, incentives, typical roles, and limitations or constraints are summarized in Table 1.

TABLE 1. PLAYERS IN THE MOBILE MONEY ECOSYSTEM<sup>6</sup>

Players	Assets and Capabilities	Incentives
<b>MNOs</b>	<ul style="list-style-type: none"> <li>• Mobile infrastructure</li> <li>• Extensive retail outlet/agent networks</li> <li>• Massive customer bases that include low-income segments</li> <li>• Strong branding</li> <li>• Customer trust</li> <li>• Customer service structures</li> <li>• Ability to make good margins on low ARPUs</li> </ul>	<ul style="list-style-type: none"> <li>• Acquire customers</li> <li>• Manage churn</li> <li>• Reduce airtime distribution cost</li> <li>• Increase ARPUs</li> <li>• Capture additional revenue opportunities, e.g. interest on float or commission on float mobilized; commission on B2B transactions; finders fees for bank accounts opened</li> <li>• Meet service obligations and CSR goals</li> </ul>
<b>Banks</b>	<ul style="list-style-type: none"> <li>• Banking license and infrastructure</li> <li>• Ability to facilitate foreign exchange, clearing, and settlement</li> <li>• Regulatory compliance expertise</li> <li>• Retail outlet networks (though significantly more limited than those of MNOs)</li> </ul>	<ul style="list-style-type: none"> <li>• Significantly reduce cost of delivering financial services</li> <li>• Establish presence in new customer segments and new geographic areas</li> <li>• Meet service obligations and CSR goals</li> <li>• Capture additional revenue e.g. through retention of deposits</li> </ul>
<b>Agents</b>	<ul style="list-style-type: none"> <li>• Physical points of presence</li> <li>• Customer trust (in some cases)</li> <li>• Knowledge of customer usage habits and needs</li> </ul>	<ul style="list-style-type: none"> <li>• Earn commissions on transactions</li> <li>• Increase traffic and thus sales potential (for agents who are retailers)</li> </ul>
<b>Retailers</b>	<ul style="list-style-type: none"> <li>• Physical points of presence</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce cost of handling cash</li> <li>• Reduce queues at peak times</li> <li>• Manage inventory more effectively</li> </ul>
<b>Utilities</b>	<ul style="list-style-type: none"> <li>• Periodic billing and collection</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce cost of payment collection and processing</li> <li>• Increase timeliness of payment</li> <li>• Offer greater customer convenience</li> </ul>
<b>MFIs</b>	<ul style="list-style-type: none"> <li>• Service presence among low-income segments</li> <li>• Regular communication with low-income clients</li> <li>• Knowledge of low-income clients' habits and needs</li> </ul>	<ul style="list-style-type: none"> <li>• Safer and lower-cost methods of disbursement and collection</li> <li>• Improve business efficiencies</li> </ul>
<b>Employers</b>	<ul style="list-style-type: none"> <li>• Existing periodic payroll distribution to employees</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce cost of payroll processing, risk of cash handling</li> <li>• Offer greater employee convenience</li> </ul>
<b>Regulators</b>	<ul style="list-style-type: none"> <li>• Authority to impose regulation and monitor and enforce compliance</li> </ul>	<ul style="list-style-type: none"> <li>• Promote financial inclusion</li> <li>• Enable wider range of payment choices</li> <li>• Address AML/CFT concerns by moving cash into more visible, formal channels</li> <li>• National socio-economic development</li> </ul>
<b>IFIs and Donors</b>	<ul style="list-style-type: none"> <li>• Contacts, experience, and expertise across countries, sectors, and industries</li> <li>• Credibility with regulators</li> <li>• Comprehensive suite of relevant functions</li> <li>• International presence</li> </ul>	<ul style="list-style-type: none"> <li>• Promote financial inclusion</li> <li>• Drive development in general, in line with organizational mission</li> </ul>
<b>Civil Society</b>	<ul style="list-style-type: none"> <li>• Local contacts and knowledge in low-income markets</li> <li>• Credibility and trust</li> <li>• Relevant operations</li> </ul>	<ul style="list-style-type: none"> <li>• Enhance social and economic impacts of their activities</li> <li>• Drive development in general, in line with organizational mission</li> </ul>
<b>End Users</b>	<ul style="list-style-type: none"> <li>• Relevant needs</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce risk of carrying cash</li> <li>• Increased access and affordability of payment, remittance, and other financial services</li> <li>• Convenience of remote payment, remittance, and other financial services</li> </ul>

Roles	Limitations and Constraints
<ul style="list-style-type: none"> <li>• Provide infrastructure and communications service</li> <li>• Agent oversight and quality control</li> <li>• Issue e-money (where commercially desirable and permitted by law)</li> <li>• Exercise leadership in drawing mobile money ecosystem together</li> <li>• Advise other businesses (e.g. banks, insurers, utilities) on their mobile money strategies</li> </ul>	<ul style="list-style-type: none"> <li>• Regulatory limitations on providing financial services, e.g. on taking deposits, issuing e-money</li> <li>• Shareholder pressure for faster, higher returns</li> <li>• Strategic focus that may not include mobile money</li> </ul>
<ul style="list-style-type: none"> <li>• Offer banking services via mobile</li> <li>• Hold float or accounts in customers' names</li> <li>• Handle cross-border transactions, manage foreign exchange risk</li> <li>• Ensure compliance with financial sector regulation</li> </ul>	<ul style="list-style-type: none"> <li>• Narrow customer base</li> <li>• Lack of experience with, and in some cases interest in, low-income customers</li> <li>• Stringent regulatory requirements with significant compliance burdens</li> </ul>
<ul style="list-style-type: none"> <li>• Perform cash-in and cash-out functions</li> <li>• Handle account opening procedures, including customer due diligence (where commercially desirable and permitted by law)</li> <li>• Report suspicious transactions in accordance with AML/CFT requirements</li> <li>• Identify potential new mobile money applications</li> </ul>	<ul style="list-style-type: none"> <li>• Liquidity shortfalls</li> <li>• Basic business skills gaps</li> <li>• Lack of customer trust (in some cases)</li> <li>• Limited ability to partner with large corporations</li> </ul>
<ul style="list-style-type: none"> <li>• Accept mobile payments</li> <li>• Use mobile payments in B2B transactions, payment of wages</li> <li>• Build customer trust in mobile money by leading by example</li> </ul>	<ul style="list-style-type: none"> <li>• Customer demand (or lack thereof) for payments through mobile channel</li> <li>• Business partner willingness to transact by mobile</li> </ul>
<ul style="list-style-type: none"> <li>• Offer mobile payment options</li> </ul>	<ul style="list-style-type: none"> <li>• Potential threat to existing bill collection agents</li> </ul>
<ul style="list-style-type: none"> <li>• Introduce low-income segments to mobile money</li> <li>• Educate end users</li> </ul>	<ul style="list-style-type: none"> <li>• Back office systems may not link with mobile money platforms</li> <li>• Cultural resistance</li> </ul>
<ul style="list-style-type: none"> <li>• Offer direct deposit of wages into mobile money accounts</li> </ul>	<ul style="list-style-type: none"> <li>• Cultural resistance</li> </ul>
<ul style="list-style-type: none"> <li>• Provide enabling environment for mobile money</li> <li>• Protect stability of financial system</li> <li>• Demonstrate leadership to encourage and protect behavior change</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of experience with convergence of financial and telecommunications regulatory regimes</li> <li>• Lack of financial and technical capacity</li> </ul>
<ul style="list-style-type: none"> <li>• Undertake research, especially on lower income segments</li> <li>• Provide financing and/or technical assistance</li> <li>• Facilitate dialogue among ecosystem players</li> <li>• Support government reforms</li> <li>• Financial literacy awareness and education</li> </ul>	<ul style="list-style-type: none"> <li>• Can only act as catalyst</li> </ul>
<ul style="list-style-type: none"> <li>• Undertake research, especially on lower income segments</li> <li>• Build the capacity of agents and small retailers</li> <li>• Engage in operational partnerships with mobile money providers</li> <li>• Financial literacy awareness and education</li> </ul>	<ul style="list-style-type: none"> <li>• Philanthropy-based, not-for-profit funding models limit scale</li> <li>• Cultures and business processes may not easily lend themselves to partnership with business</li> </ul>
<ul style="list-style-type: none"> <li>• Use mobile money to improve their lives</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of awareness</li> <li>• Limited financial literacy</li> <li>• Cultural and psychological resistance</li> </ul>

