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FINANCIAL SECTOR KNOWLEDGE SHARING

# ACCELERATING MOBILE MONEY IN INDONESIA

## OPPORTUNITY ASSESSMENT

**OCTOBER 2011**

This document was produced for review by the United States Agency for International Development. It was prepared by Chemonics International Inc. for the Financial Sector Knowledge Sharing Project, delivery order number EEM-E-03-05-00006-00.

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## ACRONYMS

BPR	People’s Credit Bank
CCT	conditional cash transfer
EDC	electronic data capture
MFI	microfinance institution
MNO	mobile network operator
PNPM	Program Nasional Pemberdayaan Masyarakat (National Community Empowerment Program)
SIM	subscriber identity module
SMS	short messaging service
USSD	unstructured supplemental service data

## INTRODUCTION

This opportunity assessment was completed by the Financial Sector Knowledge Sharing (FS Share) project as part of a broader scope of work commissioned by USAID Indonesia to explore how the Mission might support the development of innovative development solutions, such as mobile money, to increase access to financial services. FS Share and subcontractor Open Revolution conducted research and interviews (Annex B) in Indonesia as part of this scope of work in September and October 2011. This opportunity assessment examines current market conditions for mobile money and assesses the capabilities of various stakeholders (e.g., regulators, financial institutions, and mobile network operators). The report also discusses such opportunities as large cash payment streams and where the adoption of mobile money could have significant economic and development impact. It complements the *Accelerating Mobile Money in Indonesia Action Plan, October 2011*. The *Action Plan* proposes several potential pilot activities, among other solutions that USAID Indonesia may research and consider, to accelerate the development, adoption, and usage of mobile money as a vehicle to transform financial inclusion and achieve broad-based economic growth. The Opportunity Assessment report provides the foundation for illustrative activities presented in FS Share's *Accelerating Mobile Money in Indonesia: Action Plan*.

### FS Share Rapid Response Hotline

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## SECTION I. PURPOSE

USAID views mobile money as a valuable tool for extending financial services to unbanked and underbanked segments of the Indonesian market and achieving broader financial inclusion objectives. This report examines current market conditions for mobile money and assesses the capabilities of various stakeholders (e.g., regulators, financial institutions, and mobile network operators). The report also discusses such opportunities as large cash payment streams and where the adoption of mobile money could have significant economic and development impact.

The Opportunity Assessment report provides the foundation for illustrative activities presented in FS Share's *Accelerating Mobile Money in Indonesia: Action Plan*.

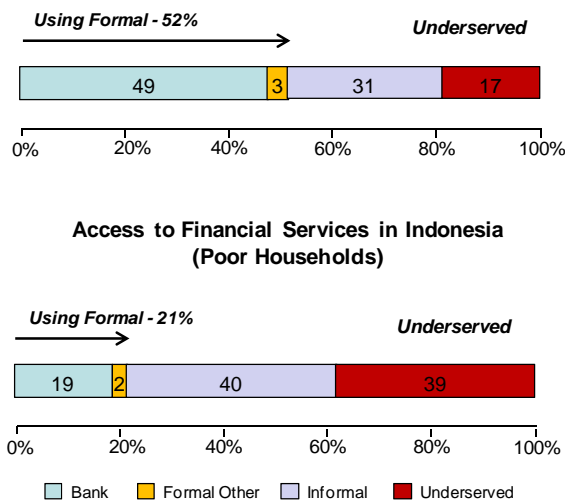
## SECTION II. MOBILE MONEY OPPORTUNITY

While Indonesia has a robust and competitive financial sector, a large percentage of the population has little or no access to financial services. This lack of access is due to a variety of factors that include geographic limitations, infrastructure barriers, poorly aligned products, service costs, and the financial literacy of target segments. Consequently, of a total population of approximately 250 million only 50 to 60 million Indonesians have bank accounts.<sup>1</sup> For the remaining unbanked population, obtaining the needed financial services remains a challenge. A recent study by the World Bank found that even poor households could benefit from access to the following financial services:

- Secure savings
- Non-cash payment mechanisms (e.g., person-to-person, utility payments, top-up)
- Credit
- Low-cost direct remittance channels
- Government payment channel

The World Bank Household study further indicated that the financial sector inadequately serves 79 percent of poor households<sup>2</sup>. Exhibit 1 summarizes the access to finance survey.

### Exhibit 1. Access to Financial Services in Indonesia



Source: World Bank Household Survey

These findings further highlight the current challenges facing the Indonesian banking sector in reaching low-income market segments.

