IFC Mobile Money Scoping
Country Report: Rwanda

Margarete Biallas, John Ngahu and Scott Stefanski
In the first half of 2012, IFC undertook a series of six mobile financial services (MFS) market scoping studies across Sub-Saharan Africa to identify two countries in which it will provide broad and deep support to accelerate the uptake of branchless banking services. The countries included in this analysis were Rwanda, South Sudan, Liberia, Sierra Leone, Nigeria, and Cote d’Ivoire. These countries were chosen for the study because MFS were nascent, markets were difficult to reach, or other factors presented unique challenges. The Rwanda mission was undertaken from February 12th to 18th, 2012.

This deck summarizes the non-confidential findings that were obtained by IFC during the scoping mission. It provides a brief perspective on regulations, financial market, telecom market, and mobile financial service implementations.
About The MasterCard Foundation Program

IFC and The MasterCard Foundation (MCF) entered into a partnership in January 2012 focused on accelerating the growth and outreach of microfinance and mobile financial services in Sub-Saharan Africa. The partnership aims to leverage IFC’s expanding microfinance client network in the region and its emerging expertise in mobile financial services to catalyze innovative and low-cost approaches to expanding financial services to low-income populations.

The Partnership has three Primary Components

Microfinance
Through the partnership, IFC will implement a scaling program for microfinance in Africa. The primary purpose of the Program is to accelerate delivery of financial services in sub-Saharan Africa (SSA) through the significant scaling up of between eight and ten of IFC’s strongest microfinance partners in the region. Interventions will include product and channel diversification into underserved areas.

Mobile Financial Service
IFC and The MasterCard Foundation see tremendous opportunity to use agent and mobile banking strategies to accelerate the delivery of financial services to the poor. The partnership will (i) work in two nascent markets to accelerate the uptake of branchless banking services, (ii) work with existing providers to build deployments to scale and improve customer usage rates and (iii) identify factors that lead to robust business models that can be replicated elsewhere to profitably deliver financial services to the poor.

Knowledge & Learning
The partnership will include a major knowledge sharing component to ensure broad dissemination of results, impacts and lessons learned from both the microfinance and mobile financial services programs. These knowledge products will include topical research, rigorous monitoring of project outputs and outcomes and evaluations that attempt to establish the development impact of the intervention.
Acronyms

- AML  Anti-Money Laundering
- B2P  Business-to-Person (transfer)
- CDD  Customer Due Diligence
- EAPS East Africa Payments System
- FI   Financial Institutions
- FIU  Financial Intelligence Unit
- G2P  Government-to-Person (transfer)
- GDP  Gross Domestic Product
- IMF  International Monetary Fund
- KYC  Know Your Customer
- MFI  Microfinance Institution
- MFS  Mobile Financial Services
- MFSP Mobile Financial Services Provider
- MNO  Mobile Network Operator
- NBR  National Bank of Rwanda
- NPC  National Payment Council
- P2P  Person-to-Person (transfer)
- POS  Point of Sale Terminal
- RIPPS Rwanda Integrated Pmt Processing System
- RURA Rwanda Utilities Regulatory Agency
- SIMTEL Card Payment Switch
**Rwanda Summary**

- **Overall Mobile Money Readiness**: 4 (Excellent)
- **Current Mobile Money Solutions**: 2 implementations
- **Population**: 11.69 million (2012 est.)
- **Mobile Penetration**: 4.89 million, or 42.6%
- **Banked Population**: 1.5 million, 14% of population
- **Remittance % of GDP**: 2%
- **Percent under poverty line**: 56% (2006)
- **Adult Literacy**: 70%
- **Main banks**: Union des Banques Populaires du Rwanda (BPR) and Kenya Commercial Bank (KCB)
- **Mobile Network Operators**: MTN, Tigo, and Airtel
- **Additional comments**: Rwanda is poised for developing a shared agent network. This could be piloted with newly formed regional Savings and Credit Cooperative Societies (SACCOS). Some banks seem ready to embark on branchless banking strategies. They could benefit from technical support to refine these strategies and further design innovative products.
• Macro-economic Overview
  • Regulations
  • Financial Sector
  • Telecom Sector
  • Distribution Channel
  • Mobile Financial Services Landscape
  • Potential Risks
  • Appendix: Interviews Conducted
## Macro-Economic Overview