**FIGURE 1. SAMPLE MOBILE MONEY ECOSYSTEM CONFIGURATION**



Source: IFC

Many mobile network operators (MNOs) are playing leadership roles within their mobile money ecosystems. In the words of Smart’s Nazareno, “The mobile operator spins the thread that knits all these relationships together.” This makes sense on a fundamental, practical level, because what distinguishes mobile transactions from other kinds is the distribution channel – which MNOs provide. But this is not the only, and possibly not the most important, factor.

What gives MNOs the impetus and ability for leadership in developing mobile money ecosystems is their reach across customers in all income segments. In Pakistan, for example, only one million people have bank accounts while 70 million have mobile phones.<sup>8</sup> In Bangladesh, about one tenth of the population has bank accounts while nearly one third has mobile phones. As a result, MNOs are able to provide not only the infrastructure and a large pool of potential users for mobile money, but also advisory services to other companies – banks, insurers, utilities, and so on – seeking to develop their own mobile money models. Their advice is especially critical for companies seeking to use the mobile channel to reach out to new customers beyond their traditional markets. In Sri Lanka, for example, Dialog Telekom is currently helping insurers think through their options for providing micro-insurance through Dialog’s mobile infrastructure and network of agents.<sup>9</sup>

MNOs’ networks of sales agents and retail outlets, where customers can sign up for service, purchase phones and accessories, and top-up their pre-paid airtime accounts, give them their reach geographically and across income segments. These agents and retail outlets form the backbone of any mobile money ecosystem. According to Vodafone’s Hughes, they are

“absolutely critical. They are the touch points to our customers.” They also play key roles in further ecosystem expansion. Hughes explains, “Expanding the mobile money ecosystem depends on good information about the flows of money.”<sup>10</sup> Agents are best placed to follow the flow of mobile money and identify the points at which cash is taken out and used instead. These points are opportunities to bring new members into the mobile money ecosystem. The experiences of Smart Communications and Globe Telecom in the Philippines show that agents and retail outlets can be valuable sources of innovation as well. Because they are close to their customers and can observe their habits and needs, they can identify and suggest new ways to use mobile money.<sup>11</sup>

In theory, the mobile money argument is strong for banks as well as MNOs. Mobile banking is up to 50% cheaper than offering financial services through traditional channels, and the unmet need is enormous.<sup>12</sup> Banks are uniquely empowered by financial sector regulation to perform certain functions, such as deposit-taking and cross-border exchange. But, as Tim Lyman of the Consultative Group to Assist the Poor (CGAP) explains, “other actors besides banks may be more attuned to the opportunities of branchless banking.” Branchless banking, including mobile banking, is likely to provide more value to low-income customers who have no other options, whereas banks have traditionally been content to focus on the highest income segments – where m-banking may only offer marginally more convenience or security compared with options already available.

The role of government in developing mobile money ecosystems cannot be overstated. Government regulators are responsible for providing environments that enable ecosystem development to happen. Regulators can create the space for experimentation and, as experience accumulates, build the policy frameworks needed to undergird further growth. This is, of course, not an easy exercise, with disparate and sometimes competing objectives that need to be reconciled. The challenge of shaping an enabling environment for mobile money ecosystem development will be discussed at more length in Section 3.3.

All industries go through phases in their development, and mobile money is still in the emerging phase – or “chaos” phase, as Fundamo CEO Hannes van Rensburg has called it.<sup>13</sup> Smart Communications CEO Napoleon Nazareno agrees: “Operators who have gotten their feet wet know that this business is still in its infancy. We have so much to learn, and perhaps more importantly, so much to unlearn.”<sup>14</sup> In the words of Vodafone’s Nick Hughes, “No one knows what the [mobile money] ecosystem will look like in five years. We can imagine the end state – closed loop, everyone connected, basically cashless – but getting there is the challenge!”<sup>15</sup> The remainder of the report explores this question.

## 3 Laying the Foundations for Mobile Money Ecosystem Development

As Hans Wijayasuriya, CEO of Sri Lanka's Dialog Telekom, asserts, "for something to be ubiquitous, the foundations need to be very strong."<sup>16</sup> Without doubt, scalable, robust technology will be required. Fundamo's Hannes van Rensburg asks, "How do we build a system that would scale from hundreds of transactions a second to thousands a second? What does it do under adverse conditions and how quickly can it recover? What we can't afford in this infant industry is major catastrophes."<sup>17</sup> What other foundations do growing mobile money ecosystems need? Their leaders identify three that stand out: **utility**, **capacity**, and **an enabling environment**.

### 3.1. Utility

Utility is the ability of a good or service to satisfy some human want or need. For mobile money, utility is a function of the number of ways and places in which it is possible to use it.

Today, remittances and remote payments are the most common uses of mobile money. Within these categories, different applications have experienced different degrees of uptake in different markets. This is partly because of differences in what mobile money providers offer and market. For example, M-PESA, which markets its service as "Send money home" or "Send money to your loved ones," is used primarily for domestic remittances. In the Philippines, where Smart Communications' Smart Padala enables overseas workers to send Smart Money to their relatives, international remittances are also popular. Differences in uptake of particular services across markets are also a function of what is relevant or valuable for users in those markets. In Bangladesh, people typically must take three to four hours off work to travel back and forth and queue at designated banks – which are not necessarily the banks closest to their workplaces – in order to pay their utility bills. In this environment, mobile utility payments are proving highly popular. In contrast, in Russia, it typically takes six to 12 months of non-payment before utility companies disconnect customers' service – so there is no demand for anytime, anywhere payment options.

Consumers are using mobile money where there is a very clear, simple value proposition. So far, the predominant value proposition is being able to send money easily, cheaply, and securely. According to CGAP's Gautam Ivatury, this is making people's lives easier and we should count it as a huge success.<sup>18</sup> Many mobile money providers are happy to focus on these relatively well-proven "killer apps," for now. In the early stages of mobile money ecosystem development, "the key to success is simplicity," says Vodafone's Hughes.<sup>19</sup> It is important not to confuse the market with too many services, and to take the necessary time



Photographs: NTT DoCoMo, Inc.

to establish consumer trust as well as the interest and collaboration of the parties that would need to be involved in each new service.

