

IFC MOBILE MONEY SCOPING

COUNTRY REPORT: RWANDA



Creating Markets, Creating Opportunities

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RWANDA SUMMARY

CURRENT MOBILE MONEY SOLUTIONS Currently 6 mobile money solutions offered; 3 MNO offerings (largest), 3 Bank offerings.

POPULATION 12.98 million

MOBILE PENETRATION 9 million mobile subscribers (80% penetration according to RURA)

FINANCIALLY INCLUDED POPULATION 38% through financial institutions, 42% overall, 18% through mobile accounts [Source: World Bank FINDEX]

PERCENT UNDER POVERTY LINE 39.1% (2015) [Source: CIA]

ECONOMICALLY ACTIVE POPULATION Labour force: 5.9 million (2015) [Source: CIA]

ADULT LITERACY 70.5% (2015) [Source: CIA]

MOBILE NETWORK OPERATORS

- MTN 34% market share
- Tigo 31% market share
- Airtel 20% market share
- KT Rwanda Networks 6% market share

OVERALL READINESS RANKING **3 (moderate)**

Rwanda's regulation and policies promote digital financial services and discourage the use of cash. Financial inclusion in the country has shown significant improvement in the last 4 years, primarily because of mobile money. However, the financial sector currently does not offer competitive agent banking solutions. Market participants all agree that strong customer education and marketing is required.



| Market Readiness | |
|------------------|---|
| Regulation | 4 |
| Financial Sector | 2 |
| Telecom Sector | 4 |
| Distribution | 3 |
| Market Demand | 3 |

Macro-economic Overview

Regulations

Financial Sector

Telecom Sector

Other Sectors

Digital Financial Services Landscape

MOBILE BANKING MARKET POTENTIAL

Key Country Statistics

- Population: 12.98 million¹
- Age distribution: 41% (0-14 years), 19% (15 -24 years), 33% (25-54 years), 4% (55-64 years), 3% (over 65 years)¹
- Median age: 19¹
- GDP (PPP): \$20.4 billion (2015)¹
- GDP per Capita (PPP): \$1,900 (2015)¹
- Urban/Rural split: 28.8% of population lives in urban areas (2015)¹
- Population below poverty line: 39.1% (2015)¹
- Literacy Rate (age 15 and over can read and write): 70.5% total, 73.2% male and 68% female (2015)¹
- Account Penetration: 42% all transaction accounts, 38% account with financial institution, 18% mobile account²
- Net Recipient of Remittances: Outflows \$126 million (2014), Inflows \$128 million (2015) [Source: World Bank]
- Labour force: 5.9 million (2015)¹
- Mobile Money Subscribers: 7.6 million (2015) [BNR]
- Mobile Penetration: 80% (2015) [Source: BNR]
- Internet penetration: 18% (2015) [Source: World Bank]

Insights

- Two-thirds of the adult population is younger than 35, the majority is also rural and a significant share lives below the poverty line.³
- The Government of Rwanda (GoR) has taken a number of key steps that are conducive to the development of mobile money;
 - Set the ambitious target to become a middle-income country by 2020 (Vision 2020)³
 - Signed an agreement with Ericsson to develop a Rwanda Interconnect Switch (RIS)⁴
 - Signed an MoU with MasterCard to meet Rwanda's 2020 Vision of a Cashless society⁵
 - Entered into a PPP with kt – kt Rwanda Networks - install and activate a wide-ranging high-speed broadband network
 - Signed the Maya Declaration 2011, committing to increase the proportion of Rwandan adults with access to formal financial services from 21% to 80% by 2017

¹ Data as at 2016, unless otherwise noted. Source: [CIA World Factbook](#) accessed October 13, 2016.

² Data as at 2014. Source: World Bank Global FINDEX

³ Financial Inclusion Insights – National Survey Report Rwanda (CGAP, 2015)

⁴ [Ericsson and Rwandan Government collaborate on financial inclusion](#) (Ericsson Press Release, May 13, 2016).

⁵ [MasterCard Press Release](#) (MasterCard, May 2016)

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REGULATORY BODIES INVOLVED IN MOBILE BANKING

Roles & Responsibilities

National Bank of Rwanda (BNR)

- Article 6, 4^o of the Law N^o 55/2007 of 30/11/2007 outlines National Payment System oversight as one of the key functions of the BNR.
- BNR oversees all payment and securities settlement systems, including those it operates and those operated by other entities, payment service providers, payment system operators, payment instruments and remittances.

Rwanda Utilities Regulatory Authority (RURA)

- RURA regulates certain public Utilities, telecommunications.
- RURA's mandate is to license, monitor and enforce license obligations, manage scarce resources, advise policy makers on ICT related issues.
- Issued 2013 regulation requiring SIM card registration, the establishment of a database of all registered subscribers and outlined hefty fines for non-compliance.³

Implications

- The BNR has licensed 10 Payment Service Providers (PSPs) and 2 Payment System Operators.
- In 2015, the National Bank Rwanda (BNR) approved cross-border mobile money.¹
- BNR published an interoperability policy in June 2014, with the stated aim to promote high levels of effective and efficient interoperability in all significant payment streams. The stance may range from simply encouraging, to guiding how it can be accomplished and, only where necessary, mandating underlying requirement in the form of directives.²

¹ [Rwanda: Telecoms – 2015 a year of innovation, tight competition and uncertainty](#) (allAfrica, December 29, 2015).

² [Interoperability Policy](#) (BNR, 2014).

³ [Regulations on SIM Card Registration](#) (Regulatory Board, RURA, January 2013)

REGULATORY FRAMEWORK, SLIDE 2

Current Regulations

Payment Service Providers (PSPs)

- Defined as any entity providing services enabling cash deposits, withdrawals, execution of payment transactions, issuing and/or acquisition of Payment Instruments, money remittances or any other services functional to the transfer of money.¹
- BNR, through its oversight function, aims to achieve access, risk control, transparency, fair pricing, and system reliability.¹
- There are 10 PSPs licensed by BNR, including mobile money providers such as MTN Rwanda, Tigo Rwanda, Airtel Rwanda, Mobicash.

Payment System Operators (PSOs)

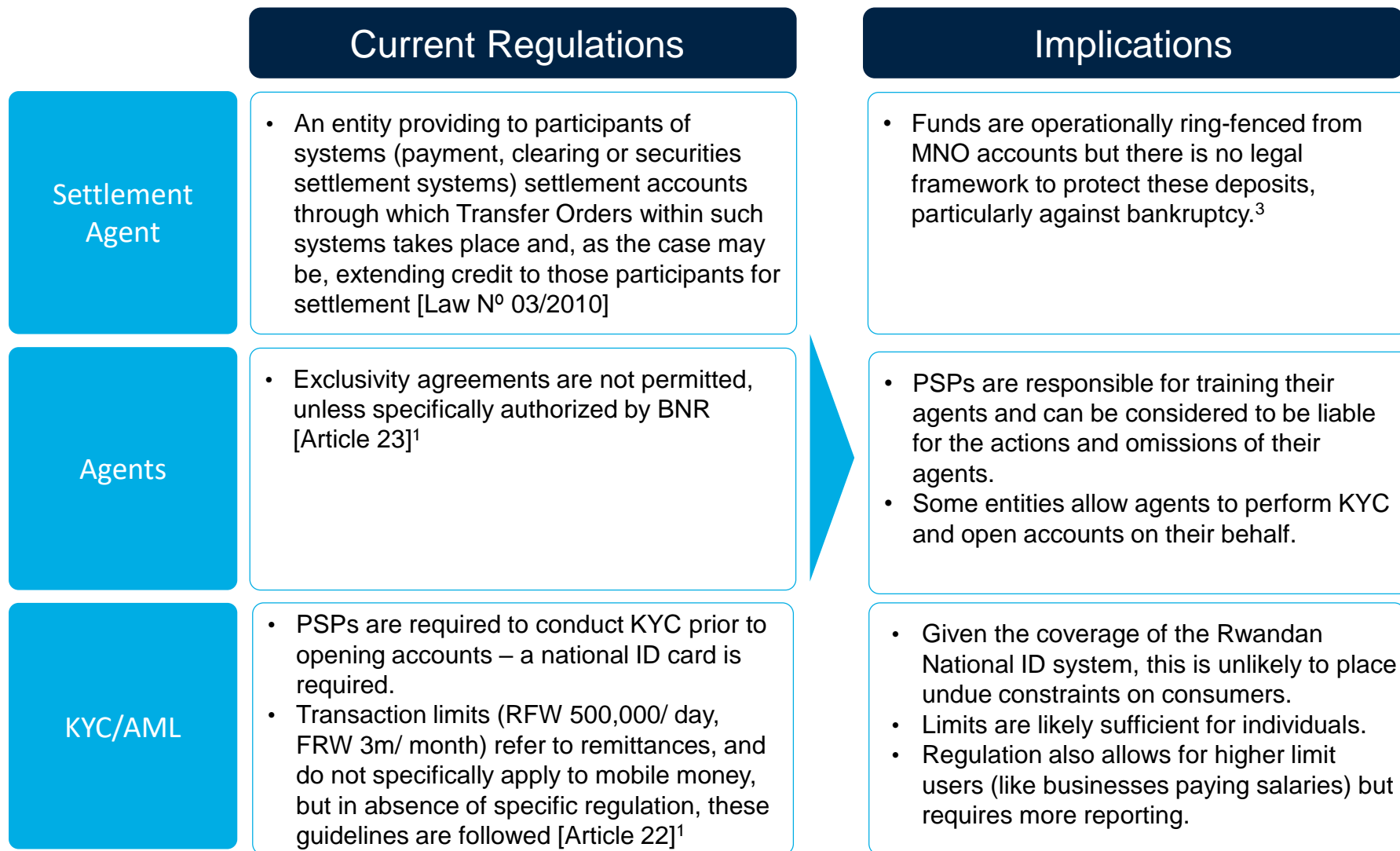
- Defined as entities that operate/own payment systems and may be BNR, commercial banks, MFIs, switches, telecoms or other entities.
- The BNR has licensed 2 Payment System Operators:
 - Rswitch Ltd
 - VISA Rwanda Ltd