### Key Country Statistics

- **Population:** 11.69 million (2012 est)
- **Age distribution:** 42.9% (0-14 years), 52.7% (15-64 years), 2.4% (over 65 years)
- **Rural/Urban split:** 19% urban (2010)
- **GDP (PPP):** $13.46 billion, 140th globally (2011 est)
- **GDP per capita (PPP):** $1,300, 203rd globally (2011 est.)
- **Literacy rate:** 70.4%
- **Banking penetration:** 23% of adults or 14% of total population have formal access
- **Mobile phone penetration:** 42.6% of population (approx 4.89 million)
- **Remittance (% of GDP):** 2%, $270 million

### Insights

- Significant opportunity for electronic payment solutions tied to broad portfolio of services
- Explicit directive from government embracing financial inclusion, and laws in place providing necessary foundation for active engagement
- Public and commercial parties recognize need, and are designing products, services, and distribution strategies unique to the behaviors and conditions of Rwanda’s financially excluded citizens
- While mobile phone penetration is relatively low, opportunities presented for combination of card and phone products

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Sources: World Bank Group, World Development Indicators Database; CIA World Fact Book
• Macro-economic Overview

• Regulations

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• Telecom Sector
• Distribution Channel
• Mobile Financial Services Landscape
• Potential Risks
• Appendix: Interviews Conducted
**Regulatory Bodies**

**Roles & Responsibilities**

- **Central Bank**
  - National Bank of Rwanda (NBR) charged with oversight of all aspects related to payment system, including licensing of banks and non-bank providers.
  - Stakeholder input from National Payment Council (NPC) under NBR direction.

- **National Payment Council**
  - Subordinate organization under the oversight of NBR.
  - Serves as consensus building institution to provide guidance from banking, payments and telecom industries.
  - Comprises broad set of stakeholders who ensure consensus driven payment system.

- **Rwanda Utilities Regulatory Agency (RURA)**
  - Mission is to regulate public utilities, including telecom network and services.
  - Traditional telecom oversight governed by Telecom Law, member of the NPC.
  - Ensures access to mobile banking services for all, and protects users interests by encouraging competition.

**Implications**

- Highly coordinated methodology; resulted in rapid introduction and acceptance of laws and regulations governing payments sector and electronic transactions.
- Interaction between banks and Central Bank occurs through 1-to-1 discussions.
- NPC decides number and types of payment systems supported by the NPS initiative.
- Comprehensive portfolio of laws and regulations in place, now being harmonised to be more equitable to players.
- Direct communication between all key stakeholders and NBR, the singular governing authority, conducive to rapid responses to market feedback.
- Bank representatives validated that the market is easier to work in because of clear communication.
## Regulatory Framework & Requirements

### Current Regulations

<table>
<thead>
<tr>
<th>Mobile Money</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defined as “mobile payments” offered by non-banks</td>
</tr>
<tr>
<td>Non-bank digital wallet can serve as a non-interest bearing account (since 2010)</td>
</tr>
<tr>
<td>Enables P2P, bill payments, cash-in/out</td>
</tr>
<tr>
<td>Licence issued by NBR and funds held in a bank managed escrow.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Deposit Taking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allowed: Banks, MFIs, and SACCOS</td>
</tr>
<tr>
<td>Not allowed: MNOs and other non-banks which can only offer non-interest bearing wallets</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Retail Agents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agents of banks and MFIs treated as branches, i.e. each agent must be presented to NBR as if it were a new branch</td>
</tr>
<tr>
<td>Bank agents can receive deposits, pay out monies, and process a limited range of transactions</td>
</tr>
<tr>
<td>Non-bank agents can only conduct cash in/out transactions</td>
</tr>
<tr>
<td>New rules under development</td>
</tr>
</tbody>
</table>