Leaders in the mobile money industry believe that remittances and remote payments will serve as effective catalysts, but that in the longer term, if mobile money is to be ubiquitous, it must offer even greater utility. The greater the utility, the greater the potential uptake. “How do you provide enough utility for people to [take up mobile money]?” asks MTN’s Head of MobileMoney International Development, Dare Okoudjou. “Airtime top-up and money transfer are the most obvious; how do you find more services and ways of implementing them? This is where the most work needs to be done.”<sup>20</sup> GSMA confirms that “to be a compelling consumer proposition, there has to be a critical mass of uses of [mobile money].”<sup>21</sup> These uses might include domestic and international remittances; water, electricity, and gas payments; retail purchases of all kinds; receipt and repayment of loan monies; savings; insurance payments; wage deposit; and more.

Greater utility requires greater integration into consumers’ economic lives. The value of integration can be seen in the payday queues at ATMs in places like South Africa and Sri Lanka, where employers are increasingly requiring employees to open bank accounts where they can direct-deposit their wages. This practice has increased the number of “banked” people in lower-income segments. But people in lower-income segments often can’t easily use money in the bank – so they line up on payday to take it all out in cash.

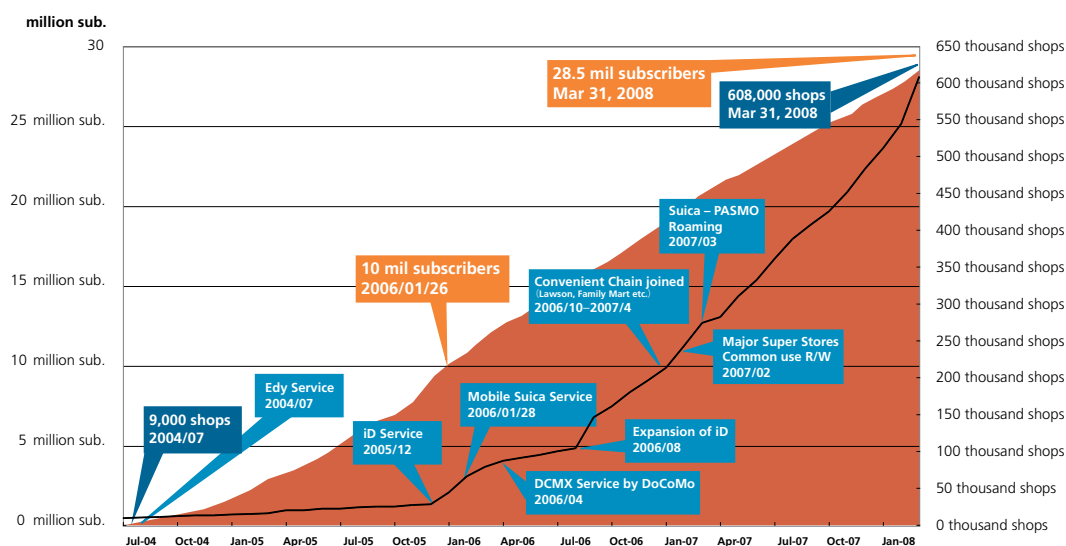
“It’s not just money in, money out,” says Dialog’s Hans Wijayasuriya, “it’s what the customer can do with that money.”<sup>22</sup> So Dialog is currently working to bring into the ecosystem the schools, hospitals, retailers, and other merchants where its mobile money consumers must currently use cash. It can initially be an uphill battle to persuade merchants to accept mobile money, according to DoCoMo Managing Director Hiroshi Tamano.<sup>23</sup> Mobile money providers must make the business case clearly and explicitly. Smart Communications’ Alex Ibasco agrees: “It wasn’t the convenience of m-commerce that created this huge acceptance in Smart, it was actually the chance to make money.”<sup>24</sup> In order to convince retail chains in Japan that mobile money enhances both customer convenience and value for their businesses, DoCoMo stressed a number of merits of its *osaifu-keitai* (“mobile wallet”), including:

- **Process speed:** minimizing the time it takes to process a transaction at the point of sale
- **Versatility:** enabling customers to use a single device for multiple services from multiple service providers, as compared with plastic cards that apply to single service providers only

- **Security:** allowing customers and service providers to view their transaction histories at any time via their mobile handsets, and reducing the chance of loss as compared with cash

As merchants begin to come on board, it becomes easier to bring others on board as well: DoCoMo found that its growth curve steepened with each major retailer that it added. Along with a vast number of gates and top-up machines at public transportation stations, 608,000 retailers now accept the company's mobile money in Japan.<sup>25</sup>

**FIGURE 2. UPTAKE OF OSAIFU-KEITAI BY RETAILERS IN JAPAN**



Source: NTT DoCoMo, Inc.

Mobile money providers increasingly recognize interoperability as part of the value proposition to consumer. Interoperability plays a role in both the remittance and remote payments space and in the emerging diversification of mobile money services.

- **Interoperability in remittances and remote payments.** Non-interoperable models are “reasonable in the early stages when you’re just getting to understand all the issues, operating at a small scale, figuring out the model,” says CGAP’s Ivatury. “[But] for customers, over time, it will be a lot cheaper and more powerful as a value proposition if you can send money to anyone” with a bank or mobile money account, even if it is with

a different provider.<sup>26</sup> Some interconnection is already happening. In the domestic remittance space, for example, M-PESA allows consumers to send money to any phone, even non-Safaricom phones. Non-Safaricom recipients are sent a voucher with a one-time PIN, which they take to Safaricom agents to withdraw cash.<sup>27</sup> In the international remittance space, Western Union has signed interconnection agreements with Smart Communications and Globe Telecom in the Philippines and Bharti Airtel in India, under the auspices of GSMA's Mobile Money Transfer (MMT) Programme. In payments, Smart has partnered with MasterCard to issue Smart Money MasterCard debit cards that enable consumers to use their mobile money wherever MasterCard is accepted, domestically and internationally. Wizzit in South Africa has done the same thing. Where ATMs are available, Wizzit subscribers can use their Wizzit MasterCards to deposit and withdraw cash. Where merchants have MasterCard terminals at the point of sale, they can use their cards to make payments using their Wizzit accounts.

- ***Interoperability in the emerging diversification of mobile money services.*** Some degree of interoperability will be required if a critical mass of mobile money services is to develop. Mobile network operators and other companies are conscious of their core competencies and often, quite rightly, want to focus on their core businesses. As a result, some interoperability, in the sense of collaboration or partnership, will be needed to “expose [consumers] to a broad range of players so collectively they can get the full package of financial services.”<sup>28</sup> As Alex Ibasco, Group Head of New Business Streams at Smart Communications, says, “Smart has no illusion it can build everything. Instead, we take a strategy of inclusion, inviting people to come in and create businesses out of areas where there are gaps. We think of ourselves as a horizontal infrastructure enabler and we look for people that think vertically. Creating businesses out of the gaps – that is the only way.”<sup>29</sup>

Interoperability in the diversification of mobile money services is also important from the perspective of consumer choice. Offering consumers choice can be a key part of the value proposition. This is already happening in some deployments. For example, in South Africa, MTN offers subscribers not only MTN Banking's application, but also access to their First National Bank, ABSA, Standard Bank, and NedBank accounts. It is even possible to purchase airtime from Vodacom on MTN Banking's menu. “We need to get more people active in developing applications,” says MTN's Dare Okoudjou. “Unless we have decentralized content generation, almost like in the video game industry, not enough will happen.”<sup>30</sup> Of course, decentralized content generation requires MNOs and platform providers to make enough information available for others to develop applications that run on their systems.