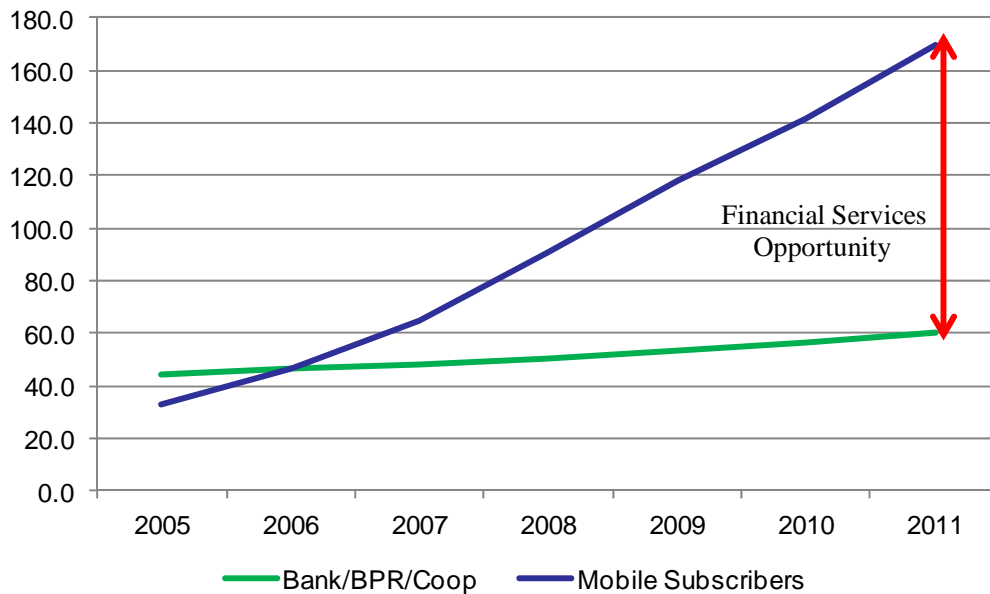
<sup>1</sup> Bank of Indonesia

<sup>2</sup> World Bank Household Survey

In contrast, as in many markets around the world, the Indonesian telecommunications sector has been extremely effective in moving down market. Low cost handsets, prepaid accounts and a variety of small increment airtime purchase options have made cellular telephones affordable to a majority of Indonesians. This broad market appeal has enabled mobile network operators (MNOs) to expand coverage and diversify products. Strong competition among the eight current service providers has provided low-income segments with a range of service and product options. It is estimated that there are nearly 160 million<sup>3</sup> unique mobile telephone subscribers in Indonesia, with numbers still growing.

Combining financial-sector expertise with the broad market capabilities of the mobile telecommunications channel presents a unique opportunity for governments and commercial entities to expand access to financial services and develop new business opportunities. Exhibit 2 highlights the gap between those with telecommunications access and those with formal financial services access. It is this gap that mobile money initiatives seek to address.

**Exhibit 2. Mobile Telephone versus Bank Penetration in Indonesia**



Source: GSM Association, Telkomsel, Indosal, PT XL, Axis, Bank of Indonesia

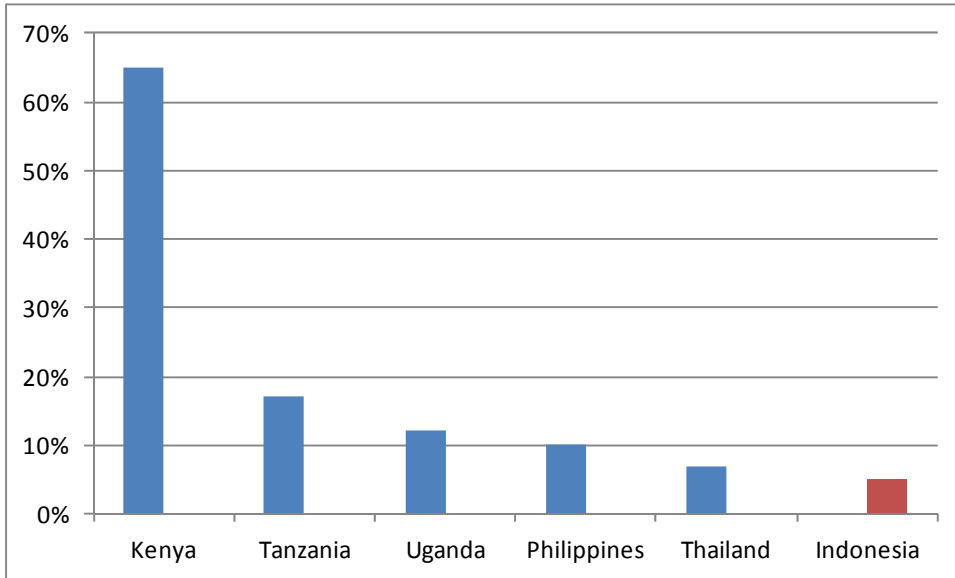
Mobile money services in Indonesia are delivered by banks, micro finance institutions, MNOs, and third-party providers. These groups represent a range of services, operating models, license regimes, and market segments. Some mobile money services are short message service (SMS)-based and available on any handset in the market. Others, use a sophisticated application and require smartphones and higher bandwidths.

<sup>3</sup> GSM Association

While the range of service providers is extensive, actual adoption and usage has been underwhelming. Provision of mobile money services to the unbanked and underbanked segment has been particularly disappointing Exhibit 3 compares mobile money penetration levels in Indonesia with other markets.