Implications

- Market open to all and requirements are functional – based on the type of service offered, not the type of entity offering the service.¹
- Important pieces of legislation include:
 - Law N° 18/2010 of 12/05/2010 relating to electronic messages, electronic signatures and electronic transactions
 - Law N° 03/2010 of 26/02/2010 concerning Payment Systems (BNR can regulate bank and non-bank FIs)
 - Regulation N° 06/2012 governing Payment Service Providers

¹ [Oversight Policy Framework for Financial Market Infrastructures in Rwanda](#) (BNR, 2014).

REGULATORY FRAMEWORK, SLIDE 3



¹ Regulation N° 06/2012 governing Payment Service Providers (National Bank of Rwanda, 2012).

² Law N° 03/2010 of 26/02/2010 concerning Payment Systems (National Bank of Rwanda, 2010).

³ The regulation of Mobile Money in Rwanda (International Growth Centre (IGC), August 2013).

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FINANCIAL INCLUSION AND THE ROLE OF DFS

Access

- Mobile money agents were more accessible – as measured by time taken to reach destination – across all provinces and overall (31 minutes vs 50 minutes or more for Bank agent, bank branch, MFIs or ATMs¹)
- Penetration of financial access points (per 100,000 adults)²
 - commercial bank branches 4.1
 - ATMs 5.3
- 87% adults have an ID that would allow them to open an account in the formal financial sector³

Ownership/Usage

- The increase in the percentage of adults who were formally served, though not banked, from 19% in 2012 to 42% in 2016 was largely driven by uptake of mobile money and Umurenge SACCOs¹
- Rates of ownership among Ugandan adults (age 15+) ⁴
 - Account 42.1%
 - Mobile account 18.1%
 - FI account 38.1%
- Debit cards (4.5%) are more common than credit cards (1.2%); both are rarely used⁴
- Rwandans are more likely to be active mobile money users (21%) than active bank account users (11%)³

Key Insights

- Only 4% of adults consider mobile money a trusted as a place to save – lower than both banks (27%) and Umurenge SACCOs (57%) – but 84% consider it safe for remittances¹
- Usage of mobile money is limited to airtime top ups and P2P transfers;
 - 1 in 3 adults only use their mobile money account to remit money or buy airtime and only 17% use it to store or save money¹
- Customer education is remains a challenge¹
 - 32% of adults did not know about mobile money, 24% thought a smartphone was required, 13% did not know where to find an agent

¹ Financial Inclusion in Rwanda 2016 (Access to Finance Rwanda, 2016).

² Data as at 2014 for bank branches and 2013 for ATMs. Source: World Development Indicators (World Bank, 2016). Accessed on September 26, 2016 <http://data.worldbank.org/data-catalog/world-development-indicators>

³ Financial Inclusion Insights – National Survey Report Rwanda (CGAP, 2015)

⁴ Data as at 2014. Source: Global Findex (World Bank, 2014)

FINANCIAL SYSTEM OVERVIEW

BANKS

- There are 17 banks licensed by the National Bank of Rwanda (BNR)¹
 - 12 commercial banks
 - 3 micro-finance banks
 - 1 development bank
 - 1 cooperative bank
- At least 12 of the 17 banks are currently issuing payment cards

NON-BANK FINANCIAL INSTITUTIONS (NBFIs)

- BNR mandate is to protect the interest of policy holders and pensioners by ensuring that these institutions are financially sound and stable
- NBFIs in Rwanda include insurance companies and pension funds

MICROFINANCE INSTITUTIONS (MFIs)

- BNR's mandate to regulate and supervise Microfinance institutions includes licensing of MFIs, off-site surveillance and on-site inspection of MFIs
- Microfinance institutions include Savings and Credit Cooperatives (SACCOs) and some limited companies that operate microfinance activities

CREDIT BUREAU

- BNR supervises the private credit reference bureau licensed by the National Bank of Rwanda

PAYMENT SERVICE PROVIDERS

- There are 10 PSPs licensed by BNR, including;
 - Mobile money providers such as MTN Rwanda, Tigo Rwanda, Airtel Rwanda, Mobicash
 - Remittance service providers such Dahabshiil, UAE Exchange, Mustaqbal etc

PAYMENT SYSTEM OPERATORS

- Licensed providers include:
 - Rswitch Ltd
 - VISA Rwanda Ltd
- Governed by 05/2010 Operating Payment & Settlements System and 06/2010 Oversight of Payment Providers and Systems

ForEx BUREAU

- BNR is responsible for regulating and supervising Forex Bureaus
- Foreign exchange services are available at 90 locations across Rwanda, 2/3 of which are located in Kigali

¹ List of Licensed Banks, BNR [website](#), accessed October 14,2016

FINANCIAL SYSTEM OVERVIEW – DISTRIBUTION NETWORK

| Type of Institution ¹ | Number of Locations | Share |
|----------------------------------|---------------------|--------|
| Umurenge SACCO | 416 | 28.49% |
| Mobile Money | 299 | 20.48% |
| Commercial Bank | 274 | 18.77% |
| Insurance Agent | 192 | 13.15% |
| FOREX | 148 | 10.14% |
| MFI | 75 | 5.14% |
| Microfinance Bank | 42 | 2.88% |
| Cooperative Bank | 14 | 0.96% |

¹ [Rwanda Institution Breakdown](#) (FSD Africa, 2015)

FINANCIAL SYSTEM OVERVIEW – ADDITIONAL PLAYERS

SWITCHING, CLEARING & SETTLEMENT

- The BNR has licensed two switches to operate in Rwanda – Rswitch Ltd and VISA Rwanda Ltd.
 - RSwitch (established in 2003, formerly known as SIMTEL) is the national e-payment switch of Rwanda – a domestic network brand which enables electronic payment settlements.
 - RSwitch currently connects ATMs of 8 banks – Access Bank, BPR, BRD, Cogebanque, I&Mbank, GT Bank, UOB, Zigama CSS – where customers may use either SmartCash or UPI cards.
 - RSwitch is the driver of the SmartCash® brand enabling electronic payment settlements, interoperability and other financial solutions in Rwanda.^{1,2}
 - SmartCash is RSwitch's local scheme of debit cards currently issued by banks in Rwanda, and will soon also be available for customers of MFIs and SACCOs, using a shared platform provided by the Ministry of Finance and managed by RSwitch. With the SmartCash card, customers are able to make transactions on all ATMs, POSs and online.

¹ RSwitch [website](#), accessed October 14, 2016. ² [Simtel in \\$13.5 million re-branding drive](#) (NewTimes, November 2010)

³ [VISA Press Release](#), access October 16, 2016.

FINANCIAL SYSTEM OVERVIEW – ADDITIONAL PLAYERS

SWITCHING, CLEARING & SETTLEMENT

- The BNR has licensed two switches to operate in Rwanda – Rswitch Ltd and VISA Rwanda Ltd.
 - Visa Rwanda Ltd operates VisaNet – a global settlement platform offered by VISA and which facilitates settlement of digital transactions.³
 - VisaNet allows relevant transactions to be settled in Rwanda – synchronized to the local Rwandan calendar and work schedule and eliminating any potential foreign currency exchange rates loss - a local solution for the benefit of Rwandan consumers and the Rwandan economy. Transactions were previously settled outside of Rwanda, on the VISA network, and in USD.
 - Visa also launched mVisa – a local mobile phone service to overcome the challenge of lack of physical access to bank branches and which works across different financial institutions and mobile phone networks.

