



Client Voices: Rwandans Speak on Digital Financial Services

June 2019



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Authorship and Acknowledgments

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1. Executive Summary	4
Client Voices: Why We Listened	4
Major Findings	4
Ideas for Action: Recommendations	7
.....	
2. Introduction	9
.....	
3. Mobile Money in Rwanda: Contextual Snapshot	10
Awareness and Take-Up	12
Access Channels	12
Emerging Value-Added Products: Digital Savings and Credit	14
In Mobile We Trust?	14
.....	
4. Client Protection Issues	16
Product Delivery Lapses: Network Downtime and Agent Liquidity	16
Transparency	22
Fraud	33
Privacy	40
Client Recourse	42
Mobile Credit	46
.....	
5. Protecting Rwanda’s Mobile Money Clients: What’s Next?	48
Preventing Fraud and Ensuring Privacy	48
Building Genuine Transparency	51
Strengthening Recourse	53
Responsible Mobile Credit Advertising and Underwriting	54
Effective Product Delivery: Network Downtime and Agent Liquidity	54
A Closing Thought on Trust	55
.....	
ANNEX 1. Methodology and Demography of the Quantitative Sample	56
.....	
ANNEX 2. Examples of the Mobile Money User Interface	60
.....	
ANNEX 3. Timeline of Mobile Money Services in Rwanda	62
.....	
ANNEX 4. National Advisory Council Members	63
.....	

Figures and Tables

FIGURE 1. Share of current users by reported frequency of mobile money account use	11	FIGURE 14. Share of clients who have complained, by issue	42
FIGURE 2. Share of clients reporting using each type of mobile money service	11	FIGURE 15. Complaints and resolution by settlement type (left) and financial health score (right)	45
FIGURE 3. Share of population that has a registered mobile money account, by location (left) and by gender (right)	12	FIGURE 16. SIM Swap Fraud Illustration	50
FIGURE 4. Share of study population by access to a mobile phone (left) and a SIM card (right)	13	FIGURE 17. RURA Anti-Fraud Social Media Post	50
FIGURE 5. SIM ownership by mobile network operator	13	FIGURE 18. Location of Research Sites in Rwanda	56
FIGURE 6. Share of clients who have ever experienced an issue with mobile money service availability due to network outage, by frequency of mobile money use (left) and urban/rural location (right)	17	FIGURE 19. Highest level of education completed, across the three districts	59
FIGURE 7. Share of affected clients by frequency with which they are affected by network outage issues in general (left) and in the past month (right)	18	FIGURE 20. Distribution of financial health scores calculated for our sample, across the three districts	59
FIGURE 8. Share of clients affected by network downtime	18	FIGURE 21. Initial screen when accessing the MTN Mobile Money interface	60
FIGURE 9. Share of clients by frequency of experiences of agents with insufficient cash or e-float	20	FIGURE 22. Main menu screen when accessing the MTN Mobile Money interface	60
FIGURE 10. Share of clients who find it is easy to make a mistake with the user interface, by frequency of mobile money use (left) and frequency of interaction with mobile money agents (right)	24	TABLE 1. Prevalence of issues reported by clients	16
FIGURE 11. Share of clients who are clear on fees before a transaction (left) and who report understanding fees, charges, and interest rates at registration (right), by whether they feel their agent is knowledgeable about mobile money	30	TABLE 2. Client opinions of information available at the time of registration	27
FIGURE 12. Share of clients who have been a victim of fraud, by district	36	TABLE 3. Association between clients' understanding of fees and whether their agent has time to answer questions	29
FIGURE 13. Share of clients who trust mobile money (left) and mobile money agents (right), by whether they have ever been a victim of fraud	38	TABLE 4. Association between knowledge of fees and frequency of mobile money agent interaction	30
		TABLE 5. Share of urban villages in total (column 2) and in our sample (column 3) by district	57
		TABLE 6. Number of respondents and share of respondents in final sample by user type	57
		TABLE 7. Basic demographic summary of our survey sample by district	58
		TABLE 8. Income distributions, based on last 30 days income estimates, across the three districts	58

1

Executive Summary

Today there are close to 700 million mobile money accounts registered worldwide—a number that, if it were a population, would rank as the world’s third-largest country.¹ East Africa continues to lead in digital financial innovations as well as account usage, with two-thirds of the combined adult populations of Kenya, Rwanda, Tanzania, and Uganda actively using mobile money.² With the proliferation of mobile financial services, particularly among underserved populations, it is vital that users be treated fairly and with dignity. In the momentum to define responsible digital finance and recognize providers of high-quality financial services, the industry must not forget the consumer.

Client Voices: Why We Listened

The Smart Campaign, a global initiative to create an environment in which financial services are delivered safely and responsibly to low-income clients, has long recognized that client perspectives are often underrepresented in consumer protection discussions. With the Client Voices Project, the Campaign questions whether the industry’s assumptions about what constitutes problematic treatment rightly reflect what clients themselves worry about. The dual objectives of the project are to solicit input from low-income clients about what they consider good and bad treatment in their interactions with financial service providers and to assess the prevalence of consumer protection problems among these clients, using quantitative surveys. The project is designed to act as a catalyst for financial service providers, regulators, industry associations, consumer advocacy groups, and others to improve client

protection in ways that are grounded in client feedback. Based on a survey of over 1,200 people in three districts in Rwanda, this report delves into the experiences of individuals who use digital financial services (DFS), the main client protection issues they are concerned about, and the impact and prevalence of negative experiences.

Major Findings

We find that mobile money enjoys a high degree of satisfaction and trust from clients in Rwanda, even though 40 percent of clients report being targeted by fraudulent schemes, which have become increasingly sophisticated. However, there are many ways that operations and practices can be improved to better protect clients and strengthen trust. Client recourse mechanisms, for example, represent an important area for improvement: many clients shared that they feel helpless and unsure about what to do after realizing they have been duped. Additionally, for business models that rely more on the mobile interface than on human interaction, clients increasingly rely on agents for information and guidance. This presents an opportunity to provide better service, as well as a risk for poor client treatment.

In Mobile We Trust for P2P Transactions

Most mobile money clients are content with the mobile money apps and agents they have used, though it appears that certain mobile transactions drive this enthusiasm. **Over 89 percent of clients reported trusting mobile money services.** Current clients who interact with mobile money agents report being satisfied or very satisfied with the agent

(63 percent and 28 percent, respectively). However, 93 percent of respondents reported a preference for cash transactions over digital ones. For more complex products such as savings accounts, clients show a strong preference for savings and credit cooperatives (SACCOs) and banks over mobile wallets or mobile savings accounts. Thus, it appears that **while trust in mobile money is high, that trust is for a specific set of services—primarily person-to-person (P2P) transfers.**

“The main reason I trust mobile money is that before sending money, they show me the name of the recipient. That way, I am assured that I have sent it to the right person and they will certainly get it. I really like that.”

FEMALE CLIENT, 44, NYARUGENGE DISTRICT

Pain Points: Product Delivery Interruptions

DFS service interruptions (such as network outages and agent liquidity shortages) are pain points that slowly chip away at clients’ perceptions of and trust in the DFS ecosystem. Roughly half (51 percent) of clients reported experiencing a network downtime issue at least once, with one-third of that group experiencing it once a month and 14 percent experiencing it once a week. Moreover, **17 percent of affected clients reported that they suffered a financial loss as a result of network downtime**, such as a penalty or missed opportunity from the inability to complete an important transaction. Just over half of respondents also reported experiencing an agent liquidity crunch a few times or less over the past year. Whether or not these hiccups and interruptions are the fault of the financial service provider, providers should take note of clients’ perceptions, which affect their feelings and trust.

“I wanted to buy a plot. I had to receive money from someone, which I had to [borrow]. The network went down and I couldn’t receive the money, so I lost the plot to others.”

FEMALE CLIENT, NGORORERO DISTRICT

Transaction First, Transparency Later

While most people surveyed report that mobile money interfaces are easy to use, they worry that it’s also easy to make a mistake. While 69 percent of clients believe it is easy to make a mistake, 17 percent have actually made a mistake using a mobile app. One issue is language: clients may select the wrong default language to begin with (English instead of Kinyarwanda, for example), and not all messages and options are available in Kinyarwanda.

Nearly one-third (31 percent) of clients reported being unclear about fees before making a transaction on a mobile app.

Without the assistance of an agent, clients report that fees are not displayed up front and are only confirmed via SMS after the transaction has taken place.

“For me, [using the app] is hard as I don’t use mobile money very often and... I did not go to school. But I go to the agent and he checks the balance for me.”

FEMALE CLIENT, 40, FARMER, NYARUGENGE DISTRICT

Many clients report that just being able to confirm that a transaction will go through or has gone through is enough information for them. Nonetheless, over 80 percent of clients reported that if they have a question about terms and conditions, they don’t know whether or how they can access this information.

Fraud: A Mutable Menace

Fraud against clients—more than any other issue examined in this report—damages trust. Many clients are aware of mobile money fraud through personal experience or through others: **39 percent perceive mobile money fraud as a big problem and 10 percent report being victims of fraud themselves.** The most common types of fraud reported are scam phone calls and SMS messages where fraudsters claim a client has won a lottery or some kind of prize or giveaway, or pretend to be a friend who is having a financial emergency.

“I am telling you, those people are serious. They call with your contact information and they even know your plot number. For instance, they may call saying: “We are from Kibungo and your plot here with this number is.... We are asking you to deposit RWF 98,000 [US\$87] on this mobile money account and in return, you are getting another plot worth RWF 6 million.”

DOCTOR, 36, NYARUGENGE DISTRICT

Clients who have experienced fraud trust mobile money apps and mobile money agents less than clients who have not, with a difference of 15 percentage points and 37 percentage points, respectively. Clients who fell victim to fraud suffered financial losses varying from RWF (Rwandan franc) 3,500 (US\$3.95) to RWF 75,000 (US\$85). Clients are understandably upset by financial loss; the nonfinancial consequences of fraud include emotional distress.

“You see, it makes you sad. You think about the time you wasted and that loss that just happened to you. If you were sending the money to pay for something, it is a waste.”

FEMALE CLIENT, 39, SALESPERSON, NYARUGENGE DISTRICT

Data Privacy: Not Top of Mind

In line with the high degree of trust clients report in this survey, **65 percent of clients believe that their data is safe**. Even among clients who report distrusting mobile money, 69 percent believe that their data is safe.

Encouragingly, almost all clients are aware of the necessity of personal identification number (PIN) nondisclosure and security; 97 percent report that they understand the need to keep their PIN secret. Similarly, 88 percent of clients report understanding that they might be liable for losses if they fail to protect security credentials and safeguard access to their account.

However, clients still do not fully appreciate the privacy concerns associated with mobile

money, which increases their vulnerability to fraud. The majority of respondents (72 percent) do not have a clear understanding of what data their mobile network operators (MNOs) collect on them. When asked what data they think MNOs collect, 36 percent of clients believe no data is collected. Those concerned about their personal data mostly worry that their phone numbers and names are being misused, because they were subsequently contacted and solicited.

“A person might call you. My name is A, so they are like, ‘How are you, A?’... I say I am okay. And you talk to them like you know them, but even when you don’t know them, they have wasted your time. Mobile money... exposes you or reveals your secrets when you register your SIM card. If there was a way that was more private, I would prefer it.”

FEMALE CLIENT, SALESPERSON, NYARUGENGE DISTRICT

Empowered to Complain

Roughly 27 percent of clients report having complained to mobile money providers, with close to 70 percent knowing how and what channels to use to complain. Despite reporting long wait times with call centers and sometimes multiple attempts to reach a customer service agent, **85 percent of clients using customer services centers report that they were able to resolve the issue**.

“I didn’t bother to go to the service center to report it because I would have had to spend transport costs and for nothing. What I did was to talk to my peers about what happened to me so that if anything like that ever happens to them, they will know that it is attempted fraud. I just shared the information with my people and let the case go.”

MALE CLIENT, CARPENTER, HUYE DISTRICT

Providers should take steps to reach those who were overcharged by agents, as well as those who chose not to report their fraud experience, and address their issues.

Mobile Credit: Nascent But Important

Mobile credit is a new product on the Rwandan market. Less than half of current mobile money clients had even heard of it, and even fewer had taken a loan (for those who had, the median loan amount was US\$6). However, given mobile credit's implications and growth, we wanted to better understand market dynamics and client experiences. We were pleased to hear from survey respondents that current mobile credit offerings already embody good practices, such as reminders to repay. However, we are concerned about deceptive marketing practices where advertised loans are not available to customers, as well as the lack of transparency around credit disbursement and rejection.

Ideas for Action: Recommendations

We hope that providers, industry associations, support organizations, regulators, consumer protection advocates, and clients can benefit from these findings to create a stronger, more inclusive client protection ecosystem. We offer specific recommendations for many of these stakeholders.

Providers and Industry

In addition to the GSMA's Mobile Money Certification Program, as well as the Smart Campaign Client Protection Certification Standards, both of which specify practices for providers in almost of all relevant areas including fraud, data privacy/security, transparency and disclosure, agent management, and complaint resolution, we offer the following recommendations:

➤ **Fraud Prevention:** Providers should communicate fraud prevention interventions to clients, since our research demonstrates that clients often feel helpless and hopeless in the face of fraud. Providers should work to ensure their clients know how to report potential fraud, and to increase trust in the complaint mechanisms so that fewer clients opt out. Finally, providers must work with authorities to decrease the percentage of defrauded clients.

Mobile money enjoys a high degree of satisfaction and trust from clients in Rwanda, despite their experience with increasingly sophisticated attempts at fraud. However, there are many ways that DFS operations and practices can be improved to better protect clients and strengthen trust.

➤ **Accessibility and Comprehension:** Providers should ensure that Kinyarwanda is fully available in all mobile handsets. Clients have a right to information in a language they can understand. While menus are often provided in Kinyarwanda, clients report that not all messages and options are.

➤ **Transparency:** Every single agent should have an MNO pricing sheet where clients can check for the applicable fee. It is unacceptable that so many respondents did not know in advance the fees they would be charged for making a transaction and had to resort to guesswork to make sure they were fully covered (or, if they didn't, risk a failed transaction). Providers should incentivize agents to inform customers of transaction fees in advance of completing a transaction and should publish sufficient information on mobile transaction fees.

➤ **Client Recourse:** Providers can do more to establish robust recourse mechanisms, especially in reducing wait times for call centers and communicating their availability to clients. In particular, providers could establish clearer call-center protocols and instructions, provide the ability to escalate complaints or skip to the front of the line, or implement SMS reminders to clients about what to do if they are victimized, since many customers were unsure how to seek recompense.

➤ **Truth in Advertising:** Providers should follow standards for honest advertising and face penalties for misleading marketing of mobile credit products.

➤ **Customer Service:** Providers must communicate planned outages to customers in advance, apologize after unplanned outages, and work swiftly to rectify mistakes that occurred during the downtime. Providers should also encourage customers not to leave sensitive information with agents or others to complete a transaction that failed during a network outage.

➤ **Promoting Good Practices:** The industry at large—including investors, trade associations, and support organizations—can incentivize providers to adhere to good practices through investments, codes of conduct, or technical assistance.

Regulation and Policymakers

DFS consumer protection is already embedded in pieces of extant Rwandan law and regulation overseen by the National Bank of Rwanda (BNR), the Rwanda Utilities Regulatory Authority (RURA), and the Rwanda Investigation Bureau (RIB), among other entities. However, based on our findings, the following can help strengthen the DFS ecosystem:

➤ **Increase Awareness of Mobile Money Fraud:** While the government has embarked on several awareness campaigns regarding privacy and fraud, given the low levels of client awareness regarding how to report fraud and of the data that MNOs collect, the government should increase public awareness in this area.