Industry leaders seem to agree that interoperability is key. However, they have different views as to how interoperability can and should be achieved. Three approaches are explored below: standards, bilateral agreements, and multilateral hubs or switching environments.

- **Standards.** The global mobile telecommunications industry owes a debt to the success of past standard-setting efforts, particularly the Global System for Mobile Communications or GSM, which allows users to roam freely among markets. But most of the industry leaders and experts interviewed for this report feel that, even though mobile money is still in its early days, it is unrealistic to take an entirely standards-based approach to interoperability. Standards are consensus-based and therefore take a long time to develop. And the industry is already moving fast. Do we need standards when, as Director of GSMA's Mobile Money Transfer Programme Gavin Krugel points out, "we already have markets operating in parallel, and they already have the tools to interoperate"?<sup>31</sup> Could a major, global standards development initiative even have the effect of putting the brakes on growth that is already happening, as would-be mobile money providers slow down and wait to see what the standard will be? Industry leaders believe it is important to keep up the pace of experimentation and development at this emerging stage, and remind us that standards are not hard-and-fast prerequisites for successful industrial development. Often market forces determine what eventually becomes standard. Competing standards can also coexist.
- **Bilateral agreements.** As CGAP's Ivatury notes, mobile money providers need time to experiment, learn, deploy, and develop their models. The Philippines was an early mover in the mobile money space, and its two major providers, Smart and Globe, are perhaps the best established in the world. Both have begun to forge bilateral agreements, for example with MasterCard and Western Union, to expand the number of ways their subscribers can use their mobile money.
- **Hub or switching environment.** Many in the industry are already thinking even beyond the bilateral model. GSMA, for instance, believes that in the long run, bilateral agreements limit potential ubiquity – and as a result "have a high potential to restrict the economic and consumer proposition of [mobile money] and hinder overall mobile industry growth."<sup>32</sup> The organization advocates forward thinking about a multilateral or networked hub model. One potential element of this would be software, like Fundamo, that automatically selects the least-cost routing for each transaction.<sup>33</sup> Smart Communications believes that a "mesh" of bilaterals and hubs will eventually arise. High volume channels may tend to use bilaterals, as they may be more profitable for the parties involved. Lower volume channels that do not justify dedicated investments may tend to use hubs.<sup>34</sup>



Photographs: Wizzit

In the short term, providers' primary concerns have to do with consolidating their models. When the time comes to think about interoperability, the worry becomes whether or not interoperating will compromise their competitive positioning. GSMA's Krugel argues that this worry is misplaced. "Already we are seeing that competitive advantage doesn't really come with technology," he says. "The technologies are fairly similar. Competitive advantage comes from delivering better service to your consumers. Interoperability can be part of that better service. Consumers don't care about technological infrastructure – compete on product, price, and innovation, and not on the enabling technology."<sup>35</sup>

### 3.2. Capacity

The mobile money movement has been seeded by a few pioneering providers, mostly MNOs, that have been willing to set out and experiment, face setbacks, and try again, learning and building capacity as they go along. But this entrepreneurial modus operandi, which has characterized early movers like Smart, Globe, Wizzit, and M-PESA, does not work for everyone. Entrepreneurialism involves risk. The risk appetites of firms and their shareholders differ widely. For mobile money ecosystems to begin springing up everywhere, potential players will have to have enough prior knowledge and capacity to be reasonably confident they will succeed.

Capacity is an important consideration not only for MNOs, but all across the mobile money ecosystem. It is a particular issue for the large numbers of small-scale players involved, and this has the potential to become a bottleneck on overall ecosystem growth. Among these small-scale players are the agents and retail outlets that perform the critical cash deposit and withdrawal functions. But these agents often lack even the most basic business skills, such as business planning, accounting, and cash management. A CGAP study in Colombia, for instance, showed cash piling up above the Central Bank-imposed ceiling on the amount of cash an agent could handle. The more times that happened, the more times that agent had to close up shop and go to the bank, forfeiting business and inconveniencing his or her customers.<sup>36</sup> As Vodafone's Hughes stresses, agents "are our touch points to our customers so it's critical that they do their jobs well. As a result, we do a good degree of due diligence on them, enter into contracts with them, and do a lot of training."<sup>37</sup> Indeed, according to CEO Karim Khoja, one of the most important things that Roshan, Vodafone's MNO partner in Afghanistan, learned from the prior experience of Safaricom, Vodafone's MNO partner in Kenya, was the importance of training.<sup>38</sup>



Photographs: G-Xchange, Inc.

Agent capacity becomes increasingly critical with the diversification of mobile money services on offer. For example, Orascom Telecom’s research indicates that of its 200,000 agents in Pakistan, approximately 20,000 could qualify to offer financial services beyond airtime sales over a period of five years. This compares very favorably with the reach of even the biggest banks in Pakistan, which might have around 1,500 branches. But not all of Orascom’s 20,000 qualified agents would be able to provide a full package of financial services without further training and capacity-building.<sup>39</sup>

And diversification of mobile money services is itself dependent on the capacity of businesses of all kinds to make effective use of the mobile channel. According to Orascom’s Chief Commercial Officer, Ossama Bessada, “there needs to be a push on the corporate side, for example to convince employers to process their payrolls using mobile money, and to convince retailers and other points of sale to avail themselves of mobile money payment acceptance mechanisms.”<sup>40</sup>

As indicated above, much is made of the potential for microfinance institutions to adopt mobile money mechanisms. But “even though MFIs have strong local knowledge, product development acumen, and the ability to manage small transactions, most lack the stable core banking systems and specialized technical skill to implement branchless banking models or tap into existing systems.”<sup>41</sup> There is a “big need for capacity-building for MFIs if they are going to participate in any way in mobile banking,” says CGAP’s Ivatury. “For the most part, MFIs are only able to participate when you have a mobile operator, bank, or software company willing to help set things up. If these initiatives are already happening, MFIs can join up. Then there is capacity that needs to be built.”<sup>42</sup> This capacity includes software selection and development, integration into business processes and back-end systems, staff training, and the organizational change management that comes with the implementation of any significant enterprise software system.