¹ RSwitch [website](#), accessed October 14, 2016.

² [Simtel in \\$13.5 million re-branding drive](#) (NewTimes, November 2010)

³ [VISA Press Release](#), access October 16, 2016.

FINANCIAL SYSTEM OVERVIEW – ADDITIONAL PLAYERS

SWITCHING, CLEARING & SETTLEMENT

- Rwanda Integrated Payments Processing System (RIPPS) – an Integrated Payments Processing System, comprising an Automated Transfer System (ATS) and a Central Security Depository (CSD) – was established in 2011.¹
 - The ATS is a hybrid system providing integrated facilities for clearing and settlement of all interbank electronic payments, irrespective of their value or level of urgency. It comprises two main capabilities, namely:
 - The Real-Time Gross Settlement (RTGS) functions for large value and time critical payments.
 - The Automated Clearing House (ACH) function, which provides clearing and netting facilities for a range of low value (retail) electronic instruments including direct debits, direct credits and cheques.
 - The Central Securities Depository (CSD) component accommodates all securities (both equities and debt) issued in Rwanda in a book entry form. The CSD includes also an integrated primary trading (auction) module and an application (tightly linked with the RTGS function of the ATS) for the settlement of securities transactions, following the principle of Delivery versus Payment (DvP).
- RIPPS is also linked to the East African Payment System (EAPS) and Regional Payment and Settlement System (REPSS) to facilitate cross border payments within the East African Community and the Common Market of Eastern and Southern Africa (COMESA) regions, respectively.

¹ National Bank of Rwanda [website](#), accessed October 14, 2016.

FINANCIAL SYSTEM OVERVIEW – ADDITIONAL PLAYERS

CREDIT BUREAUS

- Role of the BNR:¹
 - The BNR collects credit information from financial institutions, ensures the accuracy and reliability of the information and holds it in public credit registry database, for supervisory and statistical purposes.
 - In addition, it supervises the private credit reference bureau licensed by the National Bank of Rwanda as per the law governing Credit Information System in Rwanda, whereby all financial institutions are mandatory participants.
- Rwanda has both credit bureaus and credit registries operating in the country. Coverage for credit bureau is 1.2 million individuals (18.8% of the adult population) and 35,690 firms and credit bureaus collect data from a broad range of sources (retailers, utility companies as well as banks and financial institutions), for a wide range of amounts including those below 1% of per capita income, show both positive and negative data for at least 2 years. In addition, these data are available to the individual/firm being scored, as well as to banks and FIs as value added service to help them assess borrower credit worthiness.²
- Credit Bureaus operating in Rwanda include:
 - TransUnion Rwanda (after taking over Rwandan operations of CRB Africa in 2015).³

¹ National Bank of Rwanda [website](#), accessed October 16, 2016.

² Data as at 2015. Source: World Bank Doing Business Report, [Getting Credit indicator](#)

³ [Rwanda: Credit Reference Bureau taken over by TransUnion](#) (AllAfrica, May 13, 2015)

FINANCIAL SYSTEM OVERVIEW – ADDITIONAL PLAYERS

Rwanda Stock Exchange (RSE) <http://www.rse.rw/site/pages/background/4>

- The Rwanda Stock Exchange Limited was incorporated on 7th October 2005 and officially launched on 31st January 2011.
- Demutualized from the start, the RSE is owned by the Government of Rwanda (20%), CDH Capital Ltd (10%), Faida Securities Rwanda (10%), Baraka Capital (10%), Rwanda Social Security Board (RSSB) (10%), Dyer and Blair Rwanda (10%), MBEA Brokerage and Financial Services Rwanda (10%), African Alliance Rwanda (10%), BRD (8%), SORAS (1%) and SONARWA (1%).
- The Capital Market Authority (CMA) was established by Law N11/2011 of 18/05/2011 Establishing the Capital Market Authority (CMA) and Determining its mission, powers, organization and functioning.
- There are 7 companies, including 3 Banks (Bank of Kigali, Kenya Commercial Bank (KCB), Equity Bank Group Ltd) and 1 Telecom (Crystal Telecom), and 13 bonds (11 of the Government of Rwanda and 2 corporates) listed on the RSE,
- Trading on the RSE takes place via open outcry during formal trading hours (9 am – 12 pm) on the trading floor and members trade through an Over the Counter (OTC) market where members are allowed to buy or sell directly to clients in their offices, as well as over the phone. All OTC transactions should be reported to the RSE within 1 hour after the transaction and on the next trading session for the purposes of settlement.
- Market cap was 2,147,483,647.00 in July 2016.

NON COLLATERAL BASED MICRO LENDING

JUMO

- JUMO is a platform that provides transaction and predictive technology for Mobile Network Operators and Banks
- provides loans to consumers and small businesses without any savings or collateral being required.
- JUMO has partnered with Tigo to provide Tigo Cash customers with access to lending products made available through their mobile phones.

BANKING SECTOR

Amounts are in RWF '000 unless otherwise stated
Exchange rate: 807.272 RWF to USD 1.00

Bank of Kigali (BK)¹

Total assets: 561.2 million
Total liabilities: 561.2 million

- Branches: 78
- ATMs: 89
- POSs: 941
- Agents: 1,178

- Government of Rwanda (29.5%), Rwanda Social Security Board (25.1%), Institutional Investors (International 14%, Regional 7.7%, Local 8.9%), Retail Investors (13.7%), Employees (1%).

Kenya Commercial Bank (KCB)²

Total assets: 144,902,602
Total liabilities: 130,539,431

- Branches: 11
- Agents:⁶ 300

- Shareholders include Government of Kenya (17%), National Social Security Fund Kenya (8%), Templeton Asset Management Ltd Hong Kong (3.39%), among others.

Banque Populaire du Rwanda (BPR)³

Total assets: 165,394,300
Total liabilities: 165,394,300

- Branches: 191
- ATMs: 103

- Shareholders include Atlas Mara Mauritius Limited (62.1%), Rabobank (14.6%) and Local Shareholders own the rest (23.3%).

Equity Bank⁴

Total assets: 65,093,309^{4a}
Total liabilities: 2,669,665^{4a}

- At the Group level, shareholders include: Norfininvest AS, British-American Investments Company Kenya Limited, The National Social Security Fund (Uganda).^{4b}

Access Bank (AB) Rwanda⁵

Total assets: 8,350,160
Total liabilities: 6,056,637

- Branches: 5

- Access Holding Microfinance AG (50.5%), IFC (16.5%), KFW Bankengruppe (16.5%), FMO (16.5%)

Note: A selection of banks. Full list of banks operating in Rwanda available on NBR [website](#).

¹ Data as of December 2015. Source: [Bank of Kigali Annual Report 2015](#).

² Data as of June 30 2016. Source: KCB [Financial Statements](#) and [website](#), unless otherwise indicated.

³ Data as of September 2015. Source: [Financial Statements for the 9 months ended Sep 2015](#) and BPR [website](#).

⁴ Source: Equity Bank website is non-functional. ^{4a} Equity Bank Group data (September 30, 2016, Shs, '000). ^{4b} Equity Bank Group [website](#).

⁵ Data as of September 30, 2016. Source: [Q3 Financial Statements](#) and AB Rwanda website.

BANK OF KIGALI (BK)¹

- Bank of Kigali (BK) is the largest commercial bank in terms of assets in Rwanda.
- Agents, are completely managed in-house, are not permitted to open accounts for customers (this must be done at a branch), and manage liquidity through branches or mobile banks
- In terms of liquidity management for agents, they can go to BK bank branches or alternatively, Bk has 9 mobile banks which are vans with cash which move around.
- Bank of Kigali Digital Financial Services (DFS) activity includes:
 - Partnered with mastercard and Government of Rwanda to facilitate eGovernment payments using irembo platform²
 - Launched Airtel Money at all branches and offers its own mobile Banking service (MobiServe, which allows customers to send money to any mobile phone user, pay bills, purchase pre-paid TV, electricity, airtime top up and which has reached 303,245 users as of June 2016)
 - Currently has 200,000 Visa debit and credit cards in circulation, is a card acquirer for China Union Pay and Diners Club, ATM acquirer for AMEX and working on issuing MasterCard contactless cards, loyalty cards and corporate credit cards
 - Partnered with TIGO to facilitate transfers between BK bank account and Tigo Cash.

¹ Bank of Kigali [website](#), unless otherwise indicated.