➤ **Develop Blacklist.** The BNR regularly collects data from payment institutions on agents, agent fraud, and agent termination (for cause); however, there is no agent blacklist. A blacklist could be a good shared resource between regulators and providers to avoid re-employing individuals previously terminated for fraud.

➤ **Develop Comprehensive Data Privacy and Protection Framework:** While Rwanda has basic covenants regarding data privacy within network security regulation and other statutes, there is no comprehensive data privacy and data protection framework.³

➤ **Monitor Cybersecurity Risks:** Regulatory and supervisory authorities might consider requiring annual cybersecurity reports from mobile money and other DFS providers, as well as conducting cybersecurity-related site visits with providers.

➤ **Clarify and Strengthen Regulations on Fee Disclosure:** Payment service providers already provide the BNR their terms and conditions for review. However, more could be stipulated with regard to readability and usability by vulnerable and illiterate populations. Additionally, the law is not clear regarding the timing of disclosure, citing only that information must be shared “before or at the time the electronic fund transfer is carried out.”⁴ Given clients’ low understanding of and engagement with terms and conditions in their full contracts, we also suggest that the BNR consider an approach similar to the one it took with consumer credit providers and require digital “Key Fact Sheets” that summarize terms and conditions for DFS products.⁵

➤ **Strengthen Call-Center Protocols:** The law requires providers to acknowledge a complaint within five days, resolve the problem within fifteen days, and report all data to the Central Bank.⁶ Given the issues with call centers reported in this study and that they appear to be most common form of grievance redressal, regulators should consider requiring standards for wait times as well as providing guidelines around quality control.

Introduction

2

Today there are close to 700 million mobile money accounts registered worldwide—a number that, if it were a population, would rank as the world’s third-largest country.⁷ East Africa continues to lead in digital financial innovations as well as account usage, with two-thirds of the combined adult populations of Kenya, Rwanda, Tanzania, and Uganda actively using mobile money.⁸ With the proliferation of mobile financial services, particularly among underserved populations, it is vital that users be treated fairly and with dignity.

In the momentum to define responsible digital finance and recognize providers of high-quality financial services, the industry must not forget the consumer. This report delves into the experiences of DFS users in Rwanda. The research focuses on client protection and the impacts and prevalence of negative experiences. Section 1 provides context regarding mobile money in the three study districts—which are in urban, peri-urban, and rural Rwanda—using quantitative survey results on awareness, usage, and trust of DFS. Section 2 examines the client protection issues respondents reported during the in-depth quantitative survey, qualitative interviews, and focus-group discussions. We are grateful for the time the 1,200+ respondents took to answer these questions and for their willingness to share their experiences, perceptions, and aspirations. Section 3 offers recommendations that providers, industry associations, support organizations, regulators, and consumer protection advocates can use to create a stronger, more inclusive client protection ecosystem.

The Client Voices project on digital financial services in Rwanda consists of a quantitative survey and qualitative research.^{9,10} The quantitative component was a survey of 1,205

respondents in three districts about the experience and prevalence of client protection issues among mobile money clients. The first few survey modules delved into financial access and use, general awareness of mobile money and other DFS services, and perceptions and trust of the various provider types. The remainder of the modules examined a variety of client protection issues, including network downtime, transparency, disclosure, privacy, and complaint resolution. Although mobile credit is not yet widespread in the Rwandan market, the research team included a specific module on client protection risks associated with digital credit due to its startling growth in East Africa and the accompanying increase in scrutiny and attention.

While most respondents are current DFS users, the sample also includes some past DFS users, financially excluded persons, and persons who are financially included but do not use any type of DFS. Three districts were specifically chosen from Rwanda’s 30 districts as the focus of this study: the urban Nyarugenge district within Kigali City; the peri-urban Huye district, home to one of Rwanda’s secondary cities; and, the rural Ngororero district in the Western Province.¹¹ The results of the quantitative study are representative at the district level but not at the national level.¹²

Following the quantitative survey, we conducted qualitative work through semi-structured interviews and focus groups with individuals and mobile money agents. Our interviews homed in on issues that arose in the quantitative survey, allowing respondents to paint a picture of what exactly happened when they experienced an issue, the impacts and consequences for them, and what recourse, if any, they were able to access.¹³

3

Mobile Money in Rwanda: Contextual Snapshot

The Rwandan government is committed to financial inclusion and the goals set in its 2016–2020 *Financial Sector Development Plan II*. Legislation for startups in Rwanda is supportive, such as the RURA sandbox, where fintech startups can launch initiatives and be regulated at a later stage (sometimes up to a year). In addition, government payments are increasingly being digitized. However, there are no comprehensive data privacy laws.¹⁴

Rwanda was one of the first countries to introduce mobile money services, in 2009. Usage has only taken off in the last few years, however, along with rapid innovation in product offerings. The first commercial mobile money service in Africa was Safaricom’s M-Pesa, which started in Kenya in March 2007. The first mobile money services in Rwanda began two years later, with MTN Mobile Money launching in February 2009, followed by Tigo Cash in May 2011 and Airtel Money in July 2013. The services provided by these three MNOs are the main channels for digital financial services in Rwanda and the focus of this report. In December 2017 Airtel announced the acquisition of Tigo’s Rwanda operations, but at the time of data collection Airtel and Tigo were still separate operations.

The first mobile money services involved transactions: sending, receiving, depositing, and withdrawing money. However, mobile money services are changing fast with the introduction of new products and services—including mobile savings, credit, and insurance. Of particular interest for client protection are emerging digital credit products. All three MNOs have developed such products in the past few years, the most notable being the introduction of MTN MoKash savings and loans services in February 2017. In the three

districts surveyed in this research, the uptake of digital savings and loans services is still low, so it seems timely for this research to identify opportunities for consumer protection while the scale of these products is still nascent.

The following figures are based on results from our quantitative survey and help to illustrate digital financial access, usage, and trust, as well as frame the context within which client protection issues are occurring. Most current users tend to use mobile money at least once per month (Figure 1).

The services offered by mobile money cover three main categories:

1. One-person transactions, such as withdrawals, deposits, and savings
2. Two-person transactions, such as sending/receiving money and payment for goods/services
3. Transactions between a person and an institution or business, such as payment/receipt of salaries, receiving grant/aid, paying bills, taxes, and insurance payments.

Of the various services mobile money offers, we find that one and two-person transactions are the most commonly used (Figure 2). Digital financial interactions between individuals and institutions or businesses occur less frequently. Mobile money credit also appears to be underutilized, potentially because it was only widely introduced in 2017.

In Rwanda, mobile money agents are the point of entry for account registration, transactions involving cash, or SIM-card services. Mobile money agents are found on the street on a stool under an umbrella, or

FIGURE 1

Share of current users by reported frequency of mobile money account use

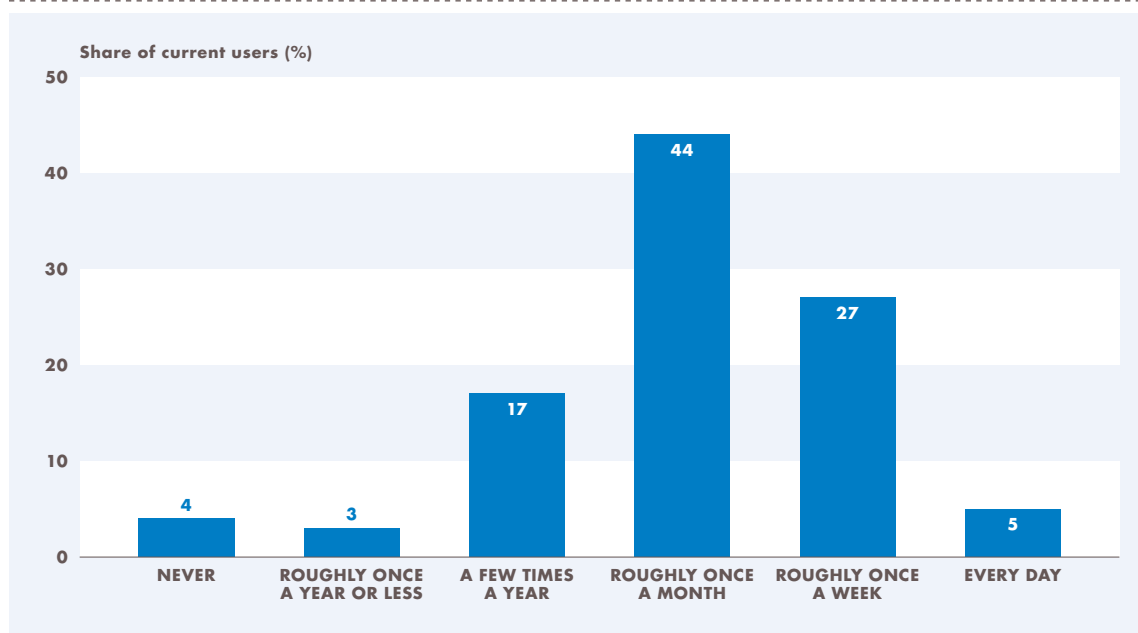
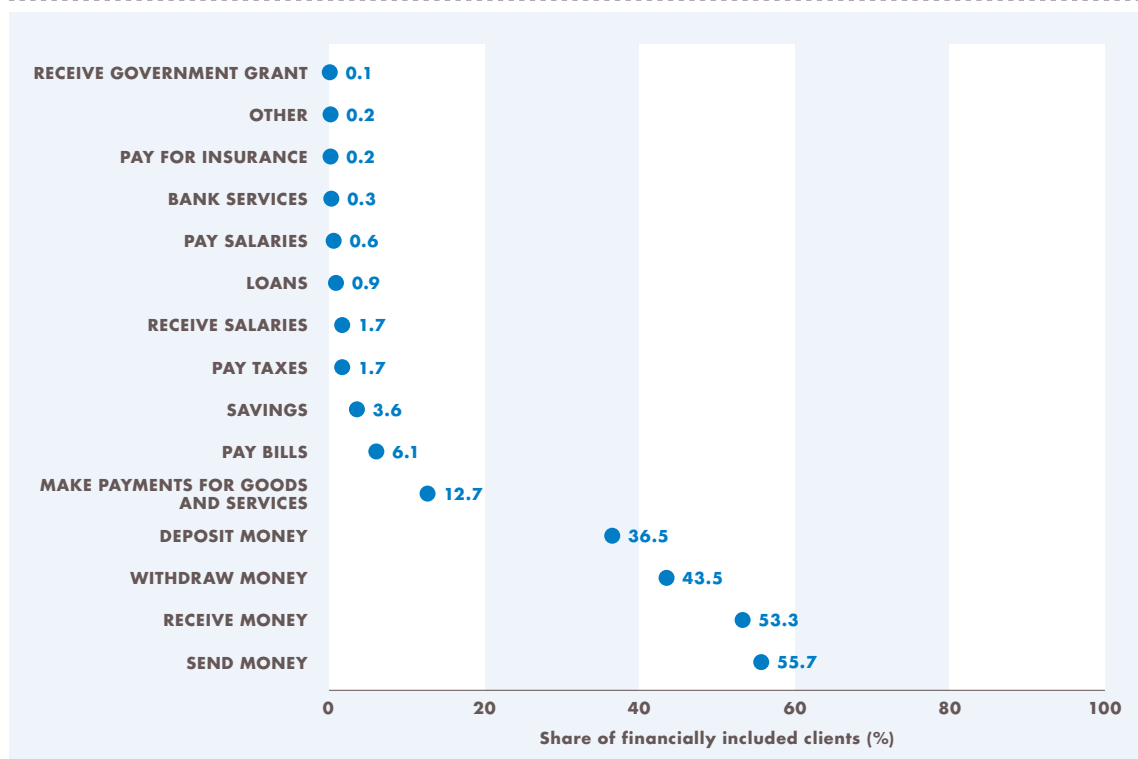


FIGURE 2

Share of clients reporting using each type of mobile money service



in stand-alone kiosks. They usually provide a wide range of services for one MNO. Additionally, airtime scratch cards are sold in small shops, often for multiple MNOs. Mobile money agents use digital cash/e-float to meet customer demands to make transfers to other mobile money accounts or to purchase or sell electronic money. They are key players in the DFS ecosystem.

Awareness and Take-Up

Awareness of mobile money has grown rapidly in the past two years in Rwanda, with 95 percent of the respondents having heard of it, compared to 59 percent in 2016. Almost half (44 percent) of respondents who are aware of mobile money report hearing about it on the radio.¹⁵

Usage rates are also high. In the studied districts, 51 percent of respondents had made a mobile money transaction in the ninety days prior to the survey. Of those who have heard of mobile money, 58 percent have registered a mobile money account (compared to 43 percent for the three districts in 2016).¹⁶ Additionally,

71 percent of the respondents report using mobile money at some point in the past.

Among people who have never used mobile money, the main reason was lack of access to a phone, SIM card, or point of service. Other common reasons are lack of knowledge of mobile money services or not knowing how to obtain mobile money.

We find pronounced differences in mobile money accounts between rural and urban areas and between men and women (Figure 3). Men are more likely than women to have their own mobile money accounts, and the difference is even more pronounced in rural areas. In rural areas, 39 percent of women have registered an account compared to 61 percent of men (a gender gap of 22 percentage points), whereas in urban areas 82 percent of women and 96 percent of men have their own account (a 14-point gap). In rural areas, households typically have lower incomes and may not have multiple phones, which, in combination with rural women's limited control over financial resources and decision-making, could explain the gender gap.

The majority of clients use their own account when using mobile money (74 percent), but not all clients reported registering an account. Of the users who have never had their own mobile money account, 58 percent say it is because they do not have access to a phone or SIM card, 20 percent say they don't see the use of having their own account, 19 percent report not knowing how it works, and 9 percent report not knowing how to register.

A small part of the population of our three districts have stopped using mobile money (5 percent). The most common reason reported is nonrenewal after losing a phone or SIM card.