**Exhibit 3. Mobile Money Penetration Levels**

(Mobile money subscribers as a percentage of total mobile subscribers)



Source: GSMA, Telkomsel, Indosat



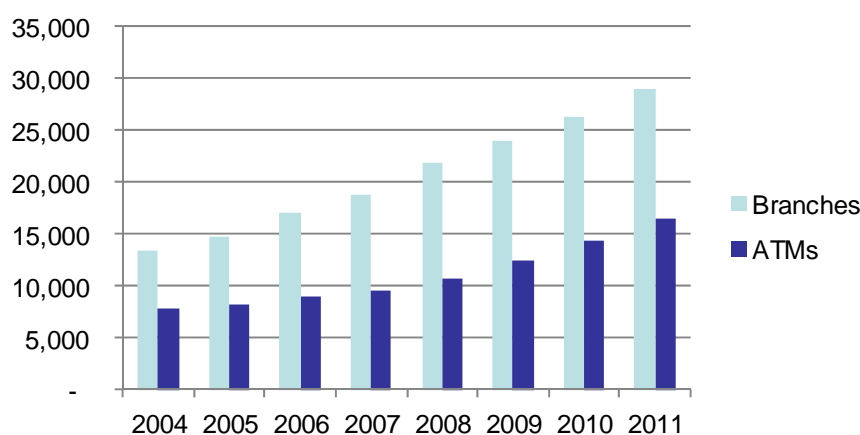
## SECTION III. FINANCIAL SECTOR

The Indonesian financial sector has shown dramatic growth over the past 10 years and offers a robust range of products and services. Access to financial services is very much dependent on income levels and geography. Wealthier customers in urban centers have access to a full suite of sophisticated financial services offered by multiple institutions. In contrast, the rural poor typically have access to rudimentary financial services offered by a single small provider. Mobile money has the potential to augment the capabilities of financial institutions, enabling them to reach new market segments.

### A. Banks

Indonesia's commercial banks control more than 95 percent of total deposits and assets. The three largest banks (Bank Mandiri, BCA, and BRI) represent 35 percent of total assets. The 10 largest banks control more than 60 percent of the assets. This concentration of resources has enabled the larger banks to expand services, but has inhibited their interest in serving less profitable, down-market segments. Nonetheless, branch and ATM expansion continues in Indonesia with the number of ATMs doubling in the past six years. Exhibit 4 illustrates recent growth in bank branches and ATMs.

**Exhibit 4. Branch and ATM Expansion**



Source: Bank of Indonesia, IMF, Andara Financial Access Survey

### B. People's Credit Banks and Cooperatives

In addition to commercial banks, the financial sector has an active microfinance component. Targeting the poor and more rural customers, the People's Credit Banks (BPRs) fulfill the traditional microfinance niche and provide limited credit and savings products. While regulated as banks, BPRs may draw funds from the public only in the form of deposits (time deposits, savings and/or other equivalent form of deposits), extend credit, and place funds in designated financial instruments. BPRs are not permitted to participate directly in the payments system, engage in equity participation, or conduct

foreign currency or insurance transactions. Most importantly, individual BPR operations are restricted to single provinces, further limiting their ability to scale operations.

According to Perbarindo, the Indonesian Micro Banks Association, BPRs face both technical and regulatory challenges. On the technical side, many BPR back-office systems are extremely simple or nonexistent, making it difficult to integrate with a mobile money platform. On the regulatory side, their inability to perform settlements and their geographic limitations will restrict their ability to participate in mobile money initiatives.

Smaller than the BPRs, cooperatives also target poor and rural populations. Regulated by the Ministry of Cooperatives and Small and Medium Enterprises, these entities operate under different requirements with more limited scope. While numerous, the 70,000 active cooperatives offer very limited products and services. The box at right summarizes the size of the BPR and cooperative sector.

<b>BPRs and Cooperatives</b>	
<b>BPRs</b>	<ul style="list-style-type: none"><li>• More than 1,700+ BPRs with more than 3,900 offices</li><li>• More than 7 million accounts</li></ul>
<b>Cooperatives</b>	<ul style="list-style-type: none"><li>• More than 175,000 cooperatives (70,000 active)</li><li>• 36,000 offer savings and loan services</li><li>• 29 million members</li></ul>

Bank Andara represents one potential solution to the challenges faced by BPRs and cooperatives. Bank Andara's technical and wholesale services to BPRs and cooperatives include facilitating settlements and providing core banking IT solutions. Bank Andara will soon offer mobile money capabilities. Key elements of its solutions for BPRs and cooperatives include:

- *Main financial products.* Short- and medium-term loans, channeled finance, mortgages
- *Savings products and services.* Microfinance institution (MFI) checking and savings accounts, time deposits, social and non-MFI accounts
- *Liquidity management products and services.* Overdraft facility, stand-by loans, overnight money market
- *Transactional banking services.* Remittances, payments, microinsurance
- *Hosted accounts for MFI end clients.* Online savings, loan collection accounts, jointly marketed alliance savings account products for MFI associations
- *Delivery channels.* On- and off-line ATM, m-banking, e-banking, and PT POS

### **C. PT POS**

PT POS is another institution with an extensive branch infrastructure. PT POS has more than 4,000 offices and an additional 1,000 mobile points of service. PT POS branches are typically located at the district level and provide broad nationwide coverage. PT POS

provides payment collection and distribution services and supports pension distribution, social welfare disbursements — such as conditional cash transfers (CCTs), bill payment, and, through a relationship with Western Union, remittances and money transfers.