² [MasterCard, Bank of Kigali and Rwanda Online in effort to advance e-Commerce](#) (New Times, September 28, 2016)

³ Source: Stakeholder Meetings (IFC, October 2016).

KENYA COMMERCIAL BANK (KCB)¹

- Kenya Commercial Bank (KCB) started its operations in Zanzibar in 1896 as a branch of National Bank of India. The Government of Kenya acquired a majority shareholding in 1970 and changed the name to Kenya Commercial Bank. KCB went public – listed on the NSE in 1988 – and the Government sold 20% of its shares.
- Today, KCB Bank group has grown to become Eastern Africa's oldest and largest commercial bank with an asset base of KES 607 billion (+USD 5.9B), a market capitalization of KES 142 billion (+USD 1.3B) and broad regional distribution in 6 Eastern Africa countries (over 269 branches, 11489 agents and 962 ATMs).
- KCB first established a presence in Rwanda in 2008, and currently has 11 branches, 3 cash centers, 300 agents, a network of ATMs. They also offer a number of digital channels, such as internet and mobile (KCB Connect) banking, though these are only available to existing customers
 - Agents (KCB Iwacu) are not exclusive, and receive commissions for generating deposits.
 - At ATMs, customers can withdraw up to RWF 400,000 in local or foreign currency per day, change their pin, deposit cheques and cash, check balances and get a mini statement. KCB has 940 ATMs in the region.
- Going forward, KCB will focus heavily on mobile banking with the goal of facilitating most consumer activity – account opening, savings, payments – via the phone
- KCB offers both debit (KCB Quickserve Debit Card, which can be used at 5,000 establishments nationwide and anywhere with the VISA logo) and credit (KCB VISA Gold Card) cards.
- POSs are only card-based at present and volume of commerce on cards is limited (less than 5%). Similarly, mobile money is not used on a grand scale for commerce as merchants can only accept mobile money on his/her personal wallet

¹ KCB [website](#), unless otherwise indicated.

² Source: Stakeholder Meetings (IFC, October 2016).

BANQUE POPULAIRE DU RWANDA (BPR)¹

- BPR The first Bank Populaire was started in 1975 as a savings and credit scheme among the people of Nkamba, a village in the current Eastern province felt the need to have, to help them grow financially and achieve better livelihoods. In the years to come, several community-based savings and credit schemes that were established in other areas of Rwanda as autonomous "Banques populaires." In 1986, they merged under the name "Union des Banques Populaires du Rwanda (UBPR), with its headquarters in Kigali.
- While retaining its cooperative roots, BPR became a commercial bank in 2008 and today, BPR has characteristics of both a Micro Finance Institution and a commercial bank, with a large part of its lending portfolio that can be considered as microfinance, and also serving salaried customers and micro businesses, with a focus the food and agriculture sectors.
- Today, BPR is a community-based commercial bank with a countrywide network of 191 branches (the largest in the country), 103 ATMs, 1600 staff, and 400,000 active clients, including 250,000 cardholders and 240,000 mobile banking subscribers
- BPR Digital Financial Services (DFS) activity includes
 - Recently launched mobile banking app to facilitate service delivery
 - state-of-the-art Internet banking platform

¹ BPR [website](#), unless otherwise indicated.

² Source: Stakeholder Meetings (IFC, October 2016).

EQUITY BANK¹

- Equity Bank Rwanda – a subsidiary of the Kenyan-based financial Equity Bank Group with operations in Kenya, Uganda, South Sudan, Tanzania and DRC – was established in 2011.
- The range of products that are available includes call deposit accounts, fixed deposit accounts, current accounts, accounts for social institutions, consumer loans, micro business loans, and trade finance. It also offers foreign exchange products.¹
- Equity Bank – the second largest consumer bank– has been in Rwanda for 5 years and now have a 12 branches and 1,400 agents.

¹ Equity Bank website is non-functional, so basic data taken from Deposits.org, accessed January 30, 2017 <https://rwanda.deposits.org/about/equity-bank-rwanda/>, unless otherwise indicated.

² Source: Stakeholder Meetings (IFC, October 2016).

ACCESS BANK RWANDA¹

- AB Rwanda is a foreign-owned financial institution, newly based in Kigali, and with operations in Nigeria, Madagascar, Tanzania, Liberia, Zambia. AB Bank Rwanda offers a broad range of financial services to micro, small and medium-sized enterprises (MSMEs) and other clients in the lower income strata.
- AB currently has 200 staff, across 5 branches (1 of which is outside of Kigali)

¹ AB Rwanda [website](#), unless otherwise indicated.

² Source: Stakeholder Meetings (IFC, October 2016).

CURRENT CHALLENGES TO THE BANKING SECTOR

- Rwanda has made remarkable progress in terms of economic development with growth averaging at 7% since the mid-2000s. In terms of financial inclusion, access has increased since 2008. Looking at the Finscope Surveys from 2012 and 2016, we see a significant growth in financial inclusion. While the banked population has grown from 23% to 26%, those accessing financial services from other formal but non-bank sources has increased from 33% to 65%. The increase in financial inclusion has come from increased uptake of mobile money and a continued increase in take up of savings groups.
- Thus, although access has increased, banks have played a very small role in this. Most banks are now working towards developing or improving their digital financial services offering.
- The financial sector faces several important challenges which prevent scale up of agency banking:
 - Low savings: In 2015, IMF data showed that the rate of savings in Rwanda is at 6.8% of GDP. This is also below what other countries in East Africa are saving. There are many reasons for the low savings including: low levels of awareness, poorly designed savings products, low incomes, and poor savings culture.
 - Lack of awareness/ Financial Literacy: Banks and other financial sector players point out that one of the major reasons causing the low adoption of financial products and services is the low levels of awareness amongst target customer segments about financial services and banking through agents.
 - Skills gap in the financial sector: There is a skills gap in Rwanda related to technical areas in the financial sector including risk management, accounting, and other areas necessary for the financial sector. Additionally, digital financial services is a new area and there is lack of skill in financial institutions to adequately staff and develop this new product area.

Source:

http://www.minecofin.gov.rw/fileadmin/templates/documents/sector_strategic_plan/Financial_Sector_Strategic_Plan_June2013.pdf

Finscope Access to Finance (Rwanda) 2016

<https://www.mfw4a.org/rwanda/financial-sector-profile.html>

MICROFINANCE SECTOR

Amounts are in RWF '000 unless otherwise stated
Exchange rate: 807.272 RWF to USD 1.00

Abamuhoza SACCO¹

- A Credit Union established in March 2012.

Total Deposits: USD
180,000 (2014)
Gross Loan Portfolio: USD
40,000 (2014)

Active borrowers: 60
(2014)
Locations: 1 (2014)

- Portfolio at Risk > 30 days:
6.27% (2014)

Amirera SACCO Gisakura²

- Unavailable

Total assets: USD 130,000
Gross Loan Portfolio: USD
60,000 (2014)

Client base: 250 (2014)
Locations: 1 (2014)

- Portfolio at Risk > 30 days:
7.45% (2014)

CLECAM Ejoheza Kamonyi³

- Unavailable

Total Assets: USD
920,000 (2014)
Gross Loan Portfolio: USD
630,000 (2014)

Active borrowers: 1,090
(2014)
Locations: 1 (2014)

- Portfolio at Risk > 30 days:
2.24% (2014)

CLECAM Biruyi⁴

- Unavailable

Total Deposits: USD
140,000 (2014)
Gross Loan Portfolio:
110,000 (2014)

Client base: 340 (2014)
Locations: 1 (2014)

- Portfolio at Risk > 30 days:
6.49% (2014)

¹ [MixMarket Country Profile for Rwanda](#), accessed January 30, 2017, unless otherwise indicated. All data as at 2014, unless otherwise indicated.

Notes:
Full list of MFIs operating in Rwanda available on BRN [website](#).