Access Channels

The means of access to mobile phones and SIM cards vary between urban and rural areas. Mobile phone access, either through one's own phone or somebody else's, averages 90 percent in the three-district study population, but this varies widely by district, with 90 percent owning phones in urban Nyarugenge, compared to 48 percent in periurban Huye and 51 percent in rural

FIGURE 3

Share of population that has a registered mobile money account, by location (left) and by gender (right)

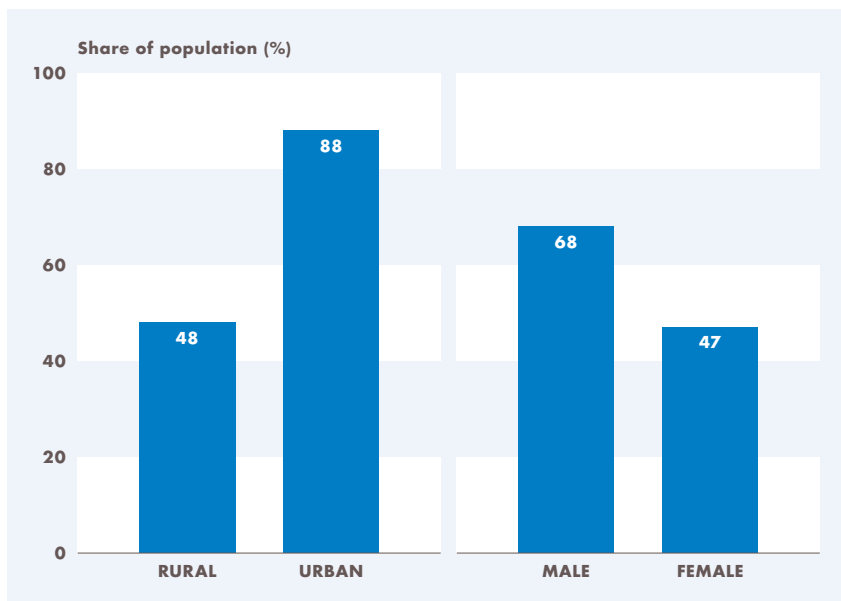
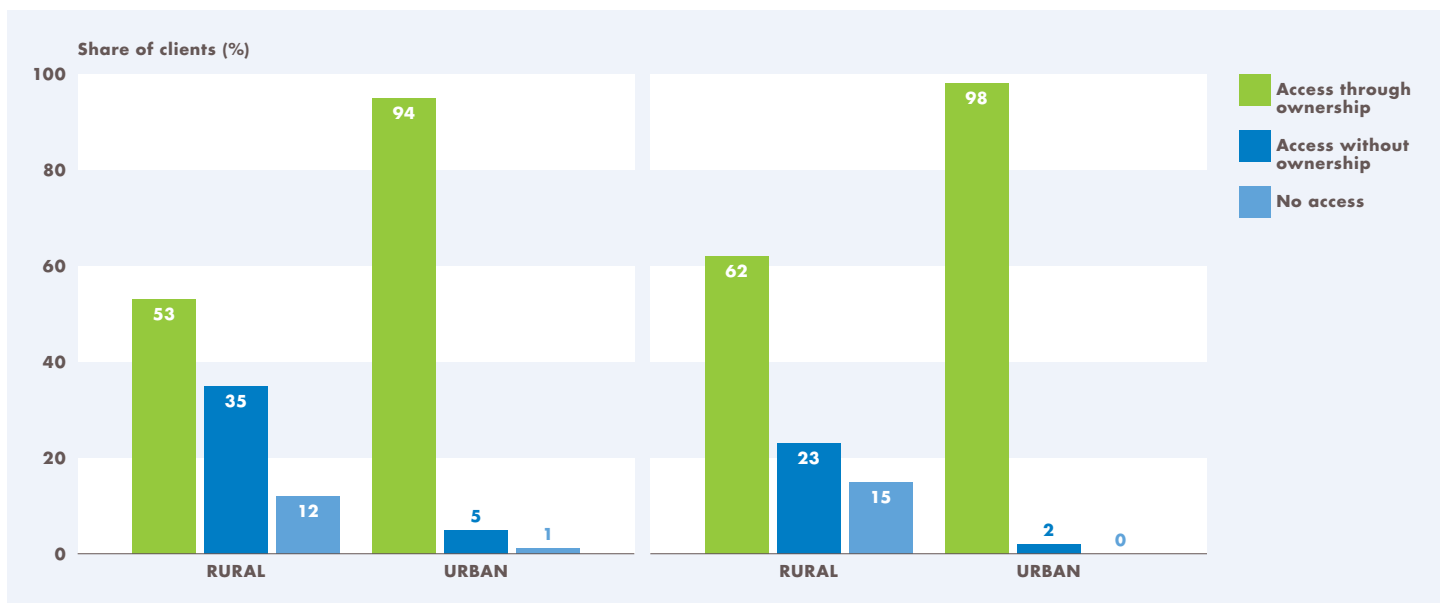


FIGURE 4

Share of study population by access to a mobile phone (left) and a SIM card (right)

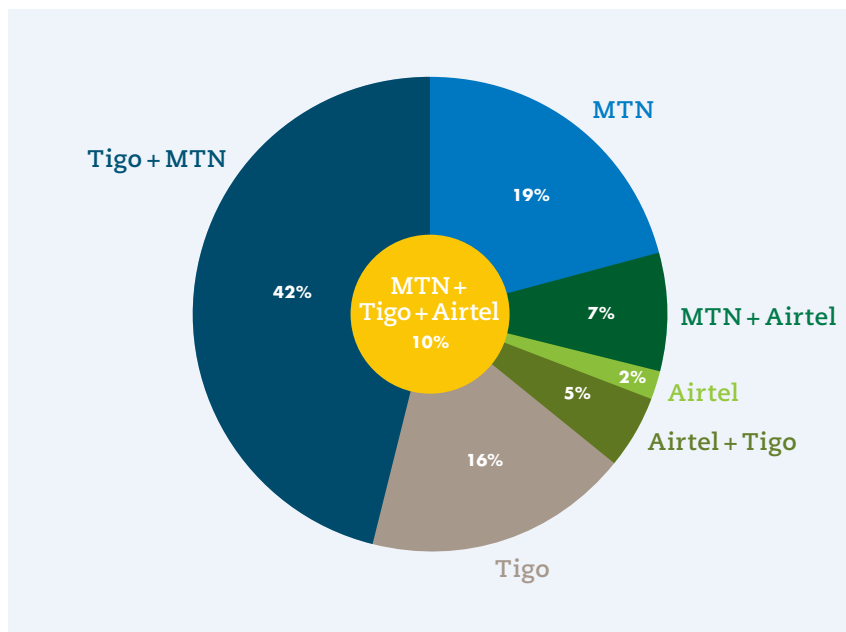


Ngororero. SIM access has a similar urban/rural pattern, with rural clients more likely to use someone else’s SIM, but to a lesser extent than using someone else’s mobile phone (Figure 4). This tells us that sharing another person’s mobile phone or SIM card is fairly common in rural areas but not in urban areas (Figure 4). Among mobile phone owners, smartphones account for 43 percent of phones in urban areas compared to just 10 percent in rural areas.

Half of the SIM owners have SIM cards from multiple MNOs. MTN and Tigo SIM card ownership is much more common than Airtel, and MTN SIM card ownership is slightly larger than that of Tigo (Figure 5). As of May 2018, the RURA reported similar statistics, with MTN holding 45 percent of the market, Tigo 37 percent, and Airtel 17 percent.¹⁷ Ownership of multiple SIM cards may be driven by preferential rates for within-network calling, lack of interoperability across mobile money services by different MNOs, and SIM card promotions.

FIGURE 5

SIM ownership by mobile network operator



Emerging Value-Added Products: Digital Savings and Credit

Mobile Savings

In Rwanda there are two designated mobile savings products: MTN's MoKash Savings (started February 2017) and Tigo Sugira (April 2015).¹⁸ Both savings accounts are linked to the client's mobile money account, and deposits and withdrawals can only be made using the linked account. Both providers offer an interest rate of 7 percent per year, paid quarterly; neither requires a minimum balance or deposit; and withdrawals can be made anytime and are credited immediately or within 48 hours. Both products are offered in partnership with traditional banks: MTN's MoKash Savings is partnered with Commercial Bank of Africa, and Tigo Sugira is partnered with Urwego Bank.

Nevertheless, clients can use mobile money as a digital wallet to store financial resources, and many (31 percent) save this way even though a savings account would pay interest. Only 3 percent reported using mobile savings accounts.

"Keeping money electronically helps to manage it better, especially when you receive [money] before you have planned what to do with it."

CLIENT, NYARUGENGE, FOCUS-GROUP DISCUSSION

Even though the overall reported trust in mobile money is high, as discussed below, we find some concerns regarding the safety of money stored digitally. A majority of the respondents (53 percent) believe that it is easy to lose money stored on mobile phones, and 29 percent believe that losing one's phone would mean losing money stored on their mobile money account. Technically, this should not be the case, as MNOs provide a SIM-swap service for lost or stolen SIM cards that recovers the balance from the account. Our interviews find that issues with SIM cards (including SIM swaps) can be difficult to resolve for those who are far from urban service centers. Additionally, experiences with identity theft and stolen PINs strengthen distrust. Given the low usage of these products, we did not delve deeply into consumer protection during the qualitative interviews.

Mobile Credit

As in other markets in East Africa, mobile money operators in Rwanda have recently started offering short-term loans marketed as "a reliable source of credit in moments of emergency."¹⁹ The first product launched was Airtel Cash's Igurize Amafaranga (Borrow Money) in March 2015, delivered in partnership with Atlantis Microfinance. However, the recent launch of MTN's MoKash in February 2017, in partnership with Commercial Bank of Africa, has made mobile credit much more widely accessible.²⁰ MTN MoKash offers loans starting from RWF 100 (US\$0.11)²¹ up to RWF 300,000 (US\$338) for up to 30 days at a 9 percent fixed fee, a longer-term and larger maximum than Airtel. In February 2017, Tigo launched a pilot, Tigo Nshoboza Loan Service, but it has yet to launch the service for commercial use.

While awareness of mobile money is very high, awareness of mobile credit among current mobile money users is much lower, at 40 percent. Most people learn about mobile credit via marketing text messages and radio advertisements. In our sample, 78 percent of those who had taken out a loan were from Nyarugenge.

In Mobile We Trust?

Of all the clients who use or have used mobile money, over 89 percent reported trusting the money services. Former mobile money account holders did not cite lack of trust as the reason for closing their accounts, and few from the "digitally excluded" population (2 percent) report lack of trust as the reason keeping them from using these services. Some clients report that trust comes after trying the service and finding that it works.

"It was hard to believe that we could send money to Kigali without taking it ourselves and it reaches there all right.... We thought it was unbelievable, but [the MNO's promoter] convinced us and when we tried it, it worked well, so our trust increased."²²

FEMALE CLIENT, FARMER, NYARUGENGE

Issues that negatively influence trust in mobile money include fraud (to be discussed later), lack of transparency, and agent mistakes.

Clients complain that agents often enter the amount to be transferred or the recipient's details incorrectly, resulting in a loss of money for the client. This might be done either deliberately or by mistake—though it may be difficult for clients to know the agent's intentions. Similarly, some clients report that a lack of transparency regarding charges and fees, particularly when these change frequently, reduces trust. One feature that helped build trust was displaying the name of the recipient prior to sending a payment. This adds a sense of tangibility to an otherwise abstract transaction.

“The main reason I trust mobile money is that before sending money, they show me the name of the recipient. That way, I am assured that I have sent it to the right person and they will certainly get it. I really like that.”

FEMALE CLIENT, 44, NYARUGENGE

More people reported trusting mobile money (81 percent) than trusting banks (73 percent).

Trust is slightly lower for other institutions, such as Umurenge Savings and Credit Cooperatives (SACCOs) (54 percent) and Village Savings and Loan Associations (VSLAs) (62 percent). **Given that mobile money is mainly a payment service (rather than a savings or credit product), does higher trust for it mean clear disapproval of other institutions that offer different products? The answer does not seem clear.** For example, saving via a mobile wallet or a digital savings account is less popular than saving via SACCOs (used by 26 percent of respondents) and informal savings groups (52 percent).²³ These findings are corroborated by a 2016 Finscope survey that asked respondents which institutions they most trusted to save their money, and mobile money was not a popular choice compared to traditional institutions: Umurenge SACCOs were the preferred choices for 57 percent, banks 27 percent, savings groups 9 percent, and mobile money 4 percent.²⁴

In addition, urban and rural Rwandans are generally partial toward using cash for transactions, though there are specific instances where mobile money is preferred.

In the quantitative survey, 93 percent of respondents reported a preference for cash transactions over digital ones.

“I pay cash if the receiver is near. It depends on how much I have to give them. If the amount in question is small, I give them cash to avoid paying charges which would only reduce it to an even smaller amount and they wouldn't be able to do what they planned with it.”

FEMALE CLIENT, 41, FARMER, NYARUGENGE

Qualitative interviews corroborate this general preference for cash transactions, but also showed that digital mediums can be preferred in time-sensitive transactions or transactions across large distances. One client explains why she prefers cashless transactions:

“Because it is the easiest. Assume a person is in Cyangugu [approximately 146 miles from Nyarugenge], and calls me that they want to pay me in five minutes; I ask them to send it through mobile money. Even if I don't withdraw it in those five minutes, I know that I have it on my account and the person has paid their debt. This is why I like mobile money.”

FEMALE CLIENT, 44, NYARUGENGE

Some agents claim that mobile money is cheaper in some cases than non-digital transaction channels.

“Using mobile money reduces costs on some services. For instance, when paying Rwanda Revenue taxes through a bank like BK while you are not its client, you are charged more, but that is not the case with mobile money.”

AGENT, NGORORERO, FOCUS-GROUP DISCUSSION

“Registering in mobile money is easy and affordable. To open an account in banks like BK or SACCO, one has to pay for a bank-account book, which is expensive.”

AGENT, NGORORERO, FOCUS-GROUP DISCUSSION

Thus, while reported trust in mobile money is indeed high, it's important to keep in mind that it appears to be for specific use cases, in a broader context of preferring cash.

4

Client Protection Issues

In this section we present and discuss the main issues that clients report in using mobile money, including network quality, agent liquidity, the mobile money interface, information disclosure, fraud, and client recourse. Through our quantitative survey we explore the extent to which these issues are experienced across our three districts. Where relevant, we highlight differences across age, gender, and mobile money service used. Our

qualitative interviews home in on the personal experiences of clients to paint a more detailed picture of what happened, the impacts and consequences, and what recourse, if any, clients can access.

The vast majority of clients are satisfied with mobile money and mobile agents. In our three districts, 49 percent of clients report being satisfied and 46 percent report being very satisfied with mobile money—amounting to 95 percent being satisfied or better. Moreover, a strong majority of current users who interact with mobile money agents (91 percent) report being satisfied or very satisfied with the agent (63 percent and 28 percent, respectively). These high levels of satisfaction are an impressive endorsement of the success and quality of mobile money services in Rwanda.

Nevertheless, our interviews revealed concerns regarding mobile money and client protection—from information opacity to outright fraud, as shown in Table 1 (ordering of risk done by authors).

Product Delivery Lapses: Network Downtime and Agent Liquidity

Clients are entitled to products and delivery channels that function as advertised. They are also entitled to timely access to their funds. This section presents findings on network downtime and agent liquidity, which constrain a client’s ability to transact and access their funds.

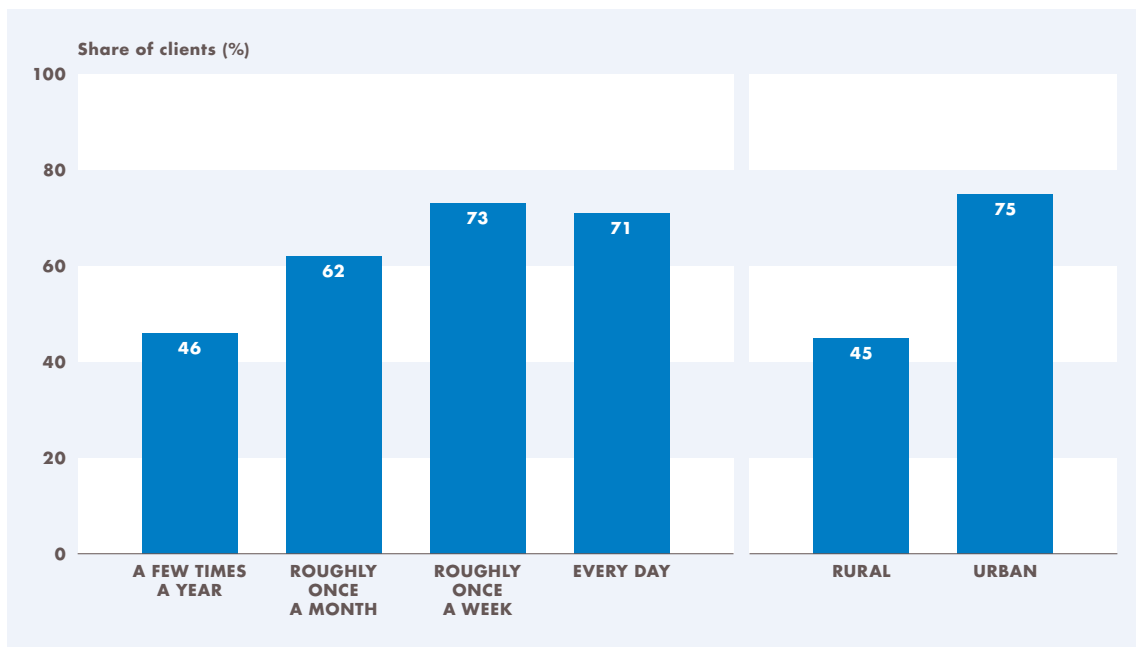
TABLE 1

Prevalence of issues reported by clients

SHARE OF CLIENTS WHO...	
Don't have a copy of terms and conditions	86%
Don't understand what data mobile money providers collect	72%
Believe the mobile interface can be improved	65%
Have experienced an agent with insufficient cash or e-float	50%
Have experienced network unavailability	51%
Have reported an issue that was not resolved	35%
Are not clear on fees before making a transaction	31%
Don't know where to complain if they have an issue	30%
Didn't understand the terms and conditions when registering	20%
Have been a victim of fraud	10%

FIGURE 6

Share of clients who have ever experienced an issue with mobile money service availability due to network outage, by frequency of mobile money use (left) and urban/rural location (right)



Network Downtime

Network outages cause mobile money services to become unavailable, disabling all transactions. More than half, 51 percent, of clients report experiencing this issue at least once. Clients who use mobile money often are more likely to report network downtime than less frequent users (Figure 6). This also explains greater reportage of the issue in urban areas, as urban clients tend to use mobile money more frequently.