### Implications

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Resulted in two, and soon, three providers of mobile money services</td>
</tr>
<tr>
<td>Similarities and differences with conducting banking transactions via a mobile phone, not yet considered; result has been limitations in ability of unbanked to evolve from wallets to simple bank services</td>
</tr>
</tbody>
</table>

<p>| |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Updated guidelines of July 2012 define branchless banking requires backing of a commercial bank though banks may engage third-party outlets to conduct consumer facing at least basic activities of cash in/out and cash deposits in addition to payments</td>
</tr>
<tr>
<td>Non-banks do have possibility to accommodate a “payment account”, akin to a wallet, provided funds are held in trust account with commercial bank and not leveraged by non-bank</td>
</tr>
<tr>
<td>Banks and non-banks required to report each agent through NBR</td>
</tr>
<tr>
<td>Non-exclusivity mandates permit agents to serve multiple institutions</td>
</tr>
</tbody>
</table>
## Regulatory Framework & Requirements

### Current Regulations

#### KYC/AML Requirements
- Customer ID, such as valid official document with picture required for all transactions*, required
- Non-banks can view and record customer details without making copies of actual documents

#### Payment Systems
- Electronic messages, transactions, and signatures recognised and enforceable
- Payment systems law covers entire infrastructure, players, and systems
- NBR leads oversight of payment systems and activities of payment service providers
- NBR harmonizing payments regulations to make them more equitable to various service providers

#### Licensing requirements
- NBR responsible for licensing bank and non-bank institutions engaged in payment systems and mobile financial services

### Implications

#### According to IMF 2011 review, while AML Law established, much to be done to enact
- Should begin by establishing Financial Investigation Unit at NBR
- Everyone over 16 should carry their ID to carry out financial transactions
- MNOs attributing high uptake to light KYC

#### E-transaction law means e-transactions are enforceable giving confidence to the market
- Interviews indicate a sound and thorough regulatory framework is in place, with the exception of the branchless banking guidelines that will shortly be released
- Players familiar with interoperability objective, but unclear about functional implications
- Visanet allows domestic transactions to be settled in Rwandan Francs eliminating potential forex loss

#### MNOs fall under NBR oversight like other non-banks

*Passport, national ID, or driver’s license
<table>
<thead>
<tr>
<th>Additional Regulatory Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Regulations</strong></td>
</tr>
<tr>
<td><strong>Customer Acquisition</strong></td>
</tr>
<tr>
<td>- Banks, MFIs, and their licensed agents can perform customer acquisition functions</td>
</tr>
<tr>
<td>- Regulations do not accommodate the use of MNO agents acquiring customers for banks</td>
</tr>
<tr>
<td><strong>Customer Protection</strong></td>
</tr>
<tr>
<td>- RURA, a member of the NPC, makes customer protection one of its key roles</td>
</tr>
<tr>
<td>- Covered by a host of regulations and institutions under broader payments laws</td>
</tr>
<tr>
<td><strong>Interoperability</strong></td>
</tr>
<tr>
<td>- Rwanda Integrated Payment Processing System (RIPPS)* serves as national hub to support drive to interoperable payments</td>
</tr>
<tr>
<td>- All bank systems required to link to RIPPS</td>
</tr>
<tr>
<td><strong>International Remittances</strong></td>
</tr>
<tr>
<td>- Linking RIPPS to East Africa Payments System (EAPS), cross-border solution being worked on by Central Banks in East Africa</td>
</tr>
<tr>
<td>- Linking RIPPS to Comesa Regional Payment and Settlement System (REPPS)</td>
</tr>
</tbody>
</table>

| **Implications** |
| **Customer Acquisition** |
| - 14 banks, SIMTEL, VisaNet and NBR all interconnected through RIPPS - solid foundation for expanding vision of ubiquitous payment system platform |
| - Agent level interoperability exists using mVisa, under negotiation more broadly |
| - Customer level interoperability introduced through mVisa solution |
| - IMF cites existence of loop hole that permits non-licensed parties to accept deposits |
| - Need to harmonise application of various regulations, so players are clear about roles |
| - Opportunity to ‘plug’ into cross border MFS in a region with successful models |
| - Intraregional cross border trade to be settled in the five East African countries currencies |