DIGITAL FINANCIAL SERVICES - INFRASTRUCTURE

| DFS Network ¹ | 2011 | 2012 | 2013 | 2014 | 2015 | Y/Y Δ ² |
|---------------------------|---------|---------|---------|---------|---------|---------------------------|
| Number of ATMs | 167 | 292 | 333 | 354 | 380 | 7.3% |
| Number of POSs | 227 | 666 | 946 | 1,152 | 1,718 | 49.1% |
| Number of POSs for Agents | - | - | 491 | 1,009 | 1,422 | 40.9% |
| Number of Debit Cards | 115,200 | 389,269 | 487,498 | 638,869 | 657,904 | 3.0% |
| Number of Credit Cards | 516 | 418 | 845 | 2,540 | 3,485 | 37.2% |

¹ Data as at date indicated. Source: National Bank of Rwanda (BNR) [Payment Systems Statistics](#)

² Author's calculations based on data from National Bank of Rwanda (BNR) [Payment Systems Statistics](#)

DIGITAL FINANCIAL SERVICES - USAGE

| DFS Usage ¹ | 2011 | 2012 | 2013 | 2014 | 2015 | Y/Y Δ ² |
|---------------------------------------|---------|-----------|-----------|-----------|-----------|--------------------|
| Internet Banking Subscriptions | - | 3,411 | 8,969 | 29,840 | 36,597 | 22.6% |
| Internet Banking Transactions | 1,493 | 10,036 | 89,260 | 312,264 | 556,152 | 78.1% |
| Internet Banking Value (FRW, million) | 708 | 12,746 | 117,147 | 332,959 | 581,163 | 74.5% |
| Mobile Banking Subscriptions | 155,986 | 297,537 | 412,007 | 659,712 | 828,799 | 25.6% |
| Mobile Banking Transactions | 527,300 | 1,458,063 | 2,538,820 | 4,637,849 | 5,617,368 | 21.2% |
| Mobile Banking Value (FRW, million) | 5,215 | 3,926 | 17,459 | 41,281 | 48,309 | 17.0% |

¹ Data as at date indicated. Source: National Bank of Rwanda (BNR) [Payment Systems Statistics](#)

² Author's calculations based on data from National Bank of Rwanda (BNR) [Payment Systems Statistics](#)

DIGITAL FINANCIAL SERVICES - USAGE

| DFS Usage ¹ | 2011 | 2012 | 2013 | 2014 | 2015 | Y/Y Δ ² |
|---|------------|-----------|-----------|-----------|-----------|--------------------|
| ATM Transactions Value (FRW, million) | 122,536 | 180,567 | 260,585 | 310,009 | 354,049 | 14.2% |
| ATM Transactions Volume | 1, 976,376 | 5,753,163 | 7,774,053 | 7,488,707 | 7,505,815 | 0.22% |
| POS Transactions (Merchants) Value FRW, million | 6,438 | 9,034 | 14,718 | 19,223 | 26,625 | 38.5% |
| POS Transactions (Merchants) Volume | 38,440 | 63,757 | 111,570 | 185,441 | 373,029 | 101.2% |
| POS Transactions (Agents) Value (FRW, million) | - | 658 | 11,235 | 13,069 | 21,963 | 68.1% |
| POS Transactions (Agents) Volume | - | 22,425 | 298,835 | 482,945 | 827,130 | 71.3% |

¹ Data as at date indicated. Source: National Bank of Rwanda (BNR) [Payment Systems Statistics](#)

² Author's calculations based on data from National Bank of Rwanda (BNR) [Payment Systems Statistics](#)

PAYMENT SERVICE PROVIDERS – ATMs, POSs & OTHERS

DIRECT PAY ONLINE¹

- Provides a real time, cloud based processing platform, with state of the art technology that supports multiple transaction types with online and offline capabilities.
- The technology supports all modes of payments, all cards, mobile money, all currencies, mobile apps & card readers.
- Established in 2006, Direct Pay Online is partnered with Equity Bank in Rwanda and provides payment services across a number of industries (travel, hospitality, airlines, internet service providers) and facilitates payments for both locals and visitors using credit cards (VISA, MasterCard, and AMEX), mobile money (Tigo, Airtel, MTN, and PayPal) and bank transfers in real time.

¹ Direct Pay Online [website](#), accessed October 18, 2016)

GOVERNMENT PAYMENTS – IN AND OUT

PAYMENTS TO THE GOVERNMENT OF RWANDA

- Irembo – the one-stop portal for e-Government services – was developed through a Public Private Partnership between RwandaOnline Platform Limited (ROPL) and the Rwandan Government and allows citizens to perform (and pay for) a number of Government services online, including¹
 - Immigration and Emigration – visas to enter Rwanda (single entry, transit, conference attendance, visa on arrival) or or the East Africa region (East Africa Tourist visa, valid for Kenya, Rwanda and Uganda)
 - Land – land subdivision, transfer of land title
 - Local Government – birth/marriage/death record or certificate, certificate of being single, certificate of full identity, billboards, banners and signposts
 - National ID – child registration, application for new or replacement National ID, registration of children or citizens above 16 years
 - Police – application/upgrade/renewal/ duplication of provisional or full driving license, registration for driving test
 - Prosecution – criminal record clearance certificate
- Through Irembo, it is possible to pay using a number of DFS options, including mobile money (MTN Money), cards (MasterCard)

OTHER NEWS

- In May 2016, the Government of Rwanda signed a Memorandum of Understanding (MoU) with MasterCard to meet Rwanda's 2020 Vision of a Cashless society and will collaborate on a number of key initiatives, including:²
 - Digitization of important payment streams, including school fees, national healthcare claim payments
 - Providing an online gateway for Rwanda Online
 - Contributing to the creation of a common mobile banking platform

¹ Source: [irembo](#) (Rwandan Government Portal) accessed October 16, 2016.

² [MasterCard Press Release](#) (MasterCard, May 2016)

FINANCIAL FLOWS - INTERNATIONAL REMITTANCES

MIGRATION AND REMITTANCES

- Rwandan migrants – numbering approximately 279,920 – live primarily in other African countries, including DRC (46%), Uganda (25%), Burundi (20%), and Congo (7%). Another 2% live in France.¹
- Similarly, immigrants in Rwanda come mostly from other African countries, such as DRC (45%), Uganda (27%), Burundi (16%), Tanzania (12%) and Kenya (<1%).¹
- Rwanda is a net recipient of remittances by a very small margin, as outflows (US\$126 million) and inflows (US\$128 million) are almost equal.²
- Remittance inflows are approximately equal to 1.6% of GDP.²
- The average total cost of sending \$200 to Rwanda is roughly 13% of the amount sent; that's almost double the Global Average (7.60%) and 30% higher than the average for the whole Sub-Saharan Africa region (9.58%).³

Sources of Remittance Inflows
US\$128 million

¹ Data as at 2013. Source: Migration Profiles (United Nations, DESA-Population Division and UNICEF).

² Data as at 2014 for outflows and 2015 for inflows. Source: World Bank Remittance Inflows by Country, updated April 2016.

³ Data as at June 2016. Source: [World Bank Remittance Prices Worldwide](#).

⁴ Data as at 2015. Source: World Bank Bilateral Remittance Matrix, 2016

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TELECOMMUNICATIONS SECTOR IN RWANDA

Key Statistics

- 4 MNOs operating in the market -> MTN, Tigo, Airtel and KT Rwanda Networks (very new and relatively small)¹
- Mobile subscriptions 9 million²
- Mobile connections: 8.8 million (99% prepaid)¹
- SIM penetration 75%¹
- Mobile penetration 80%²
- Market coverage (Percentage of population) ¹
 - 3G: 90%
 - 4G: 19%
- No single dominant player, but the 3 largest players account for >85% of the market¹
- % of HHs who own:⁴
 - A mobile phone 45%
 - A computer 1.7%

- The telecommunications sector in Rwanda is regulated by the Rwanda Utility Regulatory Authority (RURA).
- RURA was initially created in 2001 with the mission to regulate certain public Utilities, namely: telecommunications, electricity, water, sanitation, energy and transport of goods and persons.
- RURA's mandate within the ICT sector is to license, monitor and enforce license obligations, manage scarce resources, advise policy makers on ICT related issues and represent Rwanda in international organizations on issues pertaining to ICT.
- The Government of Rwanda (GoR) has prioritized Universal Access (UA) in the ICT sector as per the Presidential Order No 05/01 of 13/03/2004 and set up an accompanying funding source – the Universal Access Fund (UAF) to facilitate its ambitious goals.³
- The Government of Rwanda has Entered into a PPP with kt – kt Rwanda Networks – and charged the entity with a mandate to deliver universal broadband access (4G LTE technology), using Rwanda's national Fiber optic infrastructure, and manage the fixed-mobile converged infrastructure as the wholesale provider of high-speed mobile broadband, covering 95% of the population within 4 years.⁵

¹ Data as at Q4 2015. Source: GSMA Intelligence.

² Data as at July 2016. Source: RURA ICT Statistics – [Active Mobile Telephone Subscriptions as of July 2016](#)

³ Rwanda Utilities Regulatory Authority (RURA) [website](#), accessed October 14, 2016.

⁴ [Integrated Household Living Conditions Survey 2013-2014](#) National Institute of Statistics Rwanda (NISR), 2014)

⁵ kt Rwanda Networks [website](#), accessed October 16, 2016.