Of clients who have experienced network outages, 31 percent reported that they experience this roughly once a month and 15 percent said roughly once a week (Figure 7). In the past month, 18 percent of clients reported that they had experienced outages three or more times (Figure 7).

Some clients also report having experienced network downtime many times within a single day:

“That is a problem that occurs very often. We barely ever go an entire day without having a problem of such nature. It happens randomly... simply out of nowhere and at times for hours on end.”

FEMALE CLIENT, 56, HUYE

The duration of network downtime varies across client experiences.

“Sometimes it takes 30 minutes... or even one hour to come back.”

FEMALE CLIENT, NGORORERO

“There was a time I had this problem the whole week. I tried to make transactions but failed. I kept trying, though, and sometimes it worked, but that week was full of network problems.”

FEMALE CLIENT, NYARUGENGE

FIGURE 7

Share of affected clients by frequency with which they are affected by network outage issues in general (left) and in the past month (right)

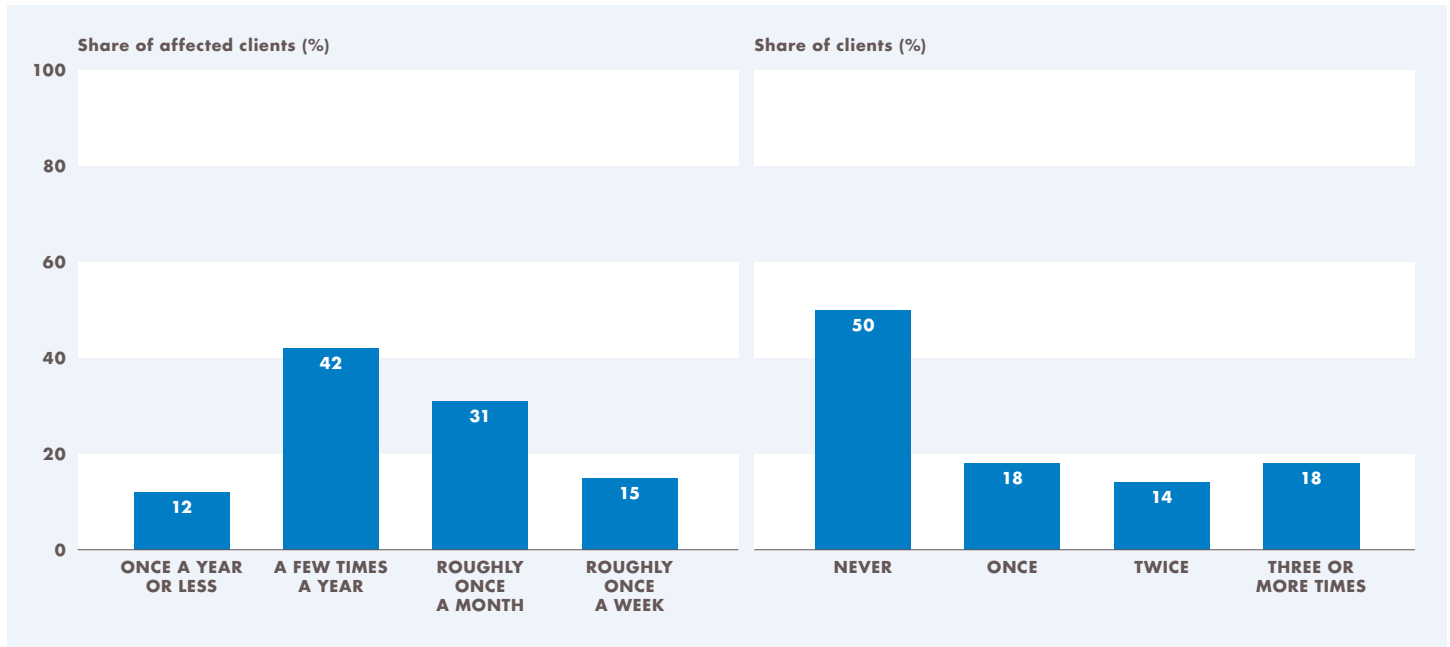
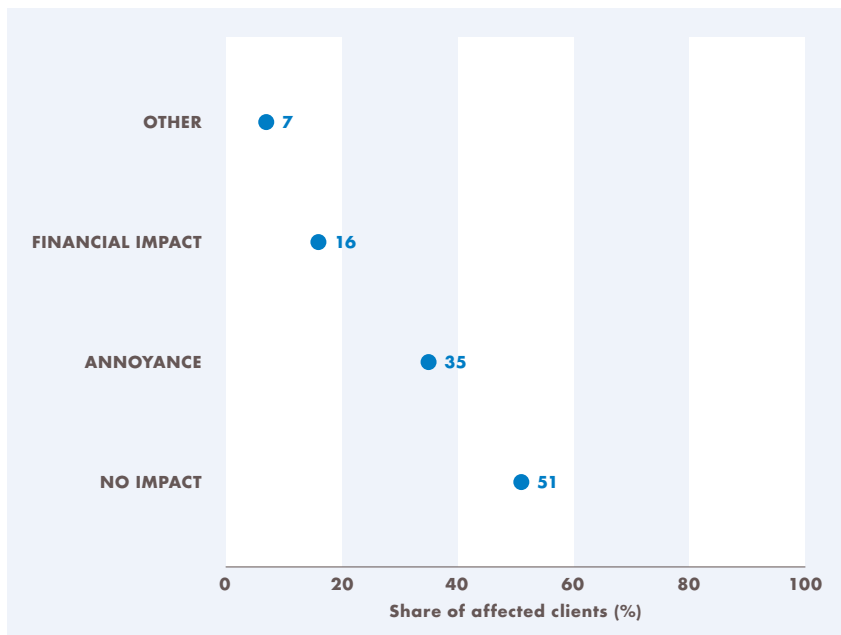


FIGURE 8

Share of clients affected by network downtime



The most significant consequence of network downtime is not direct loss but the inability to complete transactions. Some clients reported breakdowns in financial transactions, such as sending or receiving money or paying for loans. Most of these were rectified by the MNOs, though not necessarily promptly:

“I had to pay a loan of RWF 11,000 (US\$12) but... it was discharged five times. I called the service provider help line. They told me that they had also noticed it in their system. They asked me to wait, that it was going to be arranged. [But] I waited for a whole day.”

MALE CLIENT, NYARUGENGE

In some cases, network downtime can have significant consequences, such as financial losses due to the inability to complete a transaction. In the quantitative survey, 17 percent of affected clients reported a financial loss as a consequence of network downtime (Figure 8):

“I wanted to buy a plot... I had to receive money from someone, which I [was going to use to buy the plot]. The network went down and I couldn't receive the money so I lost the plot to others.”

FEMALE CLIENT, NGORORERO

In qualitative interviews, the most frequently reported consequence was the inability to purchase electricity, leading to blackouts:

“It was on my child's baptism day when I tried to buy electricity but failed due to network unavailability. It upset me mostly because we were having a party. People expected to dance and have fun together, but they couldn't because there was no power.”

FEMALE CLIENT, 41, NYARUGENGE

When faced with network downtime, most clients have no alternatives other than to wait for service to be restored. Our quantitative survey found that 90 percent of clients that experienced network outage report that they wait for networks to come back. Few clients took any other action.

“There is no alternative. For instance, when we go to buy electricity and there are network downtimes, we wait until networks come back, even if it may be for a week.”

MALE CLIENT, HUYE DISTRICT

A small number of clients reported using alternative methods when faced with network downtime, such as another mobile network operator or informal channels.

“When I fail on X mobile money, I ask my child to use Y instead. If both fail, we try something else.”

FEMALE CLIENT, NYARUGENGE

“The network often fails me when I am trying to withdraw money to contribute in my saving group... When it happens, I borrow from a certain shop owner and pay them later when the network comes back.”

FEMALE CLIENT, NGORORERO

While many respondents expressed discontent with network downtime, they wouldn't consider switching to another mobile money service or opting out completely. In the quantitative survey, 27 percent of respondents affected by network downtime report that it affected their opinion of mobile money. But clients feel they have limited alternative options:

“That moment, I felt so angry and thought that if there was a better service provider, I would definitely switch to it.”

FEMALE CLIENT, NYARUGENGE

Action by MNOs to inform clients of network downtime was welcomed by clients. Our quantitative survey finds that 42 percent of clients have received text messages from MNOs informing them of planned network downtime, and these messages are widely perceived as helpful (94 percent). Though many clients acknowledged the importance of the messages in enabling them to plan their transactions ahead of time, a small number of clients expressed dissatisfaction with their timing:

“They all give out warnings. But sometimes they would send a message [after] to apologize if you face the network issue [without] receiving warning messages.”

FEMALE CLIENT, NYARUGENGE

When the authors discussed these findings with MNO representatives, the representatives expressed some skepticism that networks were down as often as clients recalled. They suggested that respondents might be confusing network downtime with power outages or perhaps misremembering. However, regardless of the actual cause and frequency, providers should take note of clients' perception, since this affects their feelings toward and trust in the network.

SMART CAMPAIGN REACTION TO RESULTS

As the digital ecosystem continues to evolve, Rwandans rely on digital finance for an increasing number of daily tasks, including commerce, education, and healthcare. With more than half of our survey respondents experiencing downtime and 17 percent suffering financial consequences, as the ecosystem deepens, the consequences of network outages will likely become more severe.

Agent Liquidity

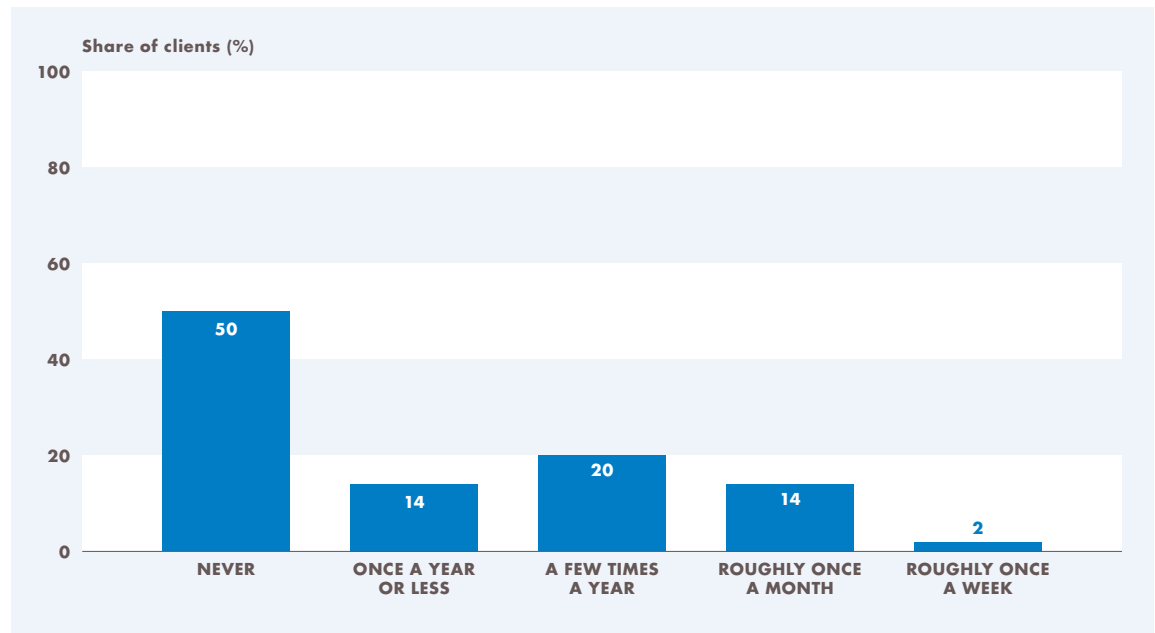
Over half of the mobile money clients we surveyed (53 percent) had experienced agents who could not support transactions due

to lack of sufficient cash or e-float. Of these clients, most experienced this a few times a year or less. Lapses appear to be driven by systemic issues but also, occasionally, by agent misconduct. As the “human face” of mobile money, agents are integral to the experience of clients and present both risks and opportunities for client protection.

However, agents also feel genuinely restricted by lack of cash and express a need for financial support from the MNOs so they can provide better services. Agent liquidity issues vary based on the time of day. Agents tend to be well topped up with e-float in the morning but their liquidity depletes over the course of the day. By the afternoon or evening, agents have built up a cash reserve but lack e-float, since deposit commissions do not outweigh withdrawals.

FIGURE 9

Share of clients by frequency of experiences of agents with insufficient cash or e-float



At times, agents also lose unexpected amounts of cash/e-float:

“There are cases where you send airtime to a customer and the transaction occurs twice. It sometimes happens to me, but I can’t contact the customer because they are already gone, and even if I did, they wouldn’t answer my call.... In addition to airtime cases, there are also the times we withdraw money from a customer and we don’t receive it on our phones even though the customer’s account shows that the money was withdrawn. Obviously, you have to give the customer their money, and then you are left alone to deal with the problem.”

AGENT, FOCUS-GROUP DISCUSSION

Some agents admit to misusing their cash or e-float for personal benefit:

“We also use it to buy drinks often. There are cases where you run short of cash when you are in a bar. So you move close to the bartender and inform him that you will be paying him with mobile phone, that you will even add the amount he might be charged for withdrawing it. That way, he gives you the Mützig [beer] you want instead of staying thirsty.”

AGENT, FOCUS-GROUP DISCUSSION

This issue appears to be common when transacting large sums, especially when agents are not prepared.

“If an agent has a capital of RWF 100,000 (US\$113), yet there are customers who need to transact RWF 100,000 at once, then the work ends with one customer.”

Client, 28, Nyarugenge

One client in our Nyarugenge focus-group discussion mentioned that agents would only transact a large sum (such as RWF 100,000) for regular clients, suggesting that building a strong relationship with an agent may increase your chances of performing large transactions when needed. Pointing out that agents can lose money on large withdrawals, one agent notes:

Agent liquidity lapses appear to be driven by systemic issues, including commission incentive structures and timing of transactions, but also, occasionally, by agent misconduct.