This experience, however, has not necessarily been shared by G-Xchange in partnering with rural banks providing mobile phone-initiated banking transactions in the Philippines. According to G-Xchange President Rizza Maniego-Eala, these rural banks have agreed on standardized policies and procedures that allow them to use the G-Cash platform with only a mobile phone, without the need to have fully incorporated back-end systems. These transactions are no different from over-the-counter transactions, check-based transactions, or international remittance transactions performed over the internet. These mobile phone-based banking procedures and policies were prepared by the Rural Bankers Association of the Philippines’ Microenterprise Access to Banking Services program, with funding from the US

Agency for International Development. They have been approved by the Bangko Sentral ng Pilipinas (BSP).<sup>43</sup> There are other exceptions to the rule as well. For example, microfinance institution XacBank in Mongolia is developing its own mobile banking system.<sup>44</sup> And in Afghanistan, MNO Roshan is partially owned by the Aga Khan Fund for Economic Development, which also owns some of the largest MFIs in the country – setting the stage for early collaboration among them.<sup>45</sup>

Capacity issues are certainly not exclusive to MFIs. Some of the biggest banks in Bangladesh still keep track of deposits and withdrawals in hand-written ledgers, for instance, and certainly most companies have at least some work to do before implementing any new technology – especially one so central to the customer experience.

Capacity-building is not only a technical challenge. Cultivating openness and receptivity is a significant part of the work a firm must do to implement a new technology. But in the mobile money ambit, cultural receptivity goes beyond mere tech-readiness. Big banks, for example, must drum up some interest in customer segments they have previously ignored, or make a strategic decision to let MNOs and others serve those segments without political interference. According to Delwar Hossain Azad, Deputy Director and Head of Financial Services at Grameenphone, his company has spent a significant amount of time mitigating Bangladeshi banks' sensitivity to the idea of an MNO coming into the financial services sector's domain. He and his colleagues have interacted with the banks several times a month in the past year, trying to help them “understand that Grameenphone's core objective is highly complementary to that of the banks, bringing in significant untapped float from an audience they are not interested to serve – the unbanked masses.”<sup>46</sup>

For regulators, too, openness and receptivity are an important part of the capacity that is needed. Mobile money is in its emerging stages as an industry, and while there are policy innovations out there, “best practices” are still evolving. In this context, CGAP's Ivatury states, “based on the work we have done, the capacity to regulate really means being open to the possibilities.”<sup>47</sup> As Delwar Hossain Azad puts it, the first step for regulators is to “come out of the comfort zone” and “unlearn bias, as one cannot satisfactorily serve the population within existing regulation.”<sup>48</sup> The regulator's task is discussed at more length in Section 3.3 below.

How does one even begin to tackle a capacity-building challenge that is so pervasive – spanning essentially all the players and potential players in the mobile money ecosystem? Leveraging strategies, including collaborative self-help, will be key. Industry leaders feel that, given the positive social and economic impact of mobile money, there is also a strong role here

for international financial institutions (IFIs), development donors, and civil society organizations.

**Leveraging strategies.** Smart Communications is using a train-the-trainer strategy to train the Smart Money agents who sell airtime and perform cash deposit and withdrawal functions for its customers. Similarly, Roshan trains agents, MFI representatives, and some customers, and finds that they then train each other. GSMA's Market Acceleration Program (MAP) is another, platform-based leveraging strategy. MAP is a set of financial, strategic consulting, and technology facilities that leverage the experience and assets of GSMA partners Accenture, Fundamo, Western Union, and Gemalto to make a mobile money platform available for other companies to pilot at a subsidized cost.<sup>49</sup>

Another very interesting leveraging strategy is bottom-up, collaborative self-help. CGAP reports that Red Financiera Rural, a network of MFIs and cooperatives serving 538,000 microenterprise owners in Ecuador, "is planning to contract a technology provider to build and maintain core banking systems and branchless banking channels on behalf of the group to minimize upfront costs and the expertise needed inside each member organization." CGAP believes that "this sharing of technology costs and expertise has perhaps the highest potential to bring MFIs" into the mobile money ecosystem.<sup>50</sup>

**The role of IFIs, development donors, and civil society organizations.** Because of the positive social and economic impacts of mobile money, players such as IFIs, development donors, and civil society organizations have strong potential roles to play in capacity-building. These roles are especially important in mobile money's current, emerging stage, while consultants and other commercial capacity-building groups are still scarce. In addition, both today and in the longer term, IFIs, development donors, and civil society organizations will be uniquely positioned to take on non-revenue generating bits of the capacity-building challenge, because they are accountable for social results in addition to or even instead of financial results.

IFIs, development donors, and civil society organizations may be particularly well-suited to help build the capacity of some of the smaller members of the mobile money ecosystem, such as cash-in/cash-out agents and small-scale retailers. In the Philippines, the civil society organization Microventures trains store owners in business basics like bookkeeping, inventory management, retailing, and financial management. They are also developing a procurement system that gets better prices for goods sold by the Hapinoy chain by aggregating orders. Some of the leading stores have been able to increase their revenues by three times because they are able to offer lower price points to customers.<sup>51</sup>

IFIs, development donors, and civil society organizations can also play special roles helping to build the capacity of other socially minded members of the mobile money ecosystem, such as MFIs and regulators. CGAP, IFC, and USAID, for example, have capacity-building programs for MFIs. These organizations, along with other bilateral and multilateral donors such as the UK's Department for International Development (DFID) and The World Bank, also have influence with regulators around the world, with whom they work regularly. Somewhat uniquely, IFC, with 1,410 corporate investment clients in 116 countries, is also well-positioned to build the awareness and capacity of companies across industry sectors to join emerging mobile money ecosystems in their countries. For example, IFC could work with a wholesaler or distributor to accept mobile payments from the retailers in its customer base, or with an insurer offering weather-indexed crop insurance to collect premiums and disburse claims via mobile to small-scale farmers at the base of the economic pyramid.

### **3.3. An Enabling Environment**

For many businesspeople, there is an almost instinctive negative reaction to the word “regulation.” But regulation is essential to creating and maintaining an enabling environment for business, and mobile money is no exception.

As UK regulator Dominic Peachey reminds us, “the first concern of the regulator is to maintain, and if necessary restore, public confidence in financial services and markets.”<sup>52</sup> This is a concern shared with providers, as public confidence is a prerequisite for the uptake of mobile money. Public confidence is predicated on the stability of the financial system. As we have seen, mobile money is still in its emerging stages. And still there are many examples in which, in the absence of mobile money, airtime is being traded like currency – with significant implications for the economy and for people's lives. Either way, says Fundamo CEO Hannes van Rensburg, “this is money, not pseudo-money.”<sup>53</sup> Grameenphone's Delwar Hossain Azad agrees: “We're talking about millions and billions from the base of the pyramid. We don't want to mess with these people's money.”<sup>54</sup>

In addition to financial stability, the regulator is concerned with financial inclusion. As described above, billions of people are currently left out of the formal banking system, living in entirely cash-based economies – at the expense of their full economic potential and often of their physical security as well. Their exclusion has implications not only for them individually but also for their countries nationally. As Wizzit CEO Brian Richardson illustrates, “Imagine the economic impact of bringing the 12 million rand in cash currently ‘under the mattress’ in South Africa into the formal system where it could be used for investment.”<sup>55</sup> Financial inclusion will require innovation and competition among financial sector players, and it is the responsibility of the regulator to guide and facilitate this.