POINTS OF INTEREST IN THE MOBILE MARKET

- 2015 was characterized by intense competition among MNOs in Rwanda – as indicated by the introduction of call packs for off-network calls, first by Airtel, then Tigo and finally MTN.¹
- At the same time, per minute charges for both on- and off-network calls increased, despite a decline in interconnection tariffs.¹
- Taxes as a proportion of total cost of mobile ownership (TCMO) in Rwanda is 25%, putting Rwanda 8th on the list of countries where taxes as share of TCMO are highest in the world and significantly higher than the regional (20%) and global (17%) averages.²
- Commercial 4G networks were launched in Rwanda for the first time in 2015.² The government-backed single wholesale network (SWN) in Rwanda – the first of its kind in the world, which at launch had 65 cell sites in Kigali, covering 95% of the city’s population – is expected to drive growth of 4G connections.²
- Rwanda has Lower levels of mobile phone ownership and technical literacy than its neighbors;³
 - Only 47% own a mobile phone, compared to 91% for Ghana, 74% for Kenya, 72% for Tanzania, and 58% for Uganda
 - Only 37% have ever sent/received a text message, compared to 74% for Ghana, 69% for Kenya, 61% for Tanzania and 49% for Uganda
- Mobile phone ownership and access is lower in rural areas (42% own, 21% have access vs 74% and 11% for urban areas), among women (37% own, 24% have access, vs 58% and 15% for men) and for those living below the poverty line (43% own, 21% have access, vs 84% and 8% for those living above the poverty line, respectively).³

¹ [Rwanda: Telecoms – 2015 a year of innovation, tight competition and uncertainty](#) (allAfrica, December 29, 2015)

² [The Mobile Economy Sub-Saharan Africa 2015](#) (GSMA, 2015)

³ Financial Inclusion Insights – National Survey Report Rwanda (CGAP, 2015)

MOBILE NETWORK OPERATORS



Source¹

- 4.0 million subscribers²
- 13% smart phones
- 34% market share
- 3G penetration 90%
- 4G penetration 19%

Ownership:

- 80% owned by MTN Group Limited – the largest African mobile telecommunications company with operations in 22 countries including Africa and the Middle East – and 20% owned by [Crystal Telecom](#) – established and incorporated in 2013 for the sole purpose of holding and managing the stake in MTN, listed on Rwanda Stock Exchange.

- Began operations in Rwanda in 1998 and launched 4G LTE services on mobile phones in October 2016.⁴
- Launched Fonepass (December 2015) in partnership with U2opia Mobile - a sponsored data service targeted at users with limited or no Internet access, which allows access to Wikipedia, TripAdvisor etc with no data charges.
- MTN Group Ltd. appointed Felling Sekha to the newly created position of head of regulatory affairs, part of a management shakeup at the wireless carrier following a record \$1 billion fine in Nigeria.⁵



Source¹

- 3.2 million subscribers²
- 4% smart phones
- 31% market share
- 3G penetration 60%
- 4G penetration 19%

Ownership:

- A subsidiary of Millicom, a mobile telecom and media company which also recently purchased a significant share (28%) of Helios Towers Africa (HTA) in October 2015.
- Millicom was founded in 1990, employs 23,000 people, is headquartered in Luxembourg and listed on NASDAQ OMX Stockholm under the symbol MIC.

- Millicom launched the Millicom Foundation in 2014 to support digital innovators in Africa and Latin America with a US\$10 million budget and mentoring program. Tigo launched a similar initiative in Rwanda.³
- The first MNO to launch 4G LTE for its customers in October 2015.⁴
- Offers Mobile Money Transfer Service with currency conversion between Tigo Rwanda and Tigo Tanzania.
- "Tigo-Matic" machines in Rwanda (2013) allow customers to deposit money, purchase airtime and receive money safely and efficiently 24 hours a day.

¹ Data as at Q3 2016, except smart phone coverage (Q3 2015). Source: GSMA Intelligence. 3G/4G Network penetration refers to share of population reached by network.

² Data as at July 2016. Source: Rwanda Utility Regulatory Authority (RURA) [Active Mobile Telephone Subscriptions](#)

³ [The Mobile Economy Sub-Saharan Africa 2015](#) (GSMA, 2015)

⁴ [MTN Rwanda Launches 4G LTE on mobile devices](#) (New Times, March 1, 2016)

⁵ [MTN said to create Regulatory Head position after record fine](#) (Bloomberg, October 10, 2016)

MOBILE NETWORK OPERATORS



Source¹

- 1.8 million subscribers
- 12% smart phones
- 20% market share
- 3G penetration 28%
- 4G penetration 19%

Ownership:

- A subsidiary of Bharti Airtel Limited – a leading global telecommunications headquartered in New Delhi, India company with operations in 20 countries across Asia and Africa, which ranks amongst the top 3 mobile service providers globally in terms of subscribers.
- Airtel Rwanda was still loss making at the end of 2015²

- Airtel launched services in Rwanda on 30 March 2012 and launched 4G services in 2015.
- Airtel Rwanda entered a sale and leaseback agreement with HIS – Africa’s leading independent mobile telecommunications infrastructure provider – for 210 towers in Rwanda in an effort to deleverage, reduce operating expenses and increase network uptime for customers.
- Airtel’s One Network – available in at least 15 countries – allows Airtel customers to use the service in other countries at the same price as their home network and receive free incoming calls.



Source¹

- 543,572 connections
- 6% market share
- 4G penetration 19%

Ownership:

- A Public Private Partnership between the Government of Rwanda and kt, established exclusively for wholesale provision of universal mobile broadband network in Rwanda using 4G LTE technology³

- The only 4G LTE infrastructure company in Rwanda
- Kt Rwanda provides the following services offered within the Fixed Network include;
 - Domestic Shared Capacity Service based on nationwide Fiber optic network (local transport to Mobile Network Operators (MNOs) or Internet Service Providers (ISPs) to allow them serve their end users)
 - Dedicated Transport Service (SDH: STM-1, STM-4, STM-16, STM-64)
 - Virtual Private Network (VPN)

¹ Unless otherwise indicated, data as at Q3 2016. Source: GSMA Intelligence.

² Airtel Rwanda Limited Annual Report and Financial Statements for the year ended December 31, 2015.

³ kt Rwanda Networks [website](#), accessed October 16, 2016.

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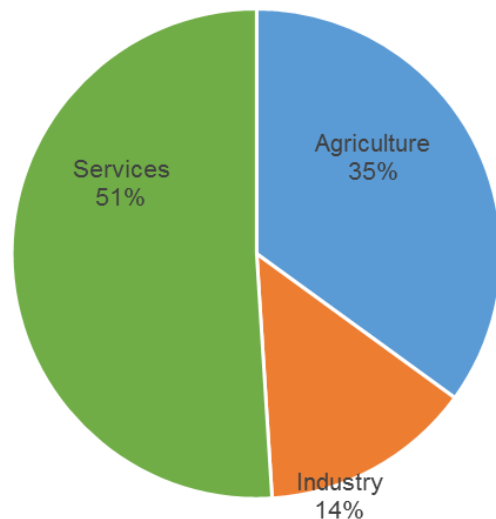
Digital Financial Services Landscape

RWANDA GDP

GDP and GDP Per Capita¹

| Indicator Name | 2011 | 2012 | 2013 | 2014 | 2015 |
|---------------------------------------|------------------|------------------|------------------|------------------|------------------|
| GDP (PPP, current Intl \$) | \$14,749,703,250 | \$16,341,533,848 | \$17,385,916,111 | \$18,910,126,561 | \$20,418,305,189 |
| GDP growth (annual %) | 7.9% | 8.8% | 4.7% | 7.0% | 6.9% |
| GDP per capita (PPP, current Intl \$) | \$1,397 | \$1,511 | \$1,569 | \$1,667 | \$1,759 |
| GDP per capita growth (annual %) | 5.17% | 6.16% | 2.22% | 4.52% | 4.44% |

Rwanda GDP by Sector (2016)²



Noteworthy Details³

- Rwanda is a rural, landlocked country with about 90% of the population engaged in subsistence agriculture (though not enough to keep pace with demand, requiring imports) and some mineral and agro-processing.
- Tourism, minerals, coffee and tea are Rwanda's main sources of foreign exchange.
- Major trading partners include:
 - Imports: Uganda(16%), Kenya(12%), China(9%), UAE (9%)
 - Exports: DRC(20%), USA(11%), China(10%), Switzerland(8%)
- Key industries include: cement, agricultural products, small-scale beverages, soap, furniture, shoes, plastic goods, textiles, cigarettes
- Agricultural products include: coffee, tea, pyrethrum (insecticide made from chrysanthemums), bananas, beans, sorghum, potatoes; livestock

¹ World Development Indicators (World Bank, 2016). Accessed on September 26, 2016

<http://data.worldbank.org/data-catalog/world-development-indicators>

² Data as at Q2 2016. Source: National Institute of Statistics of Rwanda (NISR) [GDP National Accounts Q2 2016](#)