* Includes ACH, RTGS and security registry
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Financial Sector Overview

<table>
<thead>
<tr>
<th>Regulated financial Institutions</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Banks</td>
<td>9</td>
</tr>
<tr>
<td>Microfinance Banks</td>
<td>3</td>
</tr>
<tr>
<td>SACCOS</td>
<td>497</td>
</tr>
</tbody>
</table>

Net Current Transfers

- Current Transfers (net) $880.57
- Current Private Transfers (net) $133.31
- Remittances from Diaspora (inflows) $166.18** (increase of 69.2% in 2011)
- Current Officials Transfers (net) $747.25

Banking Operations

<table>
<thead>
<tr>
<th>Banking Operations</th>
<th>2010</th>
<th>2011</th>
<th>Variation %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Volume</td>
<td>Amount (USD)</td>
<td>Volume</td>
</tr>
<tr>
<td>Cash Withdrawals</td>
<td>59,421</td>
<td>$13.74 M</td>
<td>60,086</td>
</tr>
<tr>
<td>Cash Deposits</td>
<td>81,401</td>
<td>$3.76 M</td>
<td>111,404</td>
</tr>
<tr>
<td>Funds Transfers Processing</td>
<td>51,002</td>
<td>$481.1 M</td>
<td>266,990</td>
</tr>
<tr>
<td>Checks Processing</td>
<td>97,454</td>
<td>$2.74 M</td>
<td>35,496</td>
</tr>
<tr>
<td>Opening of Accounts</td>
<td>249</td>
<td>--</td>
<td>382</td>
</tr>
</tbody>
</table>

Card Statistics

- Debit Cards Issued 116,000
- Daily Payment Transactions (2010) 375
- ATMs 200 +
- POS Terminals 250 +

## Bank Snapshot: Rwanda

<table>
<thead>
<tr>
<th>Bank Name</th>
<th>Customers</th>
<th>Branches</th>
<th>Sub-Branches</th>
<th>ATMs</th>
<th>POS Terminals</th>
<th>Debit Cards Issued</th>
<th>Mobile Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Union des Banques Populaires du Rwanda (BPR)</td>
<td>1.4 m</td>
<td>18</td>
<td>109</td>
<td>46</td>
<td>173</td>
<td>15,250</td>
<td>10% of customer base uses mobile solution, Recently obtained Visa licence for their ATMs</td>
</tr>
<tr>
<td>Bank of Kigali</td>
<td>126,000</td>
<td>41</td>
<td></td>
<td>46</td>
<td>173</td>
<td>15,250</td>
<td>27.4% of all Rwanda bank assets (July 2011)</td>
</tr>
<tr>
<td>Urwego Opportunity Bank (UOB)</td>
<td>97,000</td>
<td>8</td>
<td>28</td>
<td>No ATMs</td>
<td></td>
<td></td>
<td>New mobile based service being trialed with a small group of agents, Working with KCB for cash out, Pivot Access agents for cash in, Conducting a pilot with Visa to make group loan payouts via mobile channel using mVisa</td>
</tr>
<tr>
<td>Kenya Commercial Bank (KCB)</td>
<td>59,000</td>
<td>10</td>
<td></td>
<td>15</td>
<td></td>
<td>30,000</td>
<td>15 ATMs and no POS terminals, 200 branchless agents; sharing with UOB, Using WIZZIT platform</td>
</tr>
</tbody>
</table>
**Bank Snapshot: Rwanda**

**Banque Commerciale du Rwanda (BCR)**
- Unknown customers
- Unknown branches
- Have been very active looking at branchless access to finance
- First to introduce electronic banking (balances) in Rwanda (2006)
- Offering package of Internet banking for corporate and SME customers (transactions, STP, mobile banking) since Oct 2011
- Now integrating with MNO mobile wallets

**Equity Bank**
- 30,000 customers
- 10 branches
- Entered Rwanda Market in October 2011, official launch February 2012, fast consumer adoption
- 12 ATMs (in 2012 ATMs will take deposits) and no POS terminals
- Interested in engaging with SACCOS, the engagement strategy is under development
- Seeking interoperability through connections to switches of existing market players