The need for stability on the one hand and innovation for inclusion on the other hand requires regulators to strike a delicate and constantly evolving balance. Mobile money providers need some regulatory certainty in order to reduce the risk of investment. But rigidity in this emerging stage would stifle investment and innovation. Additionally, if the cost of compliance were too high, it could raise barriers to entry and jeopardize providers' and regulators' shared goal of reaching ever lower income clients.<sup>56</sup> In Ghana, for example, mobile money providers are actually driving out to low-income subscribers houses because they have no other way of proving their addresses in compliance with Know Your Customer (KYC) requirements.<sup>57</sup> Eventually technology, for example in the form of biometric identification capability built into mobile handsets, may offer a solution.<sup>58</sup> But in the short term, it is not hard to imagine how such compliance challenges affect providers' economics.

Striking the balance between stability and innovation is particularly difficult in the mobile money space, because multiple regulatory domains – banking and telecommunications – are involved. As CGAP Senior Policy Adviser Tim Lyman points out, each domain is complex on its own, and their authorities are accustomed to operating autonomously from one another. As a result, “there is a significant risk of coordination failure in policy-making around mobile [money].”<sup>59</sup>

In this context, it is unsurprising that many leaders in the mobile money industry view the regulatory environment as not particularly enabling at present. They cite regulation as a primary challenge to expanding mobile money ecosystems. Grameenphone's Azad laments, “Except regulation, all other challenges are within our control [to solve]. We cannot live with the present Banking Act – we cannot serve the population within its present parameters.”<sup>60</sup>

What is needed, then?

- **Incrementality.** Leaders are clear that in mobile money's emerging phase, the worst thing we could do is pretend we know all the answers in advance. “Try to imagine what it's going to be like in the long term and you'll suffocate a business,” says Thaer Sabri, CEO of the Electronic Money Association.<sup>61</sup> Instead, leaders advocate an incremental approach. As the UK Financial Services Authority's Peachey observes, “Regulators are not futurologists. Take a relaxed, mature approach and let the channels emerge. Then add regulation as risks manifest.”<sup>62</sup>
- **Proportionality.** Another clear recommendation is proportionality. “Regulators need to weigh the potential gain against the potential damage,” says Victor Dostov, Managing Partner at Paycash in Russia, and then take a pragmatic, risk-based approach to KYC and



Photographs: Orascom Telecom

other relevant regulations.<sup>63</sup> Compare the approach taken in Ghana, described above, with that taken in South Africa, where proof of residence is no longer required to open mobile money accounts subject to daily and monthly transaction limits. Says Grameenphone's Azad, "The ultimate success of the service can be realized only through a rational, proportionate, and risk-based regulatory framework. We have to understand and accept the differences in need and requirement between, say, a \$100 transaction and a \$1 million transaction, within and outside a country."<sup>64</sup>

The risks of mobile money increase with scale of operations, transaction size, and transaction type, moving from payments to more diversified financial services. How are regulators to keep up, especially when – as the experience of M-PESA in Kenya has shown particularly well – scale can increase very (even unexpectedly) rapidly? The proportionate approach can be cumbersome for regulators, bringing the capacity issues touched upon in Section 3.2 into high relief.

First, knowledge and tools for shaping enabling environments for mobile money are increasingly available. For instance, the CGAP/DFID report "Regulating Transformational Branchless Banking: Mobile Phones and Other Technology to Increase Access to Finance," produced in partnership with GSMA, analyzes the regulatory treatment of mobile money ecosystem development in seven countries, based on more than 500 interviews.<sup>65</sup> Their findings have enabled them to produce a diagnostic tool<sup>66</sup> and well-received peer learning events for policy-makers and regulators.<sup>67</sup>

Second, and perhaps most important, is dialogue. In a report commissioned by DFID, David Porteous of Bankable Frontier Associates stresses the importance of "a comprehensive vision for market development between policy makers, regulators and industry players," which can "help to define obstacles and calibrate proportionate responses to risk at appropriate times."<sup>68</sup> Developing such a comprehensive, shared vision does seem like a daunting task. But there is a very simple way to get started. "The only way to work with government," says Paycash's Dostov, "is to spend time talking to government people."<sup>69</sup>

- **Individual or bilateral engagement with regulators.** In the Philippines, Globe Telecom's business development team proactively engaged regulators to build their confidence levels and obtain approval to offer the m-wallet service now known as G-Cash. "We talked to the Central Bank and Anti-Money Laundering Council to see how we could offer a service they would be comfortable with," says G-Xchange President Rizza Maniego-Eala.<sup>70</sup> In Bangladesh, Grameenphone interacts regularly at various levels of Central Bank management.<sup>71</sup> In Kenya, Vodafone partner Safaricom has direct relationships with the

Central Bank and provides it with regular reports and updates on its activities.<sup>72</sup> Roshan, Vodafone's partner in Afghanistan, learned from its Kenyan counterpart's experience to approach the regulator early on. Because the banking sector in Afghanistan effectively did not exist – indeed, when the company started out, it had to keep its revenues in the form of cash in safes in its offices – Roshan was able to work with the Central Bank to “leapfrog” many of the regulatory hurdles that legacy frameworks present.<sup>73</sup> Smart Communications, also in the Philippines, agrees with the proactive approach. In addition to dialogue, Smart has allowed itself to be audited by the Central Bank – something that is not required of telecommunications companies – in order to encourage confidence in both parties.<sup>74</sup>

- **Collaborative or multilateral engagement with regulators.** There are a wide range of organizations mobile money providers can work with to collaboratively engage in dialogue with government. For instance:
  - **Other companies.** Collective company action can take place on an ad hoc basis, as clusters of companies with complementary interests coalesce, or more systematically, e.g. through industry associations. While industry associations can be slow-moving because they are consensus-based, “there is a value to speaking with one voice and having one message,” says GSMA's Marina Solin.<sup>75</sup>
  - **Research institutions.** Independent research institutions can objectively assess and present fundamental data, for example on consumer usage, needs, and benefits. M-PESA, for example, is collaborating with research institutions such as Financial Sector Deepening and FinMark Trust. Such institutions do not usually advocate company-specific positions, but they provide credible information on which to base those positions and communicate them to regulators.
  - **Development agencies.** Development agencies can be effective partners in government engagement for a number of reasons. First, they often have their own channels of communication into regulatory bodies, in addition to those that private sector companies have. Second, they are generally perceived to have the public interest at heart, which gives them a certain legitimacy in the eyes of regulators. The public value that mobile money creates – in terms of financial inclusion and all its attendant benefits – opens up the space for development agencies and companies to work together on advocacy. GSMA found collaborating with DfID and CGAP to be “hugely beneficial.” As GSMA's Solin relates, “if we have an area where we have the same message, it can be hugely helpful to have a development institution saying the same things and asking for the same conditions.”<sup>76</sup>

According to Gavin Krugel, GSMA's “constant message to network operators and banks is that just because regulation exists doesn't mean it cannot be changed. You must work with your

regulator to find regulatory solutions that allow you to grow.”<sup>77</sup> It bears keeping in mind that this requires just as much leadership and indeed entrepreneurialism of the regulator as developing a mobile money business model requires of the provider.