³ Data as at 2015. Source: [CIA World Fact Book](#)

VALUE CHAIN DIGITIZATION – APPLICATIONS OF DFS

AGRICULTURE

▪ TIGO CASH¹

- First ever digital solution for tea farmers (launched July 2016) meant to facilitate easy access to their payments in Tigo Cash accounts
- Benefits include:
 - Reduction in time between selling their products and payment from 15-20 days to 2-3 days
 - Elimination of the need to travel long distances to get paid (thereby allowing farmers to spend that time on other productive activities)
- Tea farmer's value chain product is the result of a partnership among various savings and credit cooperatives (SACCOs), Access to Finance Rwanda and Wood Foundation
- This product will benefit 10,000 tea farmers working with tea factories owned by Woods Foundation
- VISA and the Clinton Development Initiative (CDI) are collaborating on a similar project.²

▪ KONZI Y'IKIBINA (SAVINGS GROUP ACCOUNT)³

- A staged product offered by Urwego Opportunity Bank that digitizes savings group transactions using a mobile platform and allows groups to access instant loans secured by group savings. As the platform builds credit history on individual members, the eventually receive the option to apply for individual loans using their mobile phones.
- The model of using savings group – highly trusted and almost universally used by smallholders – helped overcome the barrier of trust on the part of smallholders and eased the transition of being introduced to a new range of formal financial services.
- Further, the model created the role of “farmer leaders” – who would assist in setting up accounts for new members – for those who had successfully completed layaway programs.
- Key features include; Mobilizes deposits, Familiarizes group members with DFS, Builds credit histories and long-term customer relationships with the potential to offer new products, Enhances savings group capacity, Provides instant access to credit in times or urgent need

¹ [Rwanda: Tigo Rwanda Launches the first ever digital payment solution for tea farmers](#) (allAfrica, July 13, 2016)

² Press Release: [CDI and VISA announce partnership to link farmers in Rwanda to Digital Payments](#) (Clinton Foundation, December 15, 2015)

³ Designing DFS for Smallholder Families: Lessons from Zimbabwe, Senegal, Rwanda and Cambodia (CGAP, 2015)

VALUE CHAIN DIGITIZATION – APPLICATIONS OF DFS

ENERGY

▪ MOBISOL¹

- Supplier of affordable, high quality Solar Home Systems (SHS) with a rent-to-own payment scheme – starting as low as 399rwf per day
- Since its creation in 2010, Mobisol has installed over 50,000 solar home systems on households in Tanzania and Rwanda in order to tackle the challenge of energy poverty. Clients currently pay off the monthly instalments using their mobile phones (MTN Money).
- Benefits for customers include
 - Opportunity to earn extra income charging phones for neighbors,
 - Elimination of the need to travel to purchase power/pay electricity bills

INSURANCE

▪ COMMUNITY BASED HEALTH INSURANCE (CBHI) – OPPORTUNITY FOR DIGITIZATION²

- The Community-Based Health Insurance (CBHI)
 - state-community partnerships, which provide health insurance coverage to populations employed in the rural and informal sectors (i.e., the majority of the poor) in Rwanda.
 - has helped develop a new national distribution modality through which the state, districts, donors and non-government organizations provide health insurance coverage to the poorest and most vulnerable groups.
- Rwanda is also a leader in East Africa in insurance, with nearly 85% of the population having some form of insurance, mostly medical, compared to 65% for Ghana, 22% for Kenya, 12% for Tanzania and just 3% in Uganda.
- Medical insurance has successfully penetrated various demographic groups, including women, rural populations, and those living below the poverty line.
- While 71% of Rwandans pay for some kind of insurance, only 0.5% of them are using digital channels to do so (bank account or mobile money).

¹ Mobisol Rwanda [website](#), accessed October 16, 2016.

² Financial Inclusion Insights – National Survey Report Rwanda (CGAP, 2015).

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MOBILE MONEY IN RWANDA - OVERVIEW

| Key Statistics ¹ | 2011 | 2012 | 2013 | 2014 | 2015 | Y/Y Δ ² |
|----------------------------------|-------------|--------------|--------------|---------------|---------------|---------------------------|
| Number of Subscribers | 639,674 | 1,440,541 | 2,538,651 | 6,480,449 | 7,663,199 | 18.3% |
| Number of Transactions | 3.4 million | 22.2 million | 57.1 million | 104.8 million | 168.6 million | 60.9% |
| Transaction Value (FRW, million) | 51,024 | 161,808 | 330,378 | 691,477 | 1,093,497 | 58.1% |
| Number of Agents | 1,387 | 3,085 | 8,745 | 25,482 | 40,467 | 58.8% |

Mobile Money Usage in Rwanda: Key Statistics

- ❑ The increase in the percentage of adults who were formally served, though not banked, from 19% in 2012 to 42% in 2016 was largely driven by uptake of mobile money and Umurenge SACCOs³
- ❑ Uptake of Mobile Money (17%) was one of the key drivers of increased uptake of formal savings products in Rwanda, along with Umurenge SACCOs (27%)³
- ❑ Approximately 34% of adults have registered mobile money accounts, and a further 10% use someone else's mobile money account, and about 12% of adults have more than one mobile money account³
- ❑ On average, 1 in 3 adults only use their mobile money account to remit money or buy airtime, and 17% store or save money in their mobile money accounts³
- ❑ Mobile money agents were more accessible – as measured by time taken to reach destination – across all provinces and overall (31 minutes vs 50 minutes or more for Bank agent, bank branch, MFIs or ATMs³
- ❑ Rwandans living above the poverty line (45% vs 14% for those living below the poverty line), urban residents (40%, vs 13% for rural residents) and males (23%, vs 8% for women) are most likely to actively use mobile money services⁴

¹ [Mobile Payment Statistics](#), Bank of Rwanda website, accessed October 14, 2016.

² Author's calculations, based on data from [Mobile Payment Statistics](#), Bank of Rwanda website, accessed October 14, 2016.

³ Financial Inclusion in Rwanda 2016 (Access to Finance Rwanda, 2016).

⁴ Financial Inclusion Insights – National Survey Report Rwanda (CGAP, 2015).

MOBILE MONEY IN RWANDA – MAJOR DEVELOPMENTS

- The Government of Rwanda (GoR) has signed an agreement with Ericsson to develop a Rwanda Interconnect Switch (RIS), which will seamlessly link banks, mobile operators, money transfer organizations, and payment and financial services providers and enable end-users to enjoy, in real time, a range of digital payments possibilities across all financial platforms and service providers.¹
- Rwanda is one of only 3 African markets where mobile money interoperability is live.²
 - In May 2015, Vodafone M-Pesa and MTN Mobile Money announced an agreement to make their services interoperable, which will enable M-Pesa customers in Kenya, Tanzania and DRC to transfer money to and from MTN Money customers in Uganda, Rwanda and Zambia.²
- In 2015, the National Bank Rwanda (BNR) approved cross-border mobile money, which is expected to be a crucial source of revenue for Rwandan MNOs.³
 - Cross-border mobile money is available to and from a number of countries in Africa including Niger, Uganda, Tanzania, DRC, Malawi, and Rwanda.⁴
 - 4 out of 5 mobile money-based international remittance transactions in 2015 occurred in Africa.⁴
- Competition in the DFS market has driven integration between mobile banking offered by banks with mobile money platforms offered by telecoms and others;⁵
 - MTN has mobile money partnerships with Unguka bank, KCB, I&M bank, Access bank, Uregwo Opportunity bank and GT bank for their mobile money customers to withdraw and deposit money from their mobile money wallets using the banks' ATMs without using their bank cards and transfer money from their mobile money accounts to bank accounts.
 - Tigo Cash and Airtel Money have partnerships with KCB to enable customers of both institutions to send money seamlessly between any Tigo Cash wallet and KCB bank account.

¹ [Ericsson and Rwandan Government collaborate on financial inclusion](#) (Ericsson Press Release, May 13, 2016).

² [The Mobile Economy Sub-Saharan Africa 2015](#) (GSMA, 2015).

³ [Rwanda: Telecoms – 2015 a year of innovation, tight competition and uncertainty](#) (allAfrica, December 29, 2015).

⁴ [The Mobile Economy Africa](#) (GSMA, 2016).