“If we received a customer withdrawing millions of RWF [thousands of USD], we would all close our umbrellas and quit the business.”

AGENT, NGORORERO, FOCUS-GROUP DISCUSSION

“You see, if a customer came right now wanting to send someone in Kigali RWF 1 million (US\$1,129), I am sure that the agents here would combine their floats and get it done. However, it wouldn’t be the case if he wanted to withdraw the same amount. You know, we have been withdrawing money for other customers and we have received very few who deposit, so our floats could increase. So to complete the transaction, each agent would have to complete the transaction of the amount they could afford. As a result, the customer would lose, because we would have to split the transaction into like fifty parts. Otherwise, he would go back without performing the service.”

AGENT, NGORORERO, FOCUS-GROUP DISCUSSION

When asked how they deal with such an issue, 87 percent of clients report that they use a different agent, while 10 percent report that they wait and return to the same agent later. Among those who have experienced agents with insufficient e-float, 35 percent report having to change their schedule. If this issue happens with multiple agents, clients can be forced to transact smaller amounts with multiple agents until they reach the intended amount. This can result in a higher total fee. Thus some clients prefer to keep looking until they find a single agent with sufficient float:

As the “human face” of mobile money, agents are integral to the experience of clients and present both risks and opportunities for client protection.

“I once went to an agent to withdraw a certain amount but they said that they couldn’t provide it. I didn’t ask them to give me what they could provide. Instead I went to another one and got what I wanted.”

FEMALE CLIENT, 43, FARMER, NYARUGENGE

A street vendor describes how insufficient agent float led him to stop using one of his mobile money providers:

“Actually, I don’t trust X mobile money as much as Y mobile money. Once, I went to withdraw around RWF 50,000 (US\$56) from an X agent. He told me that it was a lot of money that he couldn’t get and sent me to another agent. This is what made me stop using it.”

MALE CLIENT, 32, STREET VENDOR

Another client, speaking in the client focus group discussion, describes how she trusts her agent to withdraw money from her account in town on her behalf when there is insufficient float. It is not clear whether she shares her PIN with the agent, but if so, clients may open themselves up to fraud while trying to cope.

“Sometimes [the agent] tells you that he cannot provide it at the moment but will go to town in the evening, so you give him your phone number and when he reaches there, you get the withdrawal message. He asks you to confirm the transaction request if you trust him and he will bring the money to you.”

FEMALE CLIENT, STUDENT, NYARUGENGE

SMART CAMPAIGN REACTION TO RESULTS

Insufficient agent liquidity or float directly affects a client’s ability to transact and access funds.²⁵ As a general principle, providers are responsible for ensuring that their agents operate according to good client protection practices. They must continuously work on improving liquidity management, such as repeating training, improving procedures, monitoring liquidity of agents, or providing credit to agents.²⁶

Transparency

Providers have an obligation to design user interfaces that are clear, simple, and secure. They should be able to demonstrate that their technology is designed to support clients in effective decision-making, especially when there are literacy concerns. This section delves into clients’ feedback and feelings on their mobile money interface, as well as on what information is disclosed to them and how.

Mobile Money User Interface

In general, across all three mobile money providers, most people report that the user interface is easy to use, but worry that it’s easy to make a mistake. Our quantitative survey shows that 69 percent of clients think that the mobile money user interface is good, and this does not appear to depend on the type of phone used (basic, feature, or smart). Although the unstructured supplementary service data (USSD)-based interface is

accessible on any phone, the smaller the screen, the longer it takes to scroll through menu options and the more difficult it is to see all options at once.²⁷ MTN and Airtel have options on each menu list to go back to the previous menu; Tigo does not. A Tigo client must close and reopen the interface if they wish to go back to a previous screen.

Many clients report that the interface is intuitive and straightforward, so they can learn by doing. One of these self-taught mobile money users says:

“You are basically taken through the process with instructions along the way to help you get to the next step on your way to complete a transaction. The instructions are clear enough for those who can read. I basically taught myself how to use the interface.”

CLIENT, TEACHER, HUYE

Other users require support. When these clients use a mobile money service for the first time, they commonly ask agents or friends for help. Some users report that it takes a while before they know how to perform mobile money transactions on their phone. One client reports feeling overwhelmed by the large number of menu options:

“I wanted to check my account balance. I pressed, followed some instructions but I ended up on the MoKash menu and I was presented with things that I didn't know. Since there were things I couldn't understand and the process was too long, I ran to my friend and she showed me what I needed to do.”

CLIENT, 41, FARMER, NYARUGENGE

The survey results do not show a relationship between the client's education and literacy and how much perceived or actual difficulty they have with the user interface. However, when asked whether they believe that the USSD interface is good or not overall, only 44 percent of illiterate clients responded positively, compared to 71 percent of literate clients. Many clients we interviewed expect that people who do not know how to read will find the user interface more difficult to use:

“It is hard for illiterate people to use a cell phone. Some succeed by memorizing the keyboard and its functions, but most know where to press when answering a phone call, basic functions. It is difficult for those who can't read to keep up with technology.”

FEMALE CLIENT, TEACHER, HUYE

Agents in the focus-group believed that the user interface is easy for clients to use, given that the client receives explanation upon registration. Agent play an important role in responding to the most frequent questions, such as how to access information and perform transactions:

“The common question that most of my customers ask when I register them is how they will access the services; they want to know the whole process of performing mobile money services. They are like, ‘How will I check my account balance? How will I...?’”

AGENT, NGORORERO, FOCUS-GROUP DISCUSSION

“The main reason [that clients think the interface is difficult to use] is because the customer didn't get enough explanations about it in the first place... when they registered. Otherwise, it would be very easy for them.”

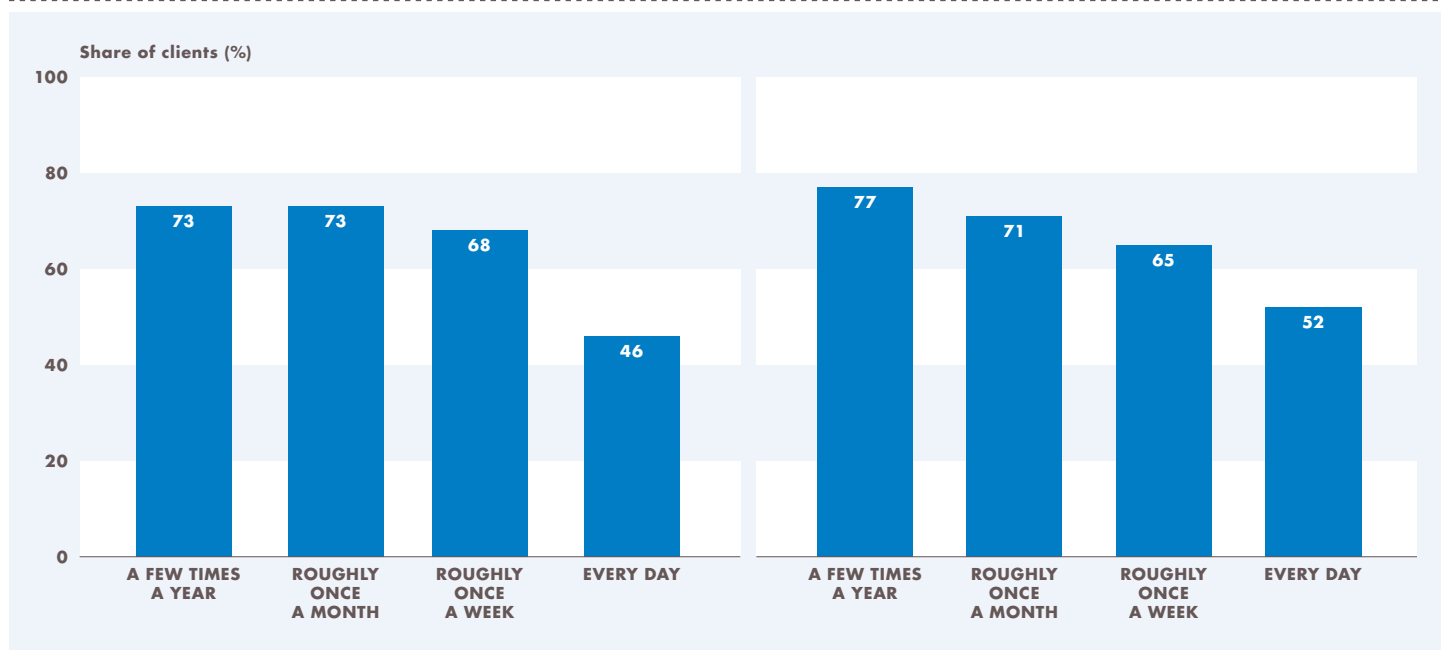
AGENT, NGORORERO, FOCUS-GROUP DISCUSSION

However, despite the positive feedback, 69 percent of clients believe it is easy to make a mistake and 17 percent have actually made a mistake. Rural and urban clients are equally likely to make mistaken transactions. Additionally, a quarter of the clients surveyed have experienced a failed mobile money transaction. Though most of these transaction failures result from network issues, 21 percent were reportedly due to a mistake by the agent, the sender, or recipient, such as a keystroke error. The more frequently clients use mobile money and interact with the same agent, the less likely they are to think it is easy to make a mistake with the interface.

Some clients feel that using the interface is a long process, which frustrates them and leads to rushing and making mistakes. Respondents reported that they have entered the wrong amount for a transaction. Similar

FIGURE 10

Share of clients who find it is easy to make a mistake with the user interface, by frequency of mobile money use (left) and frequency of interaction with mobile money agents (right)²⁸



mistakes occur entering the mobile phone number of the recipient or entering the meter number to purchase electricity. Although a recap of the transaction is displayed, including the recipient name and amount, before a client confirms the transaction, some report that they move through the options too quickly and confirm transactions by default.

Mistakes such as these can have significant consequences, such as a transaction benefiting someone other than the intended recipient or a client making a completely different transaction than intended. A saleswoman from Nyarugenge explains that, if she does not pay attention, she can make a mistake:

“I made a mistake while buying airtime. There are times when I make a mistake saying I am going to buy airtime on mobile money, but you see it’s like my ignorance, but I would write someone else’s number instead of mine.”

FEMALE CLIENT, SALESPERSON, NYARUGENGE

Other clients report accidentally choosing the wrong option from the USSD menu and making a different transaction from the one intended. The implications of choosing the wrong menu option may be farther-reaching if the service purchased by mistake is a completely different service. Respondents tend to blame only themselves for these mistakes, but half (50 percent) think that it’s easy to make a mistake and that the user interface could be improved.

Difficulties using the interface could also lead to overreliance on agents. A farmer from Nyarugenge discussed how it is difficult for her to perform mobile money transactions on her own mobile phone and how she relies on mobile money agents for help:

“For me it is hard, as I also don’t use mobile money very often and... I did not go to school. But I go to the agent and he checks the balance for me.”

FEMALE CLIENT, FARMER, NYARUGENGE

Asking others to complete transactions for them can mean opening themselves to the risk of fraud. One client said, regarding the length of the interface menu:

“Generally, those procedures must be involved to get the service; there is nothing to do about that. The problem is, older people don’t have time to look at every option presented. It is difficult for them to know that they have to press 1 for depositing or sending money, 2 for withdrawing, and 5 for checking the account information, and so on. They are too lazy to go through that process and therefore they ask others to do it for them, which is where some theft activities come from. You ask me to initiate a transaction for you and I memorize your PIN number.”

MALE CLIENT, 36, HUYE

Clients raised a specific concern with foreign languages in the interface. All three providers’ interfaces are available in both Kinyarwanda and English. Clients can select a language the first time they use the interface to access their account. This choice is saved but can be modified through the account settings option. Issues may occur if a client selects the wrong language to begin with. Respondents also reported that even after selecting Kinyarwanda, not all messages and options appear in Kinyarwanda.

“The problem is, the process involved is too long. In addition to that, the language used is not consistent. At some point, they mix languages... I am lucky that I understand all languages used but think about someone like my mother. How can they tell her something like “pay service” yet when she started the process, they asked her to choose between Kinyarwanda and English? They should be consistent with language: If the option is Kinyarwanda, then all content should be in Kinyarwanda. If the user chose English, then the content should be in English.”

FEMALE CLIENT, NYARUGENGE

Another client describes needing help to overcome the same issue:

“When I was paying the electricity bill, I would opt for completing the transaction in Kinyarwanda but would receive feedback in another language... [so] I asked for help from other people and I was able to perform my transaction.”

FEMALE CLIENT, NYARUGENGE

Fixing Mistakes

Roughly half the respondents who have made a mistaken transaction say that the transaction was successfully reversed. One states the possibility to reverse a mistaken transaction as a reason to prefer cashless methods to pay for goods and services:

“I can make the same mistake with electronic mode, too; for instance, I may send someone RWF 50,000 (\$56) instead of RWF 5,000 (US\$5.65), but at least I know that there is somewhere I could go to recover it. I believe if I reported that I made a mistake with a certain transaction, they would somehow find a way to cancel it and recover my money. With cash, however, that would not be possible.”

CLIENT, 36, CARPENTER, HUYE

Clients who have made mistakes with mobile money transactions report becoming more careful when they perform a transaction.

The farmer from Nyarugenge states how her experiences with mistaken transactions have affected the way she uses mobile money:

“I am a lot more careful now. I now double check before submitting numbers. At times I restart the whole process when I feel uncertain... I learned a lesson.”

She also suggests an improvement to the transaction process to help clients avoid making mistakes when buying electricity:

“It would be better to confirm the names and meter number before confirming the transaction, just like it is for the case of sending money. After entering all the

information, there is a message that shows information about the recipient names and phones, or if you are sending money through someone else's account, s/he may ask the names of recipient.”

There are, however, clients who believe that they cannot be reimbursed if they were personally responsible for a mistake:

“I revised the process and found out that it was me who made the mistake... I felt that the purchase had been executed and there was no way I could be refunded.”

FARMER, 36, NYARUGENGE

SMART CAMPAIGN REACTION TO RESULTS

Provider interfaces should provide step-by-step instructions in a major local language to help clients understand how to use the service and cover frequent issues.²⁹ Providers should also inform customers when there is an upcoming design change in the user interface, such as a new menu hierarchy. The Smart Campaign suggests giving customers advance notice, ideally fifteen to thirty days, before the change is made.³⁰ Providers also have an obligation to keep clients' funds safe and secure and minimize the risk of mistaken or incorrectly executed transactions. They should require confirmation of payment details before a transaction is completed to minimize the risk of mistaken and unauthorized transactions.³¹ Given the reliance on agents, providers should also deploy staff or agents to support users, providing explanations, troubleshooting, and assistance to first-time users and any user having difficulties.³²

Information Disclosure

To make informed decisions, clients should be informed about how to use the service as well as the terms, conditions, and fees prior to or at the time of registration. In Rwanda, this information is shared at various places, including agent locations, walk-in service centers, and call centers. The Smart Campaign believes that true transparency

goes beyond disclosure: providers should confirm that clients actually *understand* the information shared.

Many clients reported that they had received clear and complete information when registering for a mobile money account (Table 2). Still, not all respondents understand key information at registration. For example, 28 percent of account holders did not understand the fees and charges when they registered.

Lack of information is likely a precursor to many of the specific mobile money issues clients experienced, including mistaken transactions, fraud, and lack of recourse.

For example, account holders who say information was easily available and clear upon registration are 7 percent less likely to have experienced fraud and 8 percent more likely to have their complaints effectively handled. Harmful impacts that may result include financial loss, emotional stress, and a reduction in the use of services that could otherwise improve clients' financial health and save them time and money.