In this context, experts advise, it is helpful for mobile money providers to present their cases around the regulators’ own objectives. For example, mobile money is in line with the World Bank guidelines for national payment system development, which are “exactly about expanding choices.”<sup>78</sup> The “upside for the regulator,” says Solin, is fundamentally about “the socio-economic benefit of financial inclusion – driving growth and development in the country.”<sup>79</sup>

In addition, more recognition should be given to regulators for creating enabling environments that allow mobile money ecosystems to take root and to grow. The very nature of ecosystem development means that to be successful, it has to be a collaborative effort. While MNOs have played and continue to play important catalytic roles, regulators will, in large part, determine how ingrained, how ubiquitous, mobile money becomes. According to MTN’s Okoudjou, we must get regulators to talk about successful mobile money ecosystem development, as “it is also their achievement, their success.”<sup>80</sup> In this vein, CGAP is facilitating bilateral conversations among central bankers – for instance from the Philippines and Brazil – and convening larger, more formal events at which multilateral conversations can take place. The organization has found that regulators are “eager to learn from each other, because that really is the best way of figuring out what would make most sense in their own countries.”<sup>81</sup>

## 4 Looking forward



While mobile money is now in its emerging stages, it is rapidly moving toward consolidation and growth. Industry leaders are clear that what is needed now is sustained action: experimentation and innovation by firms with mobile money business models and by government in the regulatory frameworks to make them possible.

Communication and collaboration will be key. It is important to sustain and even diversify the opportunities for mobile network operators, banks, technology providers, and other interested firms to share experience and learn about business and technology innovations in the mobile money space. At the same time, it is important to establish and support similar forums for regulators to exchange policy innovations across countries. And as business and government seek to interact more frequently and effectively in the policy-making process, more work should be done to learn from their efforts and spread “best practice” mechanisms around the world.

As mobile money ecosystems develop, all of their members – network operators, banks, utilities, and other firms of all kinds, as well as international financial institutions, development donors, and civil society organizations – must also keep the perspective of the customer, and especially the low-income customer, in mind. A recent CGAP survey estimates that less than 10% of current mobile money customers are low-income and unbanked.<sup>82</sup> Much of mobile money’s potential, for business and for development, comes from its potential to bring such customers into the mainstream of economic activity.

Smart Communications CEO Napoleon Nazareno says, “I keep reminding myself that [remittance] monies have been earned through considerable sacrifice and are helping to build the most cherished dreams of the beneficiaries. We face not only an exciting business opportunity but also a heavy social responsibility. That is why we must not and shall not fail.”<sup>83</sup>

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# Appendix 1 List of Interviewees

Delwar Hossain Azad, Deputy Director & Head, Financial Services, Grameenphone  
Ossama Bessada, Chief Commercial Officer, Orascom Telecom  
Dr. Victor Dostov, Managing Partner and Board Member, Paycash  
Dr. Allen Hammond, Vice President, Ashoka  
Dr. Nick Hughes, Head of International Mobile Payment Solutions, Vodafone Group  
Alex D. Ibasco, Group Head, New Business Streams, Smart Communications  
Gautam Ivatury, Manager, CGAP Technology Program  
Karim Khoja, Chief Executive Officer, Telecom Development Company Afghanistan Ltd., Roshan  
Gavin Krugel, Director, Mobile Money Transfer Programme, GSMA  
Rizza Maniego-Eala, President, G-Xchange, Inc.  
Dare Okoudjou, Head, MobileMoney International Development, MTN  
Brian Richardson, Chief Executive Officer, Wizzit  
Hiroshi Tamano, Managing Director, DoCoMo Europe Limited  
Hannes van Rensburg, Chief Executive Officer, Fundamo  
Dr. Hans Wijayasuriya, Director and Chief Executive Officer, Dialog Telekom PLC

# Appendix 2 Mobile Money Summit Agenda



Mobile Money  
Summit 2008

DAY ONE – 14 MAY 2008

Why, Where and How is Mobile Money Taking Off?

## 09.00 WELCOME AND EVENT OPENING

Robert G. Conway, CEO & Member of the Board, GSMA  
H.E. Dr. Tarek Mohamed Kamel, Minister of Communications and IT, Egypt  
Farida Khambata, Vice President for Asia, Latin America, Middle East and North Africa, International Finance Corporation

**Panelists:** Dr. Nick Hughes, Global Head of International Mobile Payment Solutions, Vodafone Group  
Yolande van Wyk, Head: Strategic Projects, FNB Mobile and Transact Solutions, First National Bank  
Hiroshi Tamano, Managing Director, DoCoMo Europe  
Brian Richardson, Chief Executive Officer, Wizzit

### Session 1

#### 09.20 THE MASS MARKET OPPORTUNITY: HOW THE CONVERGENCE OF MOBILE TELECOMS AND FINANCIAL SERVICES WILL REALLY PLAY OUT?

- New analysis of the 'addressable market' for all stakeholders
- Where and how mobile telecoms and financial services convergence will happen
- The commercial incentives that are supporting the growth of Mobile Money
- How industry and development organisations are expanding their collaboration
- How the developing world will lead the growth of Mobile Money

**Keynote:** Napoleon Nazareno, President, Smart Communications and GSMA Board Member

##### Setting the scene:

- Convergence of mobile and financial services
- Importance and opportunities of cooperation between banks and MNOs
- Results of convergence in the Philippines market
- Leveraging MNO distribution networks

**Presenter:** Gautam Ivatury, Manager, CGAP Technology Program

##### Panel Discussion

How important is the Mass Market opportunity? For whom? What are the key learnings to date from cross-sector collaboration? What are the alternative paths this rapidly growing industry could take? Which will be most productive, for which stakeholders?

**Moderator:** Mohsen A. Khalil, Director, Global Information and Communications Technologies, International Finance Corporation/The World Bank

**Panelists:** Hikmet Ersek, Executive Vice President and Managing Director, Europe, Middle East, Africa, South Asia, Western Union  
Alex D. Ibasco, Group Head, New Business Streams, Smart Communications

Dare Okoudjou, Head, MTN MobileMoney International Development

Gautam Ivatury, Manager, CGAP Technology Program

### Session 2

#### 11.30 SUCCESS STORIES – WHAT IS CREATING THE MOMENTUM TODAY AND WHY?

Cutting-edge case studies that demonstrate the different possibilities of exploiting Mobile Money and the market momentum to date.

**Keynote:** Dr. Nick Hughes, Head of International Mobile Payment Solutions, Vodafone

**Presenters:** Yolande van Wyk, Head: Strategic Projects, FNB Mobile and Transact Solutions, First National Bank  
Hiroshi Tamano, Managing Director, DoCoMo Europe Limited  
Brian Richardson, Chief Executive Officer, WIZZIT

**Panel Discussion** What other projects have shown tangible success to date – how, for whom and why? What are the key lessons from these and other projects to date?

**Moderator:** Dr. Simon Batchelor, Director, Gamos Ltd, DFID Framework

### Session 3

#### 14.30 NEW INNOVATIONS IN GLOBAL ENABLING INFRASTRUCTURE FOR MOBILE MONEY

The latest developments from retail banking and payment processing.