## SECTION IV. MOBILE TELECOMMUNICATIONS SECTOR

Five of the 12 mobile operators in the market control more than 90 percent of the subscribers and 92 percent of income revenue. Mobile penetration stands at around 67 percent, with individual subscribers topping 100 million (150 million active SIMs). Rapid growth continues, with more than 8 million subscribers added last quarter. Table 1 shows the market share of the leading MNOs in Indonesia.

**Table 1. MNO Market Share (2011)**

	<b>Subscribers (active SIMs)</b>	<b>Market Share</b>
Telkomsel	93.2 million	49%
Indosat	44.0 million	23%
PT XL	38.2 million	20%
Axis	15.0 million	8%

*Source: GSMA, Telkomsel, Indosat, PT XL, Axis*

While not as dramatic as the rise in subscriber numbers, expansion of coverage continues. The population covered on Java and Bali is likely higher than 90 percent, with coverage rates on the other larger islands (Sumatra, Kalamatan, Sulawesi) averaging around 70 percent<sup>4</sup>. Greater coverage expansion is constrained by capital costs and declining average revenue per subscriber. The largest operators follow traffic patterns but, without assurance of sufficient subscriber numbers, have not invested heavily to date in new cell sites in remote areas. The recent agreement between Axis and PT XL to allow Axis customers to roam onto the XL network may provide a blueprint for possible future infrastructure sharing; this may encourage further network expansion.

The ability to deliver mobile broadband services is becoming increasingly important to mobile operators. In 2010, Telkomsel and Indosat each requested and obtained additional 3G bandwidth. XL and Axis, which received their 3G licenses in 2006 and 2005, respectively, also requested additional 3G spectrum. These requests reflect the growing penetration and use of smartphones and related data services. The increased bandwidth is intended to strengthen network service capabilities, enabling delivery of data services in greater volume.

According to Internet World Stats the number of people in Indonesia accessing the Internet via mobile phone exceeds those doing so by PC and that more than 80 percent of handsets in the market are Web-enabled. Indonesia is the first market in Southeast Asia region and fifth in the world where Dell released its first smart-phone — an indication of the country's potential and importance.

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<sup>4</sup> Telkomsel, Indosat, PT XL, Axis

## SECTION V. MOBILE MONEY CAPABILITIES

Indonesia’s mobile money market is characterized by both bank-led and MNO-led product offerings. Several MNOs, including Telkomsel, Indosat, PT XL, and Axis, have invested in mobile money platforms, with Telkomsel and Indosat providing some form of branded services. Such major banks as Bank Mandiri and BCA provide customers with a mobile money application that enables bank functions including transfers and bill payment. To date, neither MNOs nor banks have aggressively pursued mobile money as a strategic business proposition or business line with high-profit potential. MNOs view their mobile money business lines as added services that further link customers to their telephone numbers., MNOs hope to reduce churn by adding this linkage. Banks view the mobile channel as a cost reduction strategy that reduces the need for tellers, branches, and ATMs and lowers the cost per transaction. Neither group has invested heavily in a mobile money support ecosystem (e.g., mobile money agents or retail acceptance points). While regulatory factors contribute to this lack of investment, major mobile money providers also seem reluctant to commit to mobile money without a clearer business case.

Consequently, in most cases, mobile money providers do not use their capability to target new customer segments and take a wait-and-see attitude toward ecosystem development. Table 2 summarizes the mobile money landscape in Indonesia. Annex A presents a more detailed description of stakeholder capabilities and strategies.

**Table 2. Mobile Money Landscape**

<b>MNO Services</b>				
	<b>Telkomsel</b>	<b>Indosat</b>	<b>PT XL</b>	<b>Axis</b>
Mobile money product	T-Cash	Domet Pulsa	Pending	White Label
Mobile money platform	In-house	Utiba	In-house	Fundamo
Interface	SMS	SMS	Unstructured supplemental service data (USSD)	USSD
Key partnerships	Indomart, multiple bank partners	Alfamart, Kop Indosat, multiple bank partners	None	Bank Sinar
Registered customers	6 million	70,000	None	None
Active customers	600,000	70,000	None	None
Pilots	Salary payment pilot (tobacco workers)	None	None	Bali new account pilot with Bank Sinar Harapan

<b>Bank Services</b>				
	<b>Mandiri</b>	<b>BRI</b>	<b>BCA</b>	<b>BTPN</b>
Mobile money platform	In-house	None	None	Pending vendor selection
Key partnerships	Telkomsel	None	None	None
Registered customers	8 million	None	None	None
Active customers	2.4 million	None	None	None
Pilots	None	None	None	Cocoa value chain input supply/credit

In addition to MNOs and banks, third-party providers also offer mobile money capabilities. One example is Ponsel Pay, an SMS-based service provided by MVCommerce. The MNO-agnostic service relies on rural and commercial bank electronic data capture (EDC) machines as their primary cash-in and cash-out mechanism. Thus far, the service has very low adoption.