Certain types of users could be more at risk than others regarding lack of information.

In particular, illiterate clients are less likely to agree that information was easily available at registration—56 percent, compared to 81 percent among literate clients, and are slightly more likely to disagree that they understood the terms and conditions when registering: 24 percent, compared to 20 percent of literate clients.³³ We also find a gender difference in the share of clients reporting that they understood fees and terms and conditions when registering, with a smaller share of female clients reporting understanding; percentage differences are 14 percent for fees and 10 percent for terms and conditions.

Understanding Fees and Charges

One of clients' most common demands is a better understanding of mobile money fees and charges.

When they first registered for mobile money, 28 percent of clients report that they did not understand the fees, charges, and interest rates. Clients who don't understand the fees and charges when they are registering tend to have less trust in mobile money:

“Actually, I think that is what matters to most people. You want to know how much you will be charged for a transaction amount between RWF 1,000 (US\$1.13) and RWF 5,000 (US\$5.65) or RWF 5,000 and RWF 10,000 (US\$11.29). You wonder if charges are the same or differ depending on the amount; you then want to find out that information. I think that is all everyone wants to know.”

MALE CLIENT, 49, TEACHER, NGORORERO

“Before, you could be charged a transaction fee without receiving an SMS about how much you have been charged. However, now things have changed, and you can also see the transaction fee that you have been charged. There is no other way of checking that with my mobile phone; there is nowhere else to get information about charges. You only know after receiving the message with details about the transaction.”

FEMALE CLIENT, 39, FARMER, NGORORERO

When transacting without the assistance of an agent, clients report that fees are not displayed before a transaction is confirmed; they state that they see fees only upon receiving an SMS afterward. Nearly a third (31 percent) report being unclear about fees before making a transaction, and 27 percent report that they have been surprised by fees and charges while using mobile money. A farmer from Ngororero highlights the SMS confirmation of fees after the transaction as a positive development:

Some clients are also unclear about who is liable for a given charge (the sender, the receiver, or both):

“I am confused to how these services are charged. I still don’t understand how much I would add [to the transaction amount] if I wanted someone to receive exactly RWF 20,000 (US\$23), for instance. This is because I still don’t know whether we will both be charged or [if] it is only one of us that will pay charges.”

FEMALE CLIENT, 43, FARMER, NYARUGENGE

TABLE 2

Client opinions of information available at registration

STATEMENT	AGREE OR STRONGLY AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE OR STRONGLY DISAGREE
I understood all the services that were available	66%	4%	30%
I understood the fees, charges, and interest rates	68%	4%	28%
I understood the terms and conditions	74%	5%	21%
Information was easily available	83%	3%	14%
I understood that I might be liable for losses if I failed to protect my security credentials and/or safeguard access to my account	89%	1%	11%
I understood to keep my PIN secret and not share it	98%	0%	2%

It is worrisome that nearly one-third of account holders are not clear on mobile money fees—how much they are, when they are applied, or who pays for them.

“We find trouble understanding how the charges and fees are deducted. We barely understand what goes into setting those charges. Sometimes it is deducted, other times it is not deducted, so that leads to confusion.”

FEMALE CLIENT, TEACHER, HUYE

Qualitative interviews revealed that many clients receive agents’ fee information only while being served for each individual transaction. **The consequences of not knowing the fees in advance include transactions failing if the account balance is insufficient to cover the transaction fee, the receiver not receiving the required amount, or the sender sending more than required.** A construction worker describes the guesswork involved in transacting without an agent’s advice and the potential for spending unnecessary money:

“The agent tells me the charges. When he doesn’t, I just add more to what the receiver has to withdraw and if it’s a lot, he is lucky [laughing].”

MALE CLIENT, 32, NYARUGENGE

A client from Nyarugenge describes how she had to resort to cash:

“I was transacting money that I was supposed to contribute as asked by the Community Health Workers’ team.... I always make sure to add charges on the amount I am transacting. But this time, the charges were unexpectedly high and the recipient told me that the amount received was not full.... I blamed myself for not sending the right amount. You know, that transaction was not done by an agent. I did it

myself; the fault was only mine. Anyway, I had to send someone to hand him/her the rest of the amount.”

FEMALE CLIENT, NYARUGENGE

Understanding Terms and Conditions

Many people report that just being able to confirm that a transaction will go through or has gone through is enough information for them. Asked whether she inquired for information on fees, terms and conditions, and available services, a female teacher from Huye replied, “Not really, I don’t ask about it. I never find the time. I honestly wouldn’t find the time for this.”

Nonetheless, over 80 percent of clients report that if they do have a question about terms and conditions, they don’t know whether or how they can access this information on their phones. Clients who have attended school are more capable of checking on their phones if they have a question about terms and conditions (20 percent), compared to those who haven’t attended school (13 percent). Similarly, younger people are more likely to report that they can check terms and conditions using a phone; the median age among clients who report being able to do this is twenty-nine, compared to thirty-six among clients who report that they cannot.

Clients do not receive any documentation of terms and conditions. Our quantitative survey found that just 14 percent of clients had a copy of the terms and conditions document. Because of the very low penetration of documentation, we cannot assess how accessible existing terms and conditions are (for example, whether they are easy to understand and how long they are).

Agents and Disclosure

Agents are many clients' main source of information about mobile money and its various service offerings upon registration (58 percent).

A retailer from Nyarugenge describes how he relies on agents for information on fees after registration as well:

"I usually get such information from agents I go to. However, I am now used to these transaction fees. I know that I am charged this amount to carry out a transaction of a certain amount, unless there are changes, but I get to know them from agents I go to for services."

MALE CLIENT, 32, RETAILER, NYARUGENGE

Clients who report positive, more frequent interactions with agents also report a clearer understanding of fees and terms and conditions.

Clients who report that their agent takes time to answer their questions are 26 percentage points more likely to think that mobile money terms and conditions are easy to understand, and 22 percentage points more likely to report that they understood terms and conditions when registering. Further associations are shown in Table 3 and Table 4. Clients who report that they have seen fee documentation, terms and conditions, or codes of conduct displayed at their agent's place of work are 14 percentage points more likely to report understanding the fees before making

a transaction than those who have not, and 18 percentage points more likely to report understanding the terms and conditions at the time of registering.

Qualitative interviews suggest that clients may not always be motivated to ask agents for information beyond the immediate needs of each transaction. At the registration stage, most clients report only wanting to know whether the main services of sending and receiving money work:

"There was nowhere else I could have gotten the information besides from the agent who registered me. But he did not provide any. However, I think part of me didn't really care about it. I simply wanted to get the transactions I needed done. When I came to the agent, I only wanted to send money and withdraw what I received; that is all that mattered. The point is, I didn't put any effort into finding the information."

MALE CLIENT, CARPENTER, HUYE

Clients also report that time is a constraint when trying to ask agents for additional information. Agents tend to be busy, with many clients at once. Multiple clients suggested having dedicated salaried employees who are solely responsible for customer service, information dissemination, and capacity building. Although many clients report that agents refer them to a service center for

TABLE 3

Association between clients' understanding of fees and whether their agent has time to answer questions

DOES YOUR MOBILE MONEY AGENT TAKE THE TIME TO ANSWER YOUR QUESTIONS?	NO	YES
Share of clients who have been surprised about fees, charges, or interest rates after making a transaction	41%	28%
Share of clients who agree with the statement "I understood the fees, charges, and interest rates when I registered for a mobile money account"	49%	76%
Share of clients who are clear about fees before making a transaction	60%	74%

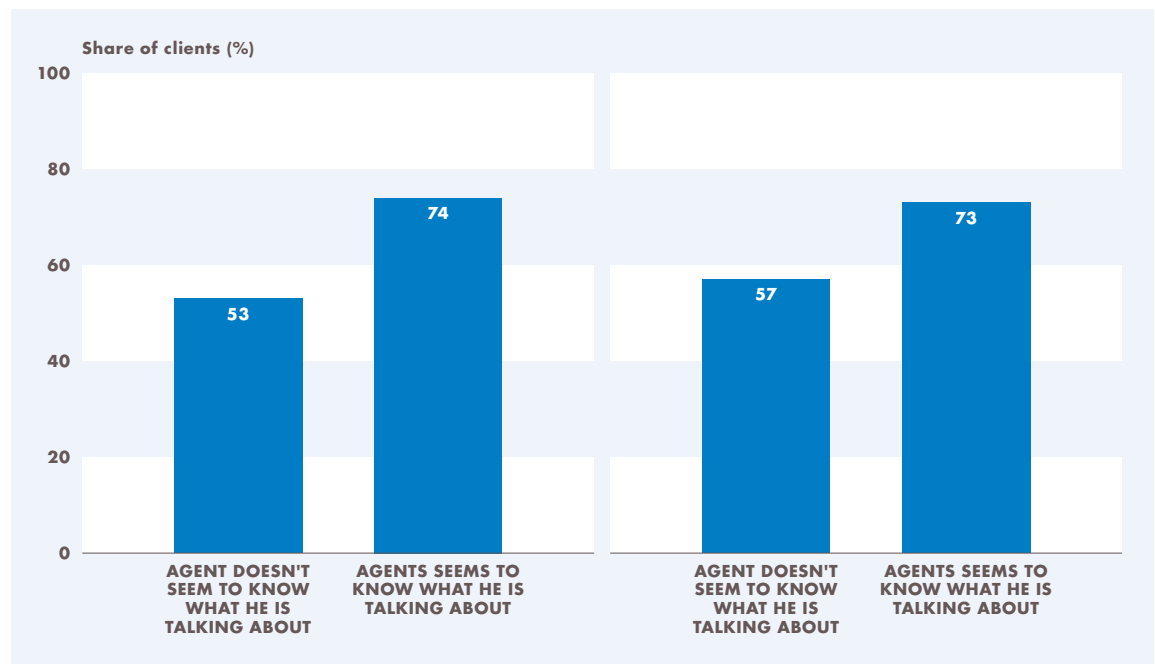
TABLE 4

Association between knowledge of fees and frequency of mobile money agent interaction

	A FEW TIMES A YEAR	ROUGHLY ONCE A MONTH	ROUGHLY ONCE A WEEK
Share of clients who have been surprised about fees, charges, or interest rates after making a transaction	36%	31%	27%
Share of clients who agree with the statement "I understood the fees, charges, and interest rates when I registered for a mobile money account"	43%	62%	66%
Share of clients who are clear about fees before making a transaction	62%	73%	75%

FIGURE 11

Share of clients who are clear on fees before a transaction (left) and who report understanding fees, charges, and interest rates at registration (right), by whether they feel their agent is knowledgeable about mobile money



this information, they rarely report finding the time or motivation to do so.

“Agents rarely have that much time on their hands, because they are constantly attending to other clients. He can only take you through the process when he is performing it, so unless you inquire about something specific, you can’t receive information you didn’t ask for... but at times you are lucky enough to catch one who isn’t attending to many clients, so you go ahead, ask for information, and you receive it.”

FEMALE CLIENT, 56, TEACHER, HUYE

Improvements in Transparency

In our focus group, agents admitted not presenting tariff documentation to all clients and only furnishing it when specifically asked. They cited the **logistical difficulties of operating in limited space**:

“You see, it is difficult for an agent who operates in an umbrella [kiosk] to provide such documents to everyone because there is nowhere to place it. For someone who operates in a shop, however, it is very easy because they could hang it on the wall and the customer would just read without having to ask for it.”

AGENT, FOCUS-GROUP DISCUSSION

Several agents feel the **need for training in more advanced mobile money services** to be able to improve client awareness as well as assistance.

“Another thing I want to add is that agents have little knowledge about these services too. You see, it would be very easy for a customer to memorize and start using a service after getting enough information from the agent. But the problem is, the agents are there in umbrellas [kiosks] to deposit, withdraw, and sell airtime only; that is as far as their knowledge goes. My point is, we need training.”

AGENT, FOCUS-GROUP DISCUSSION

“First of all, we need training... to provide enough and clear information to customers that come to us. Also, they should make sure to communicate to us about new changes or services. I mean, a customer may have noticed a new policy on a TV advert that I am not aware

of and if I perform a service in an uninformed way, it may cause problems with this customer.”

AGENT, FOCUS-GROUP DISCUSSION

“We should be provided with updates and new information on time. Sometimes I perform a service like sending money for a customer, thinking that the fee charged is RWF 200, only to realize that it is actually RWF 20 less. In this moment, the customer gets the impression that I am doing things that I don’t know. Therefore, I think getting information on time would make our job easier.”

AGENT, FOCUS-GROUP DISCUSSION

Many clients want a physical copy of their terms and conditions and list of transactions when registering. They suggest that service providers should be responsible for making sure customers have copies of the fees. During qualitative interviews, many clients believed they would retain such documents to check whenever needed. They also said that having a paper copy of the fees would allow them to know when an agent is overcharging them:

“The service provider should then be clear about the established charges and communicate them to all Rwandans so that if anyone was charged wrongly, they would know their rights and refuse to pay an unauthorized fee.”

MALE CLIENT, 49, TEACHER, NGORORERO

However, very few clients who report being given such documents still possess them.

Similarly, some clients who report seeing tariff flyers on display also reported not reading them. This suggests that access is not the only issue. Improving information disclosure will potentially need to focus on the actual utility of such documents and encourage clients to seek out information.

Furthermore, clients report that they may not know what information they need at registration, so they may not ask for or value it at the time. A retailer from Nyarugenge describes why he did not receive enough information at registration: “I think it is because I did not ask for a lot of explanations. I did not request such information, so they did not explain that to me.... I did not know that I needed all that information.”

SMART CAMPAIGN REACTION TO RESULTS

It is worrisome that close to one-third of account holders still did not understand the fees and charges after registration. This could lead to mistakes and errors and is further exacerbated by not displaying the fee on the handset before the transaction. Account registration is a crucial point in the customer journey for the provider to impart key details of the service and charges. At registration, all charges, including transaction fees, non-transaction-related fees (such as PIN replacement), and exceptional fees (off-net transactions, for example), must be explained.³⁴ All information should be presented in ways that the customers can be expected to comprehend, regardless of literacy. Providers may wish to use diagrams where feasible.

Much of this information should also be available on clients' handsets. Upon signing, clients should receive a completed, signed copy of the contract. For digital clients, once signed or agreed upon, the key facts sheet, agreement summary, and loan agreement are automatically stored in a client account directory that the client can keep and easily access anytime. This may be on a client's device or in hard copy, but internet links alone are not sufficient.³⁵

It is very concerning that clients transacting on their own cannot access fee information and are only notified after a transaction. Clients should not have to resort to overpaying as a hedge, nor should they have to experience a failed transaction because they did not know the fees. Financial capability research shows that individuals value information most when they are about to make a transaction—and providers should confirm fees and charges prior to the transaction itself, on the handset or through agent interaction. A client in the qualitative interview also suggested adding a set of choices to the user interface to display the fee for each service.

It is also concerning that a large majority of respondents said that they did not know

where on their phone to locate the answers to questions about their product or service. This leads to mistakes and overreliance on agents—who, while crucial in the process, should not be the only source of information. Clients should be able to access information and documentation about their product from the provider itself easily on their handset. Providers should respond to the finding that clients tend not to report being overcharged by agents to the MNOs, and MNOs should have more robust and easily available recourse mechanisms for this.

GSMA requires that providers notify customers of any changes to terms and conditions or fee schedules before these take effect, with an appropriate notice period. The notification should be pushed to customers (for example, in the form of an SMS or mobile app notification). Materials should be updated at agents and retail outlets where appropriate, and training and communication with agents regarding the change are crucial to minimize confusion.