**Fina Bank**
- 20,000 customers
- 13 branches
- 14 ATMs and no POS terminals
- Plans pilot with a SACCO in Apr/May 2012; live by end 2012
- Launching mobile banking for existing customers—Finalink (2012)
- Sees need for SLA for shared agents as there was for shared ATMs
### MFI Snapshot

#### MFI + SACCOS Landscape: RWANDA

<table>
<thead>
<tr>
<th>SACCOS</th>
<th>Licensed SACCOS</th>
<th>Non-Licensed SACCOS</th>
<th>TOTAL SACCOS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>196</td>
<td>290</td>
<td>486</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Umurenge SACCOS (subset of SACCOS above)</th>
<th>Licensed Umurenge SACCOS</th>
<th>Non-Licensed Umurenge SACCOS</th>
<th>TOTAL Umurenge SACCOS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>139</td>
<td>277</td>
<td>416</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Public Ltd. Liabilities (SA) + Private Ltd. Liabilities (SARL)</th>
<th>Licensed: Public Ltd. Liabilities (SA) + Private Ltd. Liabilities (SARL)</th>
<th>Non-Licensed: Public Ltd. Liabilities (SA) + Private Ltd. Liabilities (SARL)</th>
<th>TOTAL Public Ltd. Liabilities (SA) + Private Ltd. Liabilities (SARL)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11</td>
<td>0</td>
<td>11</td>
</tr>
</tbody>
</table>

**TOTAL MFIs**: 497

- **Savings and Credit Cooperative Societies (SACCOS):**
  - 98 SACCOS, covering a mix of trade and institution specific targets
  - Offering loan and/or savings portfolio
  - In 2010, Teachers SACCO involved in mobile payment focused on salary distribution; 57,000 teachers participated
    - Practice appears to have stalled due to contractual matters

- **Umurenge Savings and Credit Cooperative Societies (Umurenge SACCOS):**
  - Umurenge SACCOS are district level savings societies that were created by the government in 2010
  - 416 Umurenge SACCOS in Rwanda (1 in each district); 139 Umurenge SACCOS were awarded licenses
  - Offers loan and/or savings portfolios
  - Rise in number of Umurenge SACCOS has increased credit extension to rural agro businesses ($8.48m by Nov 2011 from $13.35m in 2010)
  - Expected to be primary method of banking by 2017, serving 80% of rural population

- **SA + SARLs are Rwandan Micro Finance Institutions (MFIs)**

Sources: Central Bank 2010, 2011 Annual Report; Market Interviews

* VPPS is described in Central Bank information but not live at time of preparation of this document
Payment Service Provider Snapshot

**Rwanda Integrated Payments Processing System (RIPPS)**
- NBR operated framework for coordinating all electronic payment systems in the country
- Existing and new payment systems expected to interconnect to appropriate RIPPs components.
- Contains the Automated Transfer System (ATS), which is composed of an Automated Clearing House (ACH) and Real Time Gross Settlement System (RTGS) for large value and time critical (wire) payments. Has 16 participants - 14 banks, NBR, and SIMTEL connection
- RIPPS also houses the Central Securities Depository (CSD) for debt and equity securities
- RIPPS infrastructure being utilized for settlement of domestic Visa transactions. National bank acting as settlement agent for all Visa bank partners to localize domestic retail, ATM and mobile transaction clearing and settlement services

**Card Payment Switch (SIMTEL)**
- NBR operated system for proprietary cards and infrastructure serving domestic transactions
- Connected to, but not considered, an element of RIPPS
- Originally envisioned as a singular national payment switch for all retail payment types
- Technical difficulties have resulted in SIMTEL losing its status as exclusive payments switch in 2012
- Banks have been forced to invest in their own internal switches or are looking for an alternative; NBR seeking to provide a solution
VisaNet