Although PT Ruma is not a direct mobile money provider, part of its work to provide profitable business opportunities for the poor in underserved communities, the firm has developed a business-in-a-box that enables small entrepreneurs to sell prepaid minutes. As of October 2011, PT Ruma has deployed a network of 9,000 entrepreneurs serving 900,000 customers per day. This agent network is well positioned to become mobile money cash-in/cash-out agents for a variety of mobile money operators. PT Ruma is actively investigating its capacity to support mobile money expansion.

A final mobile money capability is available through Bank Andara and its Andara Link service. Utilizing the Fundamo mobile money platform, Andara Link is developing an end user capability that would be offered through its constituent BPR and cooperative clients.

Mobile money providers in Indonesia offer the standard set of products and use cases. These include:

- Air time top-up
- Bill payment
- Person-to-person transfer (mobile wallet to mobile wallet as well as intra- and interbank transfers)
- Merchant payments
- Remittances

As is typical, MNOs are initially focusing on air time top-up as their primary use case. Banks emphasize bill payment and transfers. The systems are also capable of facilitating bulk government to person transfers (e.g., CCT payments), loan payments, and salary payments. Actual application of these use cases has thus far been limited.

## SECTION VI. MOBILE MONEY SECTOR BENEFITS

A formally licensed and well-supervised mobile money system can provide a number of benefits to the sector. Firstly, mobile money can be the “tip of the spear” that enables the unbanked and underbanked to join and participate in the formal financial sector. Having an affordable account that facilitates savings, payments, and credit is the key building block to achieve broader financial inclusion objectives. Second, having individuals and institutions linked to a mobile money network provides a range of efficiencies and other benefits, including the following:

### Transparency

- SIM registration and mobile banking Know Your Customer/anti-money laundering documentation verify user identity, preventing “ghost accounts” in the financial system
- The system maintains real-time transaction records, reducing fraud through traceability and accountability
- There is a direct linkage between the payers and the payees, reducing the risk of corruption by middlemen

### Efficiency

- Travel and wait times for customers and loan officers are reduced as transactions can be made at any time, from any place, for such services as loan repayment and bill payments
- Payments and disbursements (e.g., salaries, loans) can be made to multiple recipients simultaneously; reminders and confirmations can be sent and received at any time, from any place
- Transaction costs are lower than the alternatives (e.g., physical transport, brick and mortar branch costs, physical recordkeeping)

### Control

- The timing and amount of payments and disbursements can be controlled centrally
- Use of e-money can be restricted and targeted (e.g., the use of funds can be restricted to a specific participating merchant)
- Velocity limits and other controls can be used to manage accounts and reduce fraud

### Security

- Mobile money platforms use GSM encryption and are extremely secure
- Mobile wallet accounts are PIN-protected, with information stored on the mobile operator’s multiple systems

- Reduced cash handling lowers the risk of theft
- Loss of a handset does not mean the e-wallet is lost

### **Reach**

- Mobile penetration in Indonesia is four times higher than bank penetration
- Mobile network operators currently cover 80 percent of the population

### **Scale**

- Users and agents can be provisioned relatively quickly in new areas
- Mobile banking platforms can typically support millions of subscribers and transactions per day and are easily scaled

Thus, it is believed that encouraging the proliferation and adoption of mobile money services will directly benefit poor Indonesians and contribute to overall economic growth.



## SECTION VII. BARRIERS

While the Indonesian mobile money sector has many strong attributes — including multiple competitors, state-of-the-art technology, strong mobile penetration and coverage, and a significant underserved market segment, current mobile money adoption and usage levels are below expectations. Two primary reasons for this are regulatory policies and mobile money provider commitment. On the regulatory front, the Bank of Indonesia has been actively reviewing its mobile money policies. It recently accompanied the IFC on a study tour to Kenya and will be working with the World Bank and IFC to draft new policies and regulations. Discussions with mobile money stakeholders indicated that the two primary barriers to expansion of service are regulations that identify which entities can become mobile money agents and ambiguity about who can register individuals for formal bank accounts.

Current rules require mobile money agents to be formally registered businesses, and most apply individually for the appropriate agent licenses. These restrictions greatly hamper a mobile money provider's ability to sign up agents — particularly small retail businesses. Consequently, the availability of mobile money agents in Indonesia is extremely low, greatly limiting the utility of the service.