⁵ [Financial Inclusion Insights – National Survey Report Rwanda](#) (CGAP, 2015)

OVERVIEW OF MOBILE MONEY PROVIDERS - MNOs



| | | | |
|-----------------------------------|--|--|---|
| Product Name | MTN Money | Airtel Money | Tigo Cash |
| Provider | MTN Rwanda | Airtel Rwanda | Tigo Rwanda |
| Number of Accounts* | | | 2.7 million |
| Mobile Money Market Share* | | | |
| Currency** | RWF | RWF | RWF |
| Agent Network | 280 service centers and agent locations nationwide | | |
| Registration Requirements | | Registered SIM card, National ID/ National Passport | Tigo SIM and a valid ID (national ID or passport) |
| Cash In/Out | MTN Service Centre or Agent (PIN required for deposit, PIN+ID for collection) and ATM (cash out) | Airtel Shops, Airtel distributor shops (18 in Kigali), Authorised Airtel Money Dealer outlet or ATM (cash out) | Tigo Cash Agent or TigoMatic |

¹ Source: MTN Money [website](#).

² Source: Airtel Money [website](#).

³ Source: Tigo Cash [website](#).

OVERVIEW OF MOBILE MONEY PROVIDERS - MNOs



| | | | |
|-------------------------------------|--|---|--|
| Mobile Top-Up | Yes, self and others (registered MTN Money only) | Yes, self and others (all networks) | Yes |
| Link with Bank account | Yes (KCB, I&M, Equity, Bank of Kigali) | Yes, check balance, send money from your phone to bank & from your bank to phone or to another bank account) | Yes, KCB customers (and <u>possibly</u> also Bank of Kigali) |
| Access to Credit | Yes, advance electricity token (MTN Rahura) | Yes ('Igurize Amafaranga') | Yes (TIGO Nshoboza) |
| Payroll | No | No | |
| P2P Payments (Domestic) | Yes, both registered and unregistered customers across networks | Yes, across networks | Yes |
| P2P Payments (International) | MTN Uganda (send only), Safaricom Kenya (send and receive) | Yes, to/from Kenya, Burundi, Tanzania, Uganda and DRC, Zambia via Airtel Money | |
| P2B Payments | Yes (buy pre-paid electricity, pay water and pay TV bills, purchase fuel, pay school fees) | Make purchases from Airtel Money merchants, pay bills (Water (WASAC), DSTv, GOtv, Startimes subscriptions, Electricity prepayment) and Rwanda Revenue Authority Taxes | Yes, (cash Power, StarTimes) |

¹ Source: MTN Money [website](#).

² Source: Airtel Money [website](#).

³ Source: Tigo Cash [website](#).

OVERVIEW OF MOBILE MONEY PROVIDERS – BANKS



| Product Name | mobicash | mHose | BK mVisa |
|-----------------------------------|--|----------------------------------|---|
| Provider | Partnership with KCB (TBC) ^{1a} | Urwego Opportunity Bank | Bank of Kigali |
| Number of Accounts* | | | |
| Mobile Money Market Share* | | | |
| Currency** | RWF | RWF | RWF |
| Agent Network | 17,000 agents | | Number of locations by Province: Northern (35), Eastern (30), Southern (44), Western (38) |
| Registration Requirements | ID, application form, phone number and fingerprint | | ID, registered phone number, and same KYC as bank account, done at branch or agent |
| Cash In/Out | MobiCash agent | mHose Agents and Urwego branches | BK mVisa agents |

¹ Mobicash [website](#).

² Urwego Opportunity Bank [website](#).

³ Bank of Kigali [website](#).

OVERVIEW OF MOBILE MONEY PROVIDERS – BANKS



| | | | |
|-------------------------------------|--|------------------------------|---|
| Mobile Top-Up | Yes | Yes | Yes |
| Link with Bank account | | Yes, Urwego Opportunity Bank | Yes, Bank of Kigali |
| Access to Credit | No | Yes | |
| Payroll | Yes | | |
| P2P Payments (Domestic) | Yes | Yes | Yes, MTN, Airtel and Tigo Cash |
| P2P Payments (International) | Yes (MobiRemit) - MoneyGram | Yes | Yes, MoneyGram, Western Union, Xpress Money, Instant Cash |
| P2B Payments | Yes (buy pre-paid electricity, pay water and pay TV bills, pay taxes, buy lottery) | Yes | Yes |

¹ Mobicash [website](#).

² Urwego Opportunity Bank [website](#).

³ Bank of Kigali [website](#).

MOBILE MONEY PROVIDERS – KEY POINTS OF DIFFERENCE

MTN Money

- MTN has the largest subscriber base in Rwanda
- Among the 3 main mobile money providers, MTN was first to market in 2010, followed by Tigo in 2011 and Airtel in 2013.
- Only credit offering – MTN Rahura – allows customers to get advance electricity credits and then repay at a later date through MTN Mobile Money Account.
- MTN has partnered with RwandaOnline Platform Limited (ROPL) to allow MTN Mobile Money customers to make payments for government services that are currently available on the Irembo platform (www.irembo.gov.rw) or via USSD, including for birth/death/marriage certificates, driving tests, visas, land titles etc.
- MTN has agents and a number of merchants who are equipped with POS machines

Airtel Money

- Cross-border money-transfer service (2015) between the Democratic Republic of Congo (DRC), Zambia and Rwanda and received regulatory approval from Banque Central des Etats de l’Afrique de l’Ouest (BCEAO) for launch in Niger.¹
- Bharti Airtel also has partnerships with Visa and MasterCard that links Airtel Money wallets with cards.²
- In May 2016, Airtel Rwanda partnered with RwandaOnline Platform Limited (ROPL) to allow Airtel Mobile Money customers to use their Airtel Mobile Money accounts to make payments for government services that are currently available on the Irembo platform (www.irembo.gov.rw) or via USSD.³
- Partnered with Atlantis Limited, a micro-finance institution licensed by BNR, to launch a micro-money lending platform whereby subscribers will be able to borrow up to Rwf50,000 payable in two weeks (‘Igurize Amafaranga’).⁴

¹ [Airtel mobile money service DRC, Zambia and Rwanda](#) (BizTech Africa, march 16, 2015).

² [Bharti Airtel Annual Report 2014-2015](#) .

³ [Airtel Rwanda and RwandaOnline in partnership to provide online payment solutions for Government Services](#) (Makuruki, May 10, 2016).

⁴ [Airtel to give clients soft loans](#) (NewTimes, March 31, 2015).

MOBILE MONEY PROVIDERS – KEY POINTS OF DIFFERENCE

Tigo Cash¹

- Tigo is the number 2 in voice, but the market leader in mobile money, with 2.4 million registered users
- Developed Rwanda's very first Mobile Saving account – Tigo Sugira – which allows customers to deposit and withdraw without any charge, while earning 7% interest per year (paid quarterly) on any amount of money saved.
- Partnership with JUMO to provide credit.
- Recently launched interoperability platform to integrate SACCO client accounts of over 77,000 customers from 20 SACCOs operating 60 branches across 20 districts in the country with their Tigo cash wallets, making it possible for customers to automatically transfer funds from their SACCO accounts to their Tigo Cash wallets and vice versa.^{1a}

mobicash²

- MobiCash uses a mix of authentication methods (Finger & Voice Biometric, PROXYDATA , NFC (Near Field Communication) and Very Smart Authentication for online purchases) that guarantee increased user functionality and enhanced security while accessing the user account.
- Offers 17 different value added services, including MobiRisj (insurance), MobiTicket (public transport and stadium tickets), MobiTax (pay taxes), MobiKids (financial education for children), but in Rwanda, the most relevant services include:
 - Agent infrastructure, including various POS devices as well as smartphones that can be used by multiple issuers including banks and (potentially) MNOs and contactless cards.
 - An OTC service for bill payments (MobiBills) at these agents
 - A MobiCash wallet that can be white-labeled, and which can facilitate bulk payments, as well as the usual wallet functionalities. Customers can access their account from any mobile phone on any network, a POS at a mobicash agent, via the Mobicard, an ATM and online.

¹ Source: Tigo [website](#).)

^{1a} [Tigo, SACCOs partner to ease access to financial services](#) (NewTimes, May 16, 2016)

² Mobicash [website](#).

³ Stakeholder Meetings (IFC, October 2016).

MOBILE MONEY PROVIDERS – KEY POINTS OF DIFFERENCE

mHose¹

- Designed to allow Urwego to reach those customers who are currently poorly served by the formal financial sector by offering a range of affordable and accessible financial services, including savings, credit (receive and repay their loan through mHose) and insurance products.
- Offered in partnership with VISA's interoperable mobile banking platform "mVISA .“

BK mVisa²

- An interoperable mobile wallet that targets underserved Rwandans by providing relevant, affordable and accessible financial services.
- Mainly used for bulk payments as well as serving customers of other banks.
- Customers must meet the same KYC requirements as opening a bank account, but account opening can be done at BK branch or at a BK mVisa agent

¹ Urwego Opportunity Bank [website](#).

² Bank of Kigali [website](#).