- Visa currently partnering with 10 banks in Rwanda, 5 of whom are issuing Visa cards: historically, most activity driven through Bank of Kigali
- More than 85% of ATMs in Rwanda are now connected to Visa: more than 2/3 of POS now accept Visa cards
- Historically, all Visa transactions were settled in foreign currency
- Since March 2012, all domestic Visa transactions are now settled locally, in Rwandan Francs, via Visa National Net Settlement System and the National Bank of Rwanda as the settlement agent.

mVisa

- Visa has launched a new mobile service designed to meet basic banking needs of Rwanda’s unbanked and underserved population.
- The service, mVISA, overcomes lack of access to physical bank branches and works across different financial institutions and mobile networks. The offering comes with optional outsourced processing services based on technology from Fundamo.
- To help build a robust and sustainable electronic payments industry, Visa launched the Visa Rwanda Ubumenyi (Knowledge) Series - a year-long course for banks, government officials, regulators, law enforcement officials and financial institutions.
- Nationwide street theater (coordinated by Visa & government) performances, radio programs, youth-oriented video games and more, have helped bring the basics of budgeting, saving and other financial matters to over 40,000 Rwandans
Rwanda E-Payment Analysis

- Due to a highly proactive government, Rwanda has put in place a comprehensive framework for e-payments, driven by a visionary goal to enable a cashless society by 2017.

- Understanding size limitations of Rwanda’s total addressable market, general consensus is emerging that the only cost-effective method for expanding payments, and banking services broadly, is to share networks through agent interoperability.

- Effort to introduce a government-sponsored national payment switch, SIMTEL, proved ineffective because of technical challenges leading to unsatisfactory uptime. Result led government to more proactively collaborate with VISA to provide a commercial alternative. To the extent strategy has been defined, there is strong support from banks.

- mVisa has been being launched with Bank of Kigali and Urwego Opportunity Bank.
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Mobile Network Overview

**Mobile Profile**

<table>
<thead>
<tr>
<th>Mobile Operators</th>
<th>3 GSM MNOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile Coverage</td>
<td>Over 97.3%</td>
</tr>
<tr>
<td>Mobile Subscribers</td>
<td>4.4 million (38% pop) (Q1 ‘12)</td>
</tr>
</tbody>
</table>

**Coverage and Penetration of Mobile Cellular Technology (%)**


**Mobile Operator Market Share (%)**

- **Tigo**: 34%
- **MTN**: 66%

Source: Wireless Intelligence, March 2012

*Airtel entered market in 2012, subscriber details not available*
Mobile Network Operators

**MTN**
- 2.9 million subscribers
- 66% Market share
- Owners: MTN (80%) and Crystal Ventures (20%)
- 600 Agents
- $75 to $85 million transacted thus far
- SIM cost ~ $1.5
- P2P is 70-80% of transactions
- Working primarily with Commercial Bank of Rwanda

**Tigo**
- 1.5 million subscribers
- 34% Market share
- Owner: Tigo (Millicom) (87.5%)
- 900 agents (stores and roaming)
- 200,000 registered accounts
- Primary transactions: airtime top-up (50%), P2P transfers (25%), and deposits/withdrawals (25%)

**Bharti Airtel**
- 0% Market share
- 0 Subscribers
- Acquired license in Sept 2011, and entered market in 2012
- Touting a pure IP infrastructure
- Has partnered with Equity Bank in other countries
Mobile Outlook

• Current situation
  ✓ Mobile penetration: 38%
  ✓ Mobile geographic coverage: 97.9%

• Trends/expectations
  ✓ 2010-2011 growth rate: 25%
  ✓ 7.4 million subscribers, 58% population penetration EOY 2016 (estimated)
  ✓ Rwanda authorities are integrating ICT and mobile technologies in all government operations, driving increased usage of technology across Rwanda and accelerating demand

• Implications for mobile money
  ✓ Government directive to move Rwanda to a cashless economy could have a significant, though unquantifiable, impact on the scale and uptake of mobile financial services
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## Distribution Landscape *