Regulations on where and how banks register accounts and perform KYC are said to be unclear. Several banks have interpreted the current rules to mean that only bank employees can register accounts and that this registration must take place at a bank facility. Other institutions have taken a more expansive view of the rules and have engaged third parties to collect KYC information in the field, bringing information back to bank facilities for review. Clarification of the rules would remove ambiguity and enable banks to formulate effective new customer registration programs. A more detailed description of the regulatory environment and recommendations for new policies that would accelerate mobile banking adoption can be found in the FS Share deliverable *Technical Analysis of Current Regulations Related to Electronic Money Networks* produced in conjunction with this report.

In addition to regulatory impediments, the mobile money sector can also be characterized by a lack of urgency on the part of service providers. MNOs do not view expanding mobile money services as a top priority, and available resources have been limited. To date, the business case for MNOs to invest heavily in agent networks, customer acquisition, and merchant promotions and incentives has not been made. For most MNOs, mobile money is a competitive necessity that supports broader churn reduction efforts rather than a core source of profits.

Banks also have not actively promoted their mobile money capabilities and have not effectively used the mobile channel's cost advantage (servicing a customer through mobile enabled agent is 1/50 the cost of servicing the same customer through a bank

branch)<sup>5</sup> as a mechanism to move down-market and acquire previously unbanked customers. Most banks have viewed mobile money as a cost reduction tool to lower transaction costs for existing customers. Several banks are reevaluating this position, with a few engaging in mobile money pilots that will test the efficacy of using mobile money to acquire and service low-end customers. Exhibit 5 presents specific constraints from the MNO and bank perspectives.

### Exhibit 6. Adoption Barriers

MNO Perspective	Bank Perspective
<ul style="list-style-type: none"> <li>• Limited suite of use cases</li> <li>• Wallet and transaction limits (e.g., Rp 5 million wallet limit)</li> <li>• Low uptake and usage</li> <li>• Insufficient cash-out points due to agent network restrictions</li> <li>• SMS-based systems are somewhat clumsy and may require additional user training</li> <li>• Limited public awareness</li> <li>• Limited geographic reach (mostly unknown outside Jakarta/big cities)</li> <li>• Not interoperable (i.e., limited to intra-MNO traffic)</li> </ul>	<ul style="list-style-type: none"> <li>• Interpretation of KYC regulations affecting customer enrollment</li> <li>• Few financial institutions are designing and marketing customized financial products that target low-end customers (BTPN is an exception)</li> <li>• Banks are not actively deploying practical non-bank access points (e.g., agents, EDCs, ATMs)</li> <li>• Current models do not achieve scale and customer numbers comparable to MNOs</li> <li>• Current fee structure does not support low-balance, low-volume accounts</li> </ul>

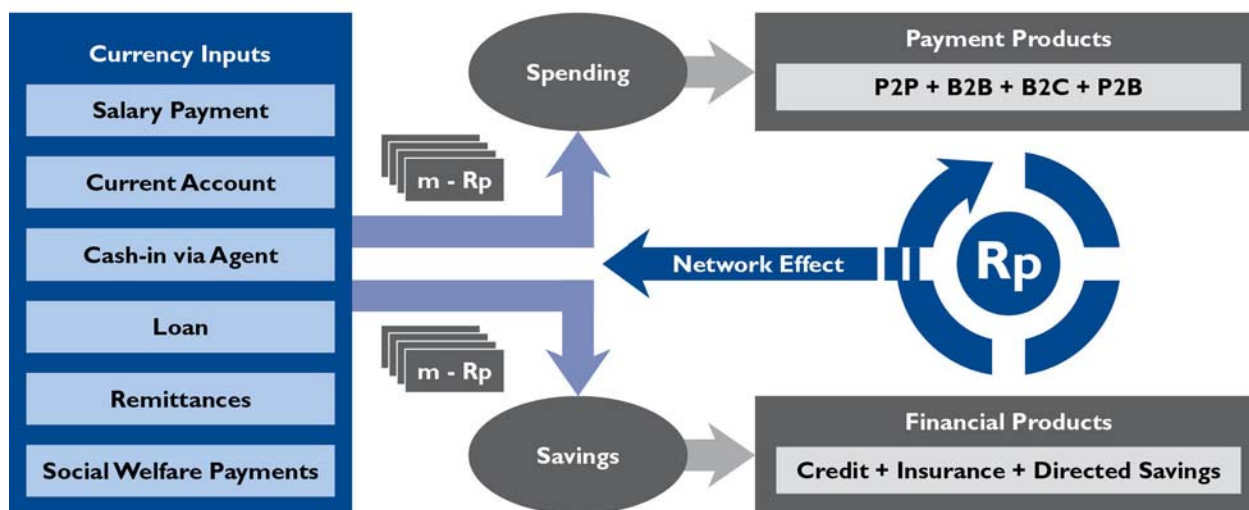
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<sup>5</sup> CGAP Focus Note No. 48

## SECTION VIII. PAYMENT STREAMS

A critical component of USAID’s strategy to accelerate mobile money adoption and usage in Indonesia is identifying and mobilizing high-volume, repetitive cash payment streams. As shown in Exhibit 7, ensuring consistent funding of mobile money wallets is an important step in creating a self-sustaining mobile money ecosystem.