Agents should have documentation accessible that lists all fees, terms, taxes and cancellation conditions for any payment service they provide (such as money transfers, bill payments, airtime top-up, and deposit withdrawal). MNOs should take measures to prevent agents miscommunicating with customers and ensure that agents provide clear, sufficient, and timely information in a manner and language that customers understand and help them make informed decisions. Transparency includes information on pricing, terms, and conditions of all products. Agents should be well trained and provided with materials on product terms and conditions. We recognize that such training can be expensive, and suggest leveraging e-learning technology through web-based and online portals. The agent network manager should have adequate monitoring mechanisms to enforce the transparency policy and sanction violators.³⁶

Fraud

Fraud is not unique to mobile money but, compared to microfinance,³⁷ there are new dynamics at play. These include less face-to-face interaction between clients and providers, less interaction between provider agents and management, a greater onus on the client to conduct transactions unassisted or with less assistance, and a wider network of entry points for fraudsters and scammers to gain access to clients' data.

Evolution of Fraud and Awareness

Many clients are aware of mobile money fraud and have either experienced it themselves or know others who have. In the quantitative survey, 39 percent of clients perceive mobile money fraud to be a big problem and 10 percent report being defrauded themselves.

The most common types of fraud facing the mobile money sector in Rwanda are scam phone calls and scam SMS. Fraudsters tell clients that they have won a lottery or some other kind of giveaway, or pretend to be a friend with a financial emergency.

It is becoming easier for clients to recognize some of these calls as scams. Multiple clients report hearing stories of other people's experiences on the radio or from friends and family. Some also report being informed by MNOs, through SMS, of the risk of fraud and how to avoid it. Some were able to identify that a given call was a scam and thus did not fall victim to it. They reported that they recognized similarities in the scam call they received to scams they had heard about through media and through peers.

“One day, this person with a Burundian accent called and told me that I won a lottery. I was confused about the type of lottery I won but he said that I don't have to know, that the only thing I needed to know was that I won 5 million. Then he went on and asked me to initiate a transaction of RWF 5,000 (US\$5.65)

and enter my PIN number to complete it. I said that I didn't have RWF 5,000 but it was only because I already knew that it was a scam. I have heard and seen such cases before, so I wasn't going to get fooled. But you understand that if it was someone who didn't know that such things happen, they could have been excited about 5 million and immediately sent RWF 5,000.”

MALE CLIENT, NGORORERO

Scams are always evolving and finding new ways to exploit people's trust. One client reported that the perpetrator of the scam they fell victim to had claimed to be part of the Girinka “One Cow per Poor Family” program and mentioned the involvement of the First Lady of Rwanda, Jeannette Kagame, as a way to gain the client's trust; the victim trusted that no one would use the name falsely and sent the money.

Nature of Fraud

In addition to scam calls and SMS, other reported frauds include agents deliberately sending money to a different number than requested and fraudulently using a client's PIN to send or withdraw money. Scams tend to start with a phone call where the victims are told that they will receive a certain amount of money and that they need to send a sum to another number, either to confirm their winnings or to help with a financial emergency. At this point, the victim usually receives a fake SMS confirming that money has indeed reached their account. These closely resemble the real confirmation SMS from providers. In many cases, victims discover that no money has entered their accounts after they send the requested sum to the fraudulent number. In some cases, victims are conned into sharing their PIN and perpetrators withdraw money from their account. Clients suspect that, in cases where perpetrators steal their PIN, a complicit agent is on hand to withdraw the money as quickly as possible:

“I am telling you, those people are serious. They call with your contact information and they even know your plot number. For instance, they may call saying, “We are from Kibungo and your plot here with this number is.... We are asking you to deposit RWF 98,000 (US\$87) on this mobile money account and in return, you are getting another plot worth 6 million.”

CLIENT, 36, DOCTOR, NYARUGENGE

When fraudsters appear to have access to personal information regarding mobile money accounts, clients suspect that they are MNO employees, which leads them to worry about the security of their information. Additionally, those using the prize/giveaway story often pretend to be MNO employees, further playing on client insecurities.

“They call you by your full name and then they mention your family member. They say, ‘This relative of yours died in the hospital and we have no financial ability to check him out. So here is the number we are using to contribute money.’ With that, you are convinced that they know you.”

CLIENT, 29, NYARUGENGE

“Sometimes you receive a call from someone claiming that they know you, and they even go on saying that they work for the MNO. When they say your name correctly and you know that you have never met them, you assume that they are telling the truth. In most cases, they say that you have won a prize of a huge amount of money. Anyway, I know it is not MNO employees that do this, but some people who pretend to be ones.”

FEMALE CLIENT, 41, FARMER, NYARUGENGE

“When he called, he said my full name and even my ID number and it made me wonder how he managed to get to that kind of information.”

FEMALE CLIENT, FARMER, NGORORERO

Others believe that this **information could come from scammers misusing the mobile money interface**. When somebody enters a phone number into the mobile money interface to make a transaction, their name is displayed on the screen to reduce the likelihood of mistaken transactions. Through this system, clients can find out whether a phone number is registered to a mobile money account and, if so, the name of the account holder. However, an unintended consequence is the potential for nuisance callers or scammers to misuse this information.

Overcharging

Clients’ reliance on agents for information about fees naturally leaves them vulnerable to overcharging. Clients report agents giving conflicting information, especially regarding fees when sending and receiving money; few clients appear to have clear strategies for deciding whether information given by agents was true or not and what recourse they might have.

“Sometimes we are told to pay RWF 200 (US\$0.23) for a transaction amount between RWF 2,000 and RWF 3,000 (US\$2.26 and US\$3.39) and other times, we pay RWF 250 (US\$0.28). We have no idea which is which.”

MALE CLIENT, TEACHER AND FARMER, NGORORERO

This confusion does not appear to be specific to sending and receiving. A client describes a personal experience relating to inconsistencies in deposit fees:

“So, when I reached to the first place to put money on my phone, they told me that it cannot be possible to put RWF 500 (US\$0.56) on my account. So, I start asking myself, how much can someone deposit on his/her [account]?... I went to another place.... They accepted it. Yes, they accepted, I went home and I used my service, but with the feeling that the first agent refused to help while they all offer the same services and use the same interface.”

MALE CLIENT, 38, NYARUGENGE

Clients report agents giving conflicting information, especially regarding fees when sending and receiving money. Few clients appear to have clear strategies for determining whether agent-provided information was true or not and what recourse they might have.

Although clients can easily identify instances of overcharging by agents who operate in the same locations, our findings suggest that clients are less clear on whether they should expect charges to differ between agents who operate in different locations.

Some clients report that, when questioned, agents explain fee differences by quoting the difference in transport costs to keep their e-float topped up. It appears that some agents in more remote locations try to recoup this additional operating cost from their clients by adding their own charges to services. These additional “unofficial” charges may make accessing mobile money prohibitive to clients in remote areas. While discussing these cases, clients requested that service providers make it clear to all customers and agents that transaction fees are set and cannot be adjusted by individual agents.

“When you ask an agent to transfer a given [sum of] money, like RWF 100,000 (US\$113), he tells you that you need to add on RWF 3,000 (US\$3.39) [but] another agent tells you RWF 4,000 (US\$4.42). When you ask him the reason for that difference, he tells you that he acquires the service from very far, so he can’t sell it at the same price as the other agent who acquires it from near.”

MALE CLIENT, 27, MOTORBIKE-TAXI DRIVER, HUYE

A client from Ngororero describes the negative impacts he suffered due to overcharging:

“I have a child studying in a school from Rutsiro and I often send them money. The agent at their school charges a hundred more to what I usually pay when withdrawing money but because they have no other choice, they pay it. But it affects me because I have to add more on the amount I send to ensure that the child receives what they need.... It upsets me because I couldn’t send the amount I planned to give my child. Would it make you happy knowing that you are paying more than what others pay and it is affecting your child?”

[Interviewer]: Why didn’t you report it?

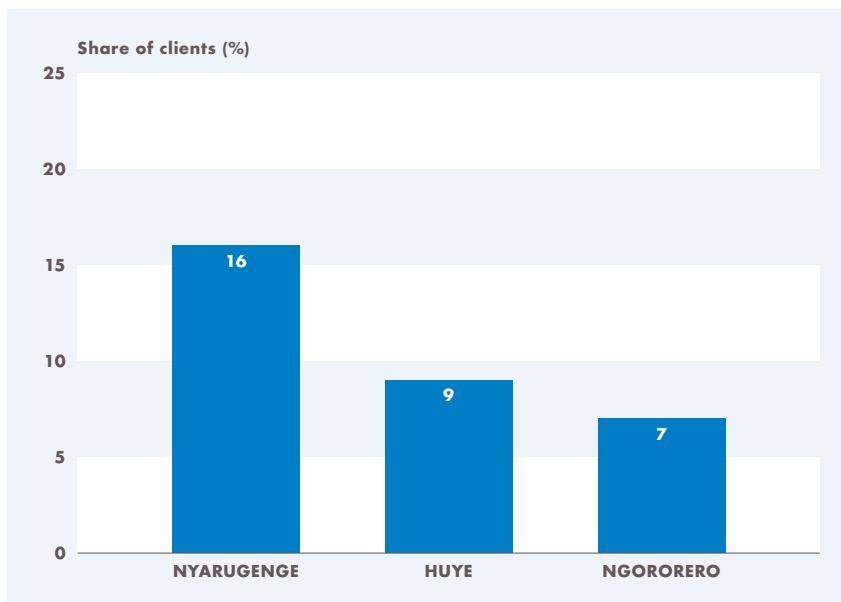
[Client] Who was I supposed to tell? This is not something you report, you just accept it... I lost trust in that agent. I wonder how people would even be able to notice that the agent is dishonest; the agent tells the customer verbally what they will be charged to withdraw and there is no way of confirming whether he charged wrongly even if they checked the transaction records.”

Additional Mistreatment: Blocking SIM Cards

One area where agents can misuse their power is blocking SIM cards. A farmer from Nyarugenge described an experience where her account was blocked after an interaction with an agent. She explained that this situation has not been resolved even after a year; in the meantime, she purchased another SIM card and registered with mobile money again:

FIGURE 12

Share of clients who have been a victim of fraud, by district



“One day an agent blocked my PIN number when sending money on my account. I still had the message received from the agent and I reported to the service center in Nyabugogo. They said that this particular agent was the cause of the issue and they were the one to resolve it. They even gave me their name, although I don’t remember it. Anyway, I called and asked them why they blocked my PIN number. I had to explain how we met and the transaction they performed for me. After few minutes, they called and told me that the issue was solved and that I could come to finalize it. I returned to Nyabugogo, but I found that the issue was still unsolved.... People kept sending money on that account and I think the balance is now around 20,000 plus.”

FEMALE CLIENT, FARMER, NYARUGENGE

Susceptibility to Fraud

Our data reveal fraud to be slightly more common in Kigali than in rural areas. Clients in Nyarugenge district are 7 percentage points more likely to fall victim to fraud than in Huye district and 9 percentage points more likely than in Ngororero district (Figure 12). This may be due to fraud perpetrators deliberately targeting wealthier clients from Kigali.

Men are more likely than women to perceive fraud to be a big problem, at 47 percent and 33 percent respectively. However, we find no gender difference in the incidence of falling victim to fraud. Some clients tend to feel that older clients are more vulnerable, but we don’t find evidence of that in our quantitative survey. One client describes being defrauded by agents:

“Those children [agents] would take you as an old person and tell you to give them your number. They give you a phone now and you write it yourself. There are times when they would tell you to tell them your number and they would send money to themselves or send it to someone else and then show you that you gave them a wrong number, and you couldn’t even argue.”

FEMALE CLIENT, 55, NYARUGENGE

A common theme among clients who experienced fraud is that it happened when they were in a rush and did not have time to think:

“It was my fault, I was in a rush and didn’t take time to analyze the message. I didn’t even bother to open it.”

CLIENT, TEACHER, HUYE

Similarly, another client describes being in a rush when she received a scam phone call from someone impersonating a friend:

“She called and greeted me and told me that her child was sent back from school as she didn’t pay school fees, then she asked me if I could lend her some money so that her child could go back to school, that she could pay me back as soon as possible. I thought that it was exactly the same person I knew.... While the agent was processing the transaction, I received a message from that number with the same amount as the one I was sending, and because I was in a hurry, I didn’t bother to check my account. Then, after sending, the agent told me that my account was empty, that I received a scam message and that the caller did not send any money. I also double-checked my account and there was nothing received. The agent told me that fraudsters used that technique in those days [and] that a few days ago there was another lady who was cheated like me and lost RWF 80,000 (US\$90). So the agent insisted that I must pay him the RWF 40,000 (US\$45) that he sent, and I had no other choice.”

FEMALE CLIENT, NYARUGENGE

A teacher describes how money was withdrawn from his mobile money account without his permission:

“I received a message that I had just withdrawn an amount well above RWF 20,000 (US\$23). Then I made a call to the only other person who knows the secret passcode I use when making transfers, who then denied ever making a transfer that day. I didn’t know where else to turn. I couldn’t go to an agent. He would have asked to see the message, which would have only confirmed that I had made the transfer. I had no idea what to do. I then decided to change my secret passcode, because whoever made the transfer would have needed to use the passcode. I have not had any more trouble since then.”

MALE CLIENT, TEACHER, HUYE

Consequences of Fraud

Clients who described their personal experiences of falling victim to fraud in our qualitative interviews had suffered financial losses varying from 3,500 RWF (US\$3.95) to 75,000 RWF (US\$85). Clients are understandably

After falling victim to fraud, very few clients abandon or reduce usage of mobile money. Instead, most learn to recognize scams, transact more carefully, and change their PIN more frequently.

distressed by financial loss and describe the negative impact when money they had plans for was wasted. Non-financial consequences of fraud included emotional distress.

“People saw me talking to myself, angry, and they asked what happened. Then I said that the agent almost stole my money. I abused him verbally, but he stayed quiet.”

FEMALE CLIENT, 41, FARMER, NYARUGENGE

“You see, it makes you sad. You think about the time you wasted and that loss that just happened to you. If you were sending the money to pay for something, it is a waste.”

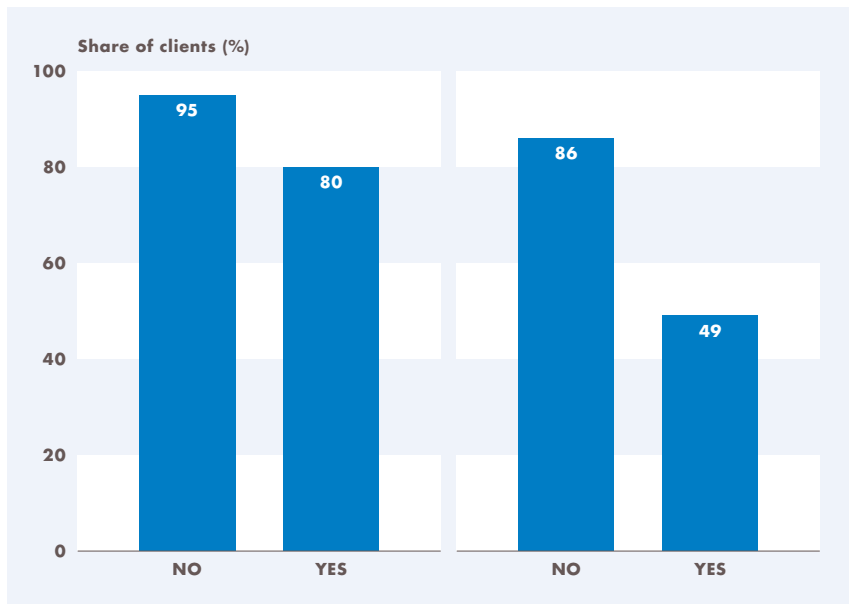
FEMALE CLIENT, 39, SALESPERSON, NYARUGENGE

Our results show that clients who have experienced fraud have less trust in mobile money (a 15 percentage point difference) and mobile money agents (a 37 percentage point difference) than clients who have not (Figure 13). Qualitative interviews confirm that people lose trust in mobile money after being defrauded. A few clients report that they deposit less in their accounts since falling victim to fraud, but many continue to use the service the same as before. Many clients have learned to recognize scam calls and SMS, to take more time over transactions, and to change their PIN if they feel it is not secure. When asked if these experiences changed how she makes transactions, a client who had been victim to fraud explained:

Customers report wising up to scams and fraud, but with a continuous influx of new mobile money users and fraudsters who innovate quickly, the threat is real and constant. Fraud can be catastrophic, especially to already vulnerable clients; more than anything else in this report, it can damage their trust and engagement with mobile money.