**Keynote:** Sonny Sannon, President, South Asia, Middle East and Africa, MasterCard Worldwide

**Presenters:** Nav Bains, Projects Director, GSMA  
Michael Knott, Partner, Communications and High Tech Operating Group, Accenture

Mike Robertson, Director - Business Development Global Banking & Markets, Royal Bank of Scotland

Todd Achilles, Managing Director, Affinity Mobile

### Session 4

#### 16.30 THE CRITICAL CHALLENGES TO DELIVERING SUCCESSFUL MOBILE MONEY SOLUTIONS

Practical experiences from organisations at the front-line of mobile money worldwide, covering:

- Corporate Strategy and Business Models
- Regulatory Environment
- Technology Strategy
- Marketing Products and Distribution
- Cash/Liquidity Management

**Keynote:** Naguib Sawiris, Chairman & CEO, Orascom Group

- Orascom's plans to set up subsidiary company to serve entire group for mobile financial services
- Importance of mobile money in Orascom's strategy
- Role of MNO in financial services

**Presenter:** Timothy Lyman, Senior Policy Adviser, CGAP

##### Panel Discussion

How much of a hurdle are these challenges? What sorts of things are being done to address them today? What more could be done? What is holding us back from solving them – now and in the future?

**Moderator:** Stephanie von Friedeburg, Senior Manager, Telecom and Media, Global Information and Communications Technologies, International Finance Corporation

**Panelists:** Pallab Mitra, Head of Commerce, Bharti Airtel  
Jean Diop, Vice President, Cap Gemini  
Hannes van Rensburg, Chief Executive Officer, Fundamo  
Timothy Lyman, Senior Policy Adviser, CGAP

#### 18.30 IFC COCKTAIL RECEPTION

Welcome: H.E. Dr. Mahmoud Mohieldin, Minister of Investment, Egypt

Mohsen A. Khalil, Director, Global Information and Communications Technologies, International Finance Corporation/The World Bank

Michael Essex, Director, Middle East and North Africa region, International Finance Corporation

#### 20.00 WESTERN UNION LEADERS IN MOBILE MONEY DINNER

Welcome: Christina Gold, President, Chief Executive Officer and Director, Western Union





09.00 WELCOME

Session 1

09.05 **Keynote:** Christina Gold, President, Chief Executive Officer and Director, Western Union

- The Power of Mobile for Western Union

09.25 **NEW SOLUTIONS: ENGAGING WITH CUSTOMERS AND CREATING COMPELLING PRODUCTS**

Presentations covering new approaches to:

- Customer segmentation for developing and developed markets
- Creating mobile money products for “banked” customers
- Creating mobile money products for the “unbanked”

**Presenters:** Dr. Hans Wijayasuriya, Director and CEO, Dialog Telekom PLC

Andy Chung, Strategic Business Development Manager, International Mobile Payments, Vodafone Group

Mung-Ki Woo, Vice President Payment and Contactless, Group Strategic Marketing, France Telecom

**Panel Discussion**

Which segments are most suited for what products? Which segments are most profitable? Where and why? How to address cultural issues? Who is really getting this right today? What could we do a lot more of?

**Moderator:** Mark Pickens, Microfinance Analyst, CGAP

**Panelists:**

Alaa Fahmy, Chairman, Egypt Post

Dr. Hans Wijayasuriya, Director/Group Chief Executive, Dialog Telekom Plc.

Andy Chung, Strategic Business Development Manager, International Mobile Payments, Vodafone Group

Mung-Ki Woo, Vice President Payment and Contactless, France Telecom, Group Strategic Marketing

Session 2

11:30 **NEW SOLUTIONS: GOVERNMENT & REGULATION**

New approaches to:

- How best to engage regulators in both developed and developing countries?
- How to ensure financial integrity and avoid money laundering?
- How to create effective cross-sector regulation?

**Keynote:** Delwar Hossain Azad, Dy. Director & Head, Financial Services, Grameenphone

- Relevance of regulation for MNO's ability to bank the unbanked
- Grameenphone regulatory challenges

**Presenters:**

Dominic Peachey, Senior Policy Adviser, Wholesale & Prudential Policy Division, Financial Services Authority

Massimo Cirasino, Head, Payment Systems Development Group, The World Bank Marina Solin, Regulatory Consultant, MMT Programme, GSMA

**Panel Discussion**

Which segments are most suited for what products? Which segments are most profitable? Where and why? How to address cultural issues? Who is really getting this right today? What could we do a lot more of?

**Moderator:**

Peer Stein, Head, Financial Infrastructure and Institution Building, Global Financial Markets, International Finance Corporation

**Panelists:**

Dr. Victor Dostov, Managing Partner and Board Member, Paycash

Dr. Thaeer Sabri, CEO, Electronic Money Association

Dominic Peachey, Senior Policy Adviser, Wholesale & Prudential Policy Division, Financial Services Authority

Massimo Cirasino, Head, Payment Systems Development Group, The World Bank Marina Solin, Regulatory Consultant, MMT Programme, GSMA

Session 3

14.30 **FAST-TRACK YOUR STRATEGY: A NEW CROSS-SECTOR ROAD MAP FOR THE DEVELOPMENT OF MOBILE MONEY**

New Cross-Sector Roadmap for scaling Mobile Money

- What the GSMA will do to support it
- What the Banking industry will do to support it
- What the World Bank will do to support it

**Presenter:** Gail Galuppo, Executive Vice President, Chief Marketing Officer, Western Union

- Adjusting Strategies in Response to Customer Needs

**Panel Discussion**

What support will the key stakeholders really offer? How can the Mobile Money Transfer project be leveraged to kick-start deeper involvement in Mobile Money? What key cross-sector milestones can we expect to achieve? What follow up will there be from this event?

**Moderator:**

David Porteous, Founder and Director, Bankable Frontier Associates

**Panelists:**

Ignacio Mas, Adviser, CGAP

Mohsen A. Khalil, Director, Global Information and Communications Technologies, International Finance Corporation/The World Bank

Gavin Krugel, Programme Director, MMT, GSMA

16.00 **EVENT CLOSE**



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#### 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, Cisco Systems Inc., InBev, InterContinental Hotels Group, Microsoft Corporation, Pfizer, Shell Exploration and Production, and the United Nations Industrial Development Organization (UNIDO). [www.hks.harvard.edu/m-rcbg/CSRI](http://www.hks.harvard.edu/m-rcbg/CSRI)



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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 FY07, IFC committed \$8.2 billion and mobilized an additional \$3.9 billion through syndications and structured finance for 299 investments in 69 developing countries. In the same year, IFC initiated 349 advisory service projects in 84 countries. [www.ifc.org](http://www.ifc.org)



The **GSMA** is the global trade association representing more than 700 GSM mobile operator Members across 218 countries and territories of the world. In addition, more than 200 Associate Members (manufacturers and suppliers) support the Association's initiatives as key partners. Encompassing commercial, public policy and technical initiatives, the GSMA focuses on ensuring mobile services work globally, thereby enhancing their value to individual users and national economies while creating new business opportunities for operators and their supplier partners. The Association's members now serve more than 3 billion customers – 85% of the world's mobile phone users. [www.gsmworld.com](http://www.gsmworld.com)



**CGAP** (The Consultative Group to Assist the Poor) is the world's leading resource for the advancement of microfinance. CGAP provides the financial industry, governments and investors with objective information, expert opinion, and innovative solutions to effectively expand access to finance for poor people around the world. [www.cgap.org](http://www.cgap.org)



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