<table>
<thead>
<tr>
<th>Distribution Point</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank Branches</td>
<td>147</td>
</tr>
<tr>
<td>Bank Outlets (not formally defined; understood as a single desk service with no specific co-location guidelines)</td>
<td>198</td>
</tr>
<tr>
<td>ATMs (most located at branches or outlets)</td>
<td>223</td>
</tr>
<tr>
<td>SACCOS (saving/lending cooperatives)</td>
<td>98</td>
</tr>
<tr>
<td>UMURENGE SACCOS (newly established district level cooperatives)</td>
<td>416</td>
</tr>
<tr>
<td>Branchless Agents - Bank Managed</td>
<td>207</td>
</tr>
<tr>
<td>Branchless Agents - Mobile Operator Managed</td>
<td>1,500</td>
</tr>
<tr>
<td>Branchless Agents - 3rd Party Managed</td>
<td>600</td>
</tr>
</tbody>
</table>

- Expanded access to financial services in Rwanda is occurring due to a national effort to increase availability through newly created district level Savings and Credit Cooperative Societies (UMURENGE SACCOS).
- Deliberations are underway among NBR and banks to share these SACCOS as agents for payment services, withdrawals, and, potentially, for customer acquisition.

* Content of table is largely limited to direct bank initiatives, potential of utilizing MNO agents for cash in/out services were not included.
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Rwanda Mobile Financial Services Overview

• Rwanda permits both mobile operator-led mobile money (wallet) and bank-led mobile banking models

• National efforts underway to institute agent interoperability will enable models to co-exist, interface between mobile money and formal bank accounts is likely to be supported in a “bill-pay” convention

  ✓ Consumer would “pay” their personal bank account from mobile money wallet as they would make a mobile bill payment
  ✓ Will also accommodate “top-off” of a wallet through a bank account transfer

• While not fully defined, anticipated that agent sharing will mimic conventions of ATM network interoperability and service fee agreements to address investment differentials in building out and maintaining different size agent networks

• Government’s intention to expand financial inclusion and enable a cashless society have been embraced throughout the financial and mobile sectors leading to active involvement of all players
Mobile Financial Service Initiatives: MNOs

- Commercial Bank of Rwanda (BCR) is the primary bank behind the initiative, MTN views services as complementary to what banks offer.
- The service has seen significant increase in customer base and transactions within 14 months from launch.
- As of February 2012, $73.47 million had been transferred.
- Launched with 120 agents; 201 after five months (80 in Kigali); goal 1 every 5km radius.
- Permits registered and unregistered users; enables bulk salary payments, has found everyone over 16 years of age has a national id.
- Working on managed service version of Fundamo, wouldn’t go so far as being a hosted MIS for bank.
- Pushing for interchange fees to be negotiated before interoperability is fully in place.

MTN Mobile Money (Feb 2010)

- Over 200,000 accounts created.
- Initially focused on air-time top-up, expanding to utility bill pay. Also interested in insurance products but focusing on main priorities for now.
- 50% transactions are top-up, 25% P2P, 25% cash in/out.
- Would like to interface with ATMs in the future.
- Has a single bank escrow account. Partner bank unknown.
- Same platform as Tanzania, TIGO Cash does not connect to RIPPS.

Tigo Cash (Apr 2011)
Mobile Financial Service Initiatives: Banks

- Started mobile product with informational services to replace passbooks, utility payments, phone to account payments

- Launched Izi Cash Mobile Money, a mobile-to-ATM product that allows even non-account holders to withdraw cash; will evolve to a mobile wallet and later link to full account
  - Interesting in offering BPR ATMs for withdrawal to MFS providers

- Starting with proprietary agent network slated to launch September 2012, will support interoperability via RIPPS later
  - Open to collaborating on interoperable agents for cash in/out provided an interchange fee can be negotiated
  - Thinking of MNO providing cash in/out for BPR, but not yet resolved; in part due to KYC requirements which are not clear in regards to what MNO agents can do
  - Open to integrating with an interoperable model but needs more clarity
  - Would be willing to integrate their switch directly to VISA switch
  - Like many market players, not satisfied with the quality of service provided by SIMTEL
Mobile Financial Service Initiatives: Banks