**Exhibit 7. Critical Role of Funds Injection in a Mobile Money Ecosystem**



As shown, robust mobile money ecosystem requires consistent, periodic injection of funds into a mobile electronic wallet (e-wallet). The majority of funds currently enter the system through cash payments to a mobile banking agent or via bank transfers. Establishing regular automatic injections (e.g., salary payments, CCTs, stipends, loan disbursement) into an e-wallet is a critical step in expanding usage.

The following payment streams have been identified as potential candidates for mobile money pilots and eventual full transition to mobile money systems.

- *Social welfare payments.* The Ministry of Social Affairs identifies approximately a million households annually to receive approximately Rp 1 million per quarter as part of a CCT program to encourage positive health-related and education related behaviors. The payment system is currently cash-based, with recipients receiving funds from post office branch payment windows. Transitioning this payment stream to mobile money provides the needed funds injection to stimulate broader mobile money usage and targets a market segment that is consistent with government poverty alleviation and financial inclusion targets. CCT recipients are geographically dispersed and include both urban and rural constituencies.

- *Infrastructure development payments.* Program Nasional Pemberdayaan Masyarakat — the National Community Empowerment Program (PNPM) coordinates and operates a donor-funded program to provide specific communities with funds to undertake local infrastructure projects (e.g., secondary roads, irrigation canals). This program serves 5,000 communities annually with an average project size of Rp 1.5 billion. Typical infrastructure projects last 12 months, employ 10 to 40 individuals, and make weekly cash payments to individuals of approximately Rp 250,000. Concentrated in specific communities, the PNPM infrastructure program provides an opportunity to create a mobile money geographic focal point and layer on addition mobile money services and subscribers.
- *Agriculture value chain.* The Indonesia agricultural sector includes a number of high-value crops (e.g., coffee, cocoa, tobacco, tea, fruits, and vegetables). These value chains employ millions of workers and include large numbers of repetitive cash payments. Cocoa production involves approximately 600,000 small farmers receiving multiple cash payments of about 1 million RP for their crop. Coffee, grown across Indonesia, has a similar value chain and farmer. With multiple layers of wholesalers and a “last mile” dominated by cash payments, the agricultural value chains for multiple products present an excellent opportunity for mobile money and a consistent private-sector-oriented payment stream.

*Low-wage salaries.* Many Indonesian industries (e.g., tobacco, textiles) employ large numbers of low-wage workers who typically do not have formal bank accounts and are paid in cash at their places of employment. Providing these workers with a formal account mechanism and enabling electronic payments directly to a mobile wallet will help stimulate broader adoption of mobile money services.

- *Remittances.* Though not strictly a cash payment stream, domestic and international remittances offer another opportunity for mobile money to capture a significant flow of funds and provide a consistent method for funding mobile wallets. Internationally, Indonesia receives more than \$7 billion in remittances annually; major sources are Malaysia, Saudi Arabia, the Netherlands, Singapore, and the United States. The average overseas worker sends money up to six times per year and remits \$200 to \$500 per transaction<sup>6</sup>. Domestic remittance corridors from major cities to rural areas is also significant. A large percentage of remittances is currently transacted through PT POS (which serves as an exclusive agent for Western Union). Having remittances flow directly to mobile money accounts could provide significant advantages to recipients and further accelerate the adoption of mobile money.

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<sup>6</sup> Bank of Indonesia 2008 National Remittance Survey, Chemonics Analysis

## **SECTION IX. CONCLUSION**

Research indicates a strong untapped demand for financial services in Indonesia. Despite efforts by the financial and telecommunications sectors, many potential customers remain unserved or underserved. Mobile money can provide the mechanism by which appropriate financial products and services can be delivered to this market segment.

Indonesia has strong mobile money technical and operational capabilities. However, a combination of regulatory constraints and lack of commitment from major providers has resulted in a mobile money market that is under performing. Regulatory reform and selected forms of market stimulation can unlock the full potential for mobile money in Indonesia. Among market stimulation activities, the transition of repetitive cash payment streams to mobile money holds the greatest potential.

Through a combination of public and private initiatives, expansion of mobile money can become a valuable tool in government's poverty alleviation and financial inclusion efforts and, through organic expansion, become a catalyst for continued economic growth.