**UOB**
- Conducting a pilot (on some business transaction aspects) via mobile channel using Fundamo platform
- Cautious about introducing a mobile payment solution and not simultaneously disrupting value of community engagement and social pressure for repayment
- Elected to tackle most difficult of its regions first to learn how to tackle all; found great difficulty with liquidity and agent access
- Striving to be operational with mobile payment solution by end of 2012
- Working with Kenya Commercial Bank for cash out; Pivot Access agents for cash in

**KCB**
- Utilizing Mobibank as a new mobile banking platform
- Long term focus is on transitioning economy to cashless society
- Switching to Visa card platform and sees potential role for Visa in interoperability
- Part of strategy is working with agribusiness and connecting cooling plants to agent network

**Banque Commerciale du Rwanda (BCR)**
- Maintain the escrow account for MTN mWallets with a view to retain customers
- Next stage, bank-to-mobile (e.g. payments to coffee farmers); mobile-to-bank (bill pay), SME can be a “bill pay” recipient
- Looking to MTN and Tigo to provide agents, sees interoperable agents like ATMs, over time
- Concern about the business case given low volume of activity for a small country
## Mobile Financial Service Initiatives: Banks

### Equity Bank
- Agents use a wireless POS and print receipts, focusing on liquid merchants as agents
- Testing out an application “24/7”, low level phone support
- Part of Equity Bank vision is interoperable agents with agreed interchange fees, waiting for Central Bank to set the rules of the scheme
- Negotiating to integrate with existing mobile wallets (MTN, Tigo); planning to connect to both to test their switch
- Negotiating with established players for interoperability through connections to their switches

### Fina Bank
- Strong focus on technology adoption for current customer base, using Craft Silicon
- Finalink launched for mobile banking in January 2012
- Firmly believes in gradual introduction of products to customers. Main focus in 2012 will be the roll-out of additional ATMs
- Sees SACCOs as potential agents for cash in/out and sign up, piloting with SACCOs in April/May 2012 and plans to go live August/Sept 2012
- Plan for both MoneyGram and Western Union transfers via SACCOs
- Wary to move too quickly into digital transfers beyond bill payments for security reasons
Mobile Financial Service Initiatives: Critical Partnership

An important partnership between Visa and the Government of Rwanda was signed in November 2011, intention is to develop local payment solutions to extend access to financial services to international and local consumers throughout the country. The partnership addresses three critical areas:

- Lays the foundation for electronic payments
- Promotes electronic payments innovation
- Builds the country’s financial capacity

Source: 2011 National Bank of Rwanda (NBR) Annual Report, pg 90
Mobile Financial Service Initiatives: Non-banks

- In Dec. 2012, Visa announced it has launched a new mobile service designed to meet basic banking needs of Rwanda’s unbanked and underserved population.
- The service, mVisa, overcomes lack of access to physical bank branches and works across different financial institutions and mobile networks.
- The offering comes with optional outsourced processing services based on technology from Fundamo, a South African company acquired by Visa in 2011.
- mVisa is being launched with Bank of Kigali and Urwego Opportunity Bank.

Visa Payment Processing Solution (VPPS) - Notional naming -

Elephant Business Group

- Plans use its contract to facilitate electronic payments to teachers (~57,000) through teacher union SACCO and Umurenge SACCOS, means for introducing managed service backend solution to more SACCOS.
- Planning to use Mifos implementation hosted on Salesforce.com.
• Macro-economic Overview
• Regulations
• Financial Sector
• Telecom Sector
• Distribution Channel
• Mobile Financial Services Landscape
• Potential Risks
• Appendix: Interviews Conducted
Risks

- Political influence in Rwanda is relatively high in most sectors of the market, which could influence plans, pilots, and other activities.

- Rwanda’s mobile penetration is relatively small, therefore impact could be delayed and/or minimized.

- Having multiple banks and other parties agree on an interoperable scheme could complicate, delay, or even, halt, implementation until full agreement reached - which could take one or more years.

- Interoperability and shared agent infrastructures among mobile financial service providers is unproven and untested.

- Desire by most banks to use UMURENGE SACCOS to build out agent networks could pose a capacity challenge since the operational capacity of these SACCOS is limited.
- Macro-economic Overview
- Regulations
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