## **ANNEX A. STAKEHOLDER INTERVIEWS**

### **Mobile Network Operators and Other Technology Partners**

- MASTEL
- Telkomsel
- Indosat
- Axis
- PT XLs Mobile Money Services
- MasterCard
- Utiba
- PT Ruma

### **Financial Institutions and Associations**

- Bank Mandiri
- Bank Andara
- BTPN
- Micro Finance Association

### **Government of Indonesia**

- Ministry of Social Affairs
- POS Indonesia
- TNP2K

### **Donors**

- USAID Indonesia
- United States Embassy, Indonesia
- USAID Washington
- IFC Advisory Services
- PNPM
- The World Bank
- Aus Aid
- Bill and Melinda Gates Foundation

### **Focus Groups Within the Cocoa Value Chain in South Sulawesi**

- Olam
- Ecom
- Armajaro
- Local cocoa bean collectors
- Farmers' associations
- Approximately 60 farmers

## ANNEX B. MOBILE MONEY SERVICE PROVIDERS IN INDONESIA — CAPACITY AND STRATEGY

Carrier	Details	Strategy
<b>Telkomsel</b>	<ul style="list-style-type: none"> <li>• 106 million active SIMs</li> <li>• Launched T-Cash in 2008</li> <li>• 6.2 million T-Cash subscribers (10 percent active)</li> <li>• SMS-based</li> <li>• Holds money transfer and remittance license</li> <li>• Retail partners include Indomart (cash-out points) Alpha Mart, and Circle K</li> </ul>	<ul style="list-style-type: none"> <li>• Leverage dominant market position without appearing overly aggressive</li> <li>• Expand retail outlets to develop more effective cash-out network</li> <li>• Measured acquisition and spend stimulation approach, with marketing and promotion budgets tied to current revenues</li> <li>• Link T-Cash to ATMs</li> </ul>
<b>Indosat</b>	<ul style="list-style-type: none"> <li>• 45 million active SIMs</li> <li>• Launched Dompetku in 2008</li> <li>• 70,000 Dompetku subscribers (10 percent active)</li> <li>• SMS-based</li> <li>• Holds money transfer and remittance license</li> <li>• Limited retail partners</li> <li>• Limited ability to cash options</li> </ul>	<ul style="list-style-type: none"> <li>• Establish retail acceptance points and cash out partners</li> <li>• Following a wait and see strategy – Not actively marketing product</li> <li>• Not investing in customer acquisition and usage stimulation</li> </ul>
<b>PT XL</b>	<ul style="list-style-type: none"> <li>• 42 million active SIMs</li> <li>• Launched Tunai in 2010</li> <li>• Supporting several bank mobile banking platforms</li> <li>• Awaiting money transfer and remittance license (application with Bank of Indonesia more than one year)</li> </ul>	<ul style="list-style-type: none"> <li>• Plans to serve unbanked/underbanked</li> <li>• Developing retail partnerships</li> <li>• Leverage coverage strength in Bali and Lombok</li> </ul>
<b>Axis</b>	<ul style="list-style-type: none"> <li>• 15 million subscribers (2009 service launch)</li> <li>• Received GSMA grant to procure Fundamo platform</li> <li>• Shares infrastructure with PT XL</li> </ul>	<ul style="list-style-type: none"> <li>• Partner with banks to support mobile money service delivery</li> <li>• Operating mobile money pilot with Bank Sinar in Bali, targeting currently unbanked customers</li> </ul>

Carrier	Details	Strategy
<b>Mandiri</b>	<ul style="list-style-type: none"> <li>• 8 million customers, 1,000 branches, more than 20,000 ATMs, 25,000 EDCs</li> <li>• Well respected brand in Indonesia</li> <li>• Mobile banking application enables top up, bill pay, balance check, and intra- transfer, inter-account transfers</li> <li>• Mobile banking pilot targeting low-end accounts using subsidiaries (Bank Sinar Harapan and Axis)</li> </ul>	<ul style="list-style-type: none"> <li>• Testing viability of reaching unbanked using mobile technology and other mechanisms</li> <li>• Continue to promote current account-based mobile application as a cost effective mechanism of serving existing customers</li> <li>• Investing in expansion of remittance services</li> </ul>
<b>BTPN</b>	<ul style="list-style-type: none"> <li>• More than 1,120 full branches and more than 539 microlending outlets</li> <li>• 800,000 pension accounts</li> <li>• 250,000 borrowers</li> <li>• In the process of procuring a mobile banking platform (April 2012)</li> <li>• Extremely low account opening balance</li> <li>• Interest-bearing savings (7 percent)</li> </ul>	<ul style="list-style-type: none"> <li>• Uses mobile channel to offer full suite of financial services to unbanked (e.g., savings, payments, loan products, insurance)</li> <li>• Active financial literacy program</li> <li>• Expansion strategy includes local agents</li> </ul>
<b>Bank BRI</b>	<ul style="list-style-type: none"> <li>• Nearly 30 million depositors and 2.4 million borrowers</li> <li>• Largest branch network in Indonesia, with more than 4,051 BRI units</li> <li>• Extensive ATM network</li> <li>• Offers mobile banking services via SMS</li> </ul>	<ul style="list-style-type: none"> <li>• Branch and ATM expansion outside urban areas</li> <li>• Emphasis on microlending</li> </ul>
<b>BPR KS</b>	<ul style="list-style-type: none"> <li>• Largest rural bank: 32 offices, 17 branches, 50 ATMs 10 cash outlets, 700 BPRs, 200,000 customers, and 2,000 mbanking customers — most upper income</li> </ul>	<ul style="list-style-type: none"> <li>• Looking to extend bill payment</li> <li>• Develop enhanced lending products</li> </ul>



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