FIGURE 13

Share of clients who trust mobile money (left) and mobile money agents (right), by whether they have ever been a victim of fraud



“Now I am too keen and too careful especially before sending money and I check or ask them before I leave the agent and ask how much they received or if it is me receiving, I inform the person that I received it and the amount.”

FEMALE CLIENT

Reporting Fraud

It is common for clients to report speaking to peers about their experience, both to raise awareness and to cope with their stressful experience. **In the qualitative interviews, many clients who experienced fraud did not report it to anyone other than their peers.** In the survey, 35 percent of clients who had been defrauded had reported it to the MNO or the police, but 51 percent of clients who had been defrauded did not know how to report it. Another 19 percent of clients who had been defrauded knew how to report it but still did not. Many clients cite lack of time and money for transport as a reason for not reporting fraud.

“I didn’t bother to go to the service center to report it because I would have had to spend transport costs and for nothing. What I did was to talk to my peers about what happened to me, so that if anything like that ever happens to them, they will know that it is attempted fraud. I just shared the information with my people and let the case go.”

MALE CLIENT, CARPENTER, HUYE

Some clients report scams to the service provider through walk-in service centers or telephone call centers, but are put off from pursuing further recourse when told that they have to report the incident to the police. Clients in this situation report that they did not want to waste time in a long process and, in some cases, they feel this would cause trouble. A teacher from Huye explains what happened when she reported being a victim of fraud to the service provider:

“I didn’t go to the police. It would have been a waste of time on my part.... I only called the MTN call center. They took me through the history of transactions I had made, how much was withdrawn from the account, but they couldn’t tell who withdrew it.... I was told to follow it up with the police, but I didn’t. It would have dragged on for longer, and I would have been spending more money on transport, trips back and forth. We live in a very remote area, so that would mean a lot of money spent on transport, so I just let it go.... Now whenever I receive a message, I take time to read and analyze it. I no longer rush to make transactions.”

FEMALE CLIENT, TEACHER, HUYE

Clients tend to not report being overcharged by agents to the MNOs. In fact, none of the clients we interviewed had done so. When asked why, some clients appeared perplexed, suggesting they require more information about how and whether they can report such an experience. The most common course of action for clients who had been overcharged or suspected an agent of overcharging them was to stop using that agent. Of course, this strategy is only possible for those clients who have a choice of agents or time to pursue multiple agents to compare charges. For more than half of mobile money users, the nearest agent is more than 10 minutes walking distance from their home—and more than 30 minutes for 19 percent of mobile money users.

“Actually, there are many agents there, and when one of them tells you something and you feel like you are not satisfied, you walk over to another one next. After confirming what they said, you then make the transaction. But sometimes I just don’t have time to do that and I accept whatever the agent nearby says.”

FEMALE CLIENT, 44, HOMEMAKER, NYARUGENGE

SMART CAMPAIGN REACTION TO RESULTS

The two primary forms of fraud our respondents experienced appeared to be consumer-driven and agent-driven. Customers report wising up to scams and fraud, but with a continuous influx of new mobile money users and fraudsters who innovate quickly, the threat is real and constant. Fraud can be catastrophic, especially to already vulnerable clients; more than anything else in this report, it can damage their trust and engagement with mobile money.

Providers should, of course, have zero tolerance for any form of corruption on the part of their management, staff or agents, including fraud, kickbacks, and favors (requested or demanded) from clients.³⁸ Monitoring agents and having a robust complaints mechanism to record, investigate, and resolve potential fraud among agents is paramount.

Providers should also regularly run information campaigns to inform customers of the latest fraud threats (such as identity theft or unsolicited offers). They should provide toll-free contact details for loss of handset/SIM or to report potentially fraudulent activity and must notify customers of suspicious activity on their account. GSMA recommends that customers confirm before leaving the agent that (for deposits) the account balance includes the full amount that they have deposited (less any authorized fees) or (for withdrawals) that they have the correct amount of cash, the notes appear genuine, and the remaining account balance is correct.

Privacy

The confidentiality of a mobile money client's information is a right that protects privacy. Privacy of personal financial information is particularly important because it helps to prevent theft and fraud. The increasing complexity of the technology used to manage client data creates a particular challenge for financial service providers. This section presents clients' knowledge and perceptions regarding the safety and security of their data.

The majority of survey respondents (72 percent) did not have a clear understanding of what data MNOs collect about them. When asked what data they think is collected by MNOs, 36 percent of the clients responded to believe that no data is collected. A similar portion (34 percent) believe that MNOs collect personal identification details. Clients also report thinking that MNOs collect data on the client's location (14 percent) and that the contents of SMS and recordings of voice calls are collected (14 percent).

Clients who believe they know what data MNOs can collect tend to have higher educational attainment. This is also a more common belief among clients in urban areas, 14 percentage points higher than those in rural areas.

In addition, most clients—65 percent—believe that their data is safe. Even among those who report distrusting mobile money, 69 percent believe that their data is safe. Concern about data collection is more commonly found among clients who have attended school (10 percent) compared to those who had not (2 percent). Male clients (13 percent) also tended to be more concerned about the data collected compared to female clients (6 percent). However, a somewhat similar proportion of male and female clients believe that their data is safe: 70 percent and 62 percent, respectively.

Respondents concerned about their personal data elaborated in interviews. They feel their phone numbers and names have been misused, because after registering they were contacted and solicited. A client working in retail sales in Nyarugenge reports that strangers have

called and wasted her time; she believes they obtained her name and phone number using her mobile money information.

“A person might call you. For example, my name is A, so they are like, ‘How are you, A? How are you doing, A?’ I say I am okay. And you talk to them like you know them, but even when you don't know them, they have wasted your time. Mobile money... exposes you or reveals your secrets when you register your SIM card. If there was a way that was more private than that, I would prefer it.”

FEMALE CLIENT, SALESPERSON, NYARUGENGE

Encouragingly, almost all clients are aware of the necessity of PIN nondisclosure and security; 97 percent report that they understood the need to keep their PIN secret when they registered. Similarly, 88 percent of clients report understanding that they might be liable for losses if they fail to protect security credentials and safeguard access to their account. In our interviews, many clients report agents telling them the importance of PIN safety during registration. Some also report receiving reminder messages from providers specifically on the importance of PIN nondisclosure and account security. Agents can further help clients maintain their privacy by prioritizing certain best practices.

“To eliminate doubts from customers that I may steal their money, I always help them change the PIN number and create their own [after registering them].”

AGENT, FOCUS-GROUP DISCUSSION

It's worth noting that security measures, such as providers blocking accounts after a client repeatedly enters an incorrect PIN, can have unintended consequences. This is a measure to protect against fraud; however, some clients find it difficult to resolve the issue when they have mistaken the PIN themselves. A farmer from Ngororero describes how she was able to resolve this situation with help from an agent:

“You see, I went to the agent to withdraw money but I couldn’t recall my PIN number. I tried many times but I was mistaken about one digit. Consequently, MTN blocked it and the agent had to call them to explain the problem. Fortunately, they changed the PIN for me and I was able to perform the transaction.... I was confident at first but when they blocked my account, I lost hope. However, the agent assured me that it might be resolved and even if it doesn’t, I will somehow pay some charges in order to withdraw. Thankfully, the issue was resolved and I didn’t have to pay additional charges.”

Rwandan mobile money users are far from the only consumers unaware of what data is being collected on them. Even when providers have privacy policies that disclose what is being collected, they may not be comprehensive.

SMART CAMPAIGN REACTION TO RESULTS

Rwandan mobile money users are far from the only consumers unaware of what data is being collected on them. Even when providers have privacy policies that disclose what is being collected, they may not be comprehensive. CFI researcher Patrick Traynor analyzed the privacy and security policies of roughly thirty digital finance providers and found concerning mismatches. For instance, 72 percent of the apps requested access to a user’s contacts when there was nothing in their privacy policies outlining their use of this access. In addition, almost 10 percent of providers were accessing users’ phones’ “microphone” (9.4 percent), “device and app history” (15.6 percent), and camera (56.3 percent), none of which was discussed in the privacy policy.³⁹

Providers must align their privacy policies with the actual data they collect on customers, as well as include information on what that data is being used for. Clients must be asked to consent to specific uses of their data. Consent requests explain clearly, in simple, local language, how data will be used. Separate consent is required for: a) sharing with specific third parties

(to be clearly identified) as part of service provision; b) reporting to credit bureaus; c) use of data for marketing; d) sales to third parties; and e) use of geolocation data. For services delivered through USSD or SMS, internet links to disclosure statements are not sufficient.⁴⁰

Staff must proactively inform and sensitize clients about the importance of protecting their PINs and show them how to do so, including through public campaigns. Customers should be instructed on how to input security credentials properly and informed of the impact of incorrectly inputting security credentials (for example, after four attempts, sending a message that next time a wrong credential is entered, the account will be locked).⁴¹ Providers should also advise customers on how to be careful when conducting cash-in or cash-out transactions at agent locations.

A challenge will be continuous education of clients on the importance of the privacy of their personal information and its correlation with fraud. There is a mismatch with respondents’ low level of concern about the privacy of their data with their willingness to share accounts (12 percent).

Client Recourse

Dissatisfied clients and their complaints are an inevitable part of business, and providers should address these problems effectively. Complaints are also an opportunity to gain valuable feedback from clients to enhance and strengthen operations and product offerings. This section discusses clients' understanding and usage of mobile money recourse systems.

We found that 27 percent of clients have had to complain about service in the past, with close to 70 percent knowing how and what channels to use to complain. As Figure 14 shows below, most complaints arise out of services

not working (27 percent) and transaction failures (25 percent). Other common complaints are about bad customer service, fraudulent behavior, or other undesirable agent behavior.

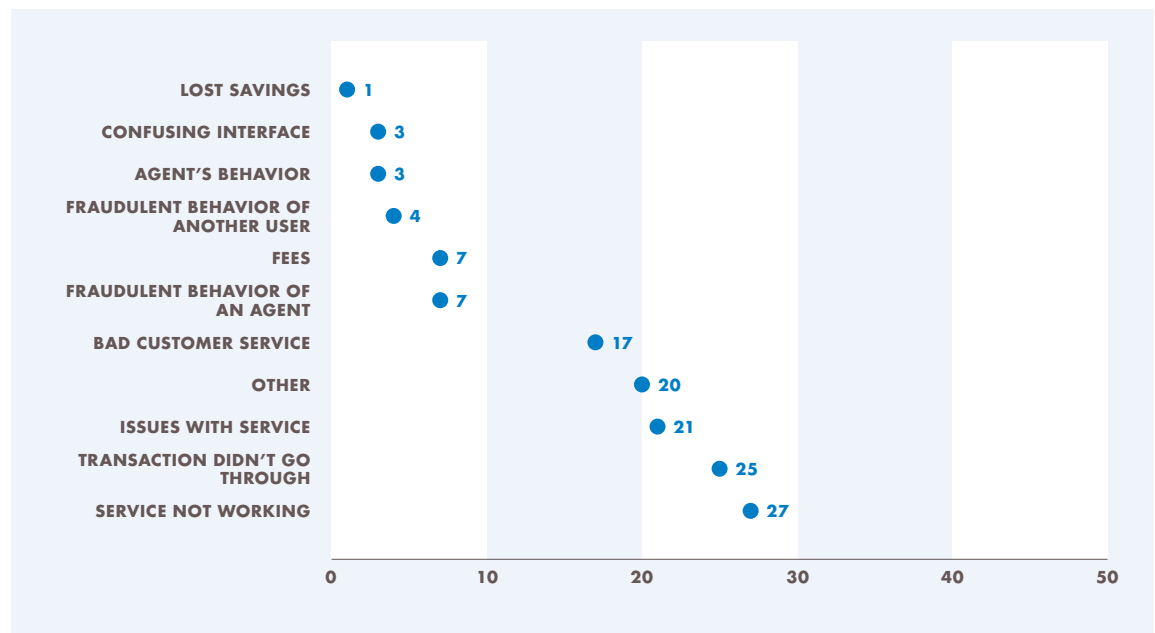
Recourse Systems

About 60 percent of current and former clients who have had complaints usually call the service provider or agent and the remaining 40 percent see them in person.

Especially in regions with lower penetration of service centers and mobile money agents, like Ngororero District, most complaints are reported over the phone.

FIGURE 14

Share of clients who have complained, by issue



Service centers and call centers are difficult to reach by phone, and respondents indicate that responsiveness is low. Clients report having to call multiple times or asking agents for help calling to a service center:

“I usually call the hotline as soon as I get the slightest network, the number jotted down on sim pack, and I contact headquarters, if I am lucky my call gets picked on the second try. You never get picked on the first try.”

MALE CLIENT, 24, TEACHER, HUYE

However, despite multiple attempts to reach a customer service agent, about 80 percent of current and former clients report channeling their complaints to service centers at least once, which was effective at resolving the issue 85 percent of the time.

Agents

Mobile money agents play a key role in clients’ understanding of recourse mechanisms.

Clients who regularly interact with agents are more likely to have such information. Agent engagement includes taking time to answer clients’ questions, telling clients where to complain, and updating clients on changes in terms and conditions, pricing, codes of conduct, etc. Clients who understood mobile money fees, terms and conditions and liabilities upon registration are more likely to understand where to complain. A teacher from Huye explains how she informed herself of recourse mechanisms: “I asked about what my next recourse should be if I ever forgot my secret password, if indeed it was possible to apply for a new secret password, which they affirmed. They told me in detail what my recourse should be if I ever found myself in that situation.”

Some agents feel they can help clients better if MNOs trust them to take on more services to assist clients in the absence of nearby service centers. For example, agents are not authorized to carry out SIM swaps for accounts

with balances over RWF 5,000 (US\$5.65) or fix forgotten PINs and accounts blocked for client protection purposes. This reveals that might be a tradeoff between speedier conflict resolution and fraud protection.

Empowered to Complain

About 88 percent of past and current clients report being confident complaining about mobile money services if they need to.

There is no significant difference between geographic areas, despite inherently higher volumes of mobile money transactions (and therefore more experienced clients) in urban areas. Furthermore, clients who have recently used mobile money to make a transaction are more confident they can complain if needed. Clients who are not satisfied with mobile money services are more confident to complain than clients who report a higher level of satisfaction. A farmer from Huye explains how his trust in MTN is related to recourse:

“You can make a mistake in sending money, but when you do an immediate follow-up, the money is recovered. This is the reason I trust it the most. Sometimes there are agents who are thieves, but when such a case happens and you do an immediate follow-up and go to a service center, your money is recovered immediately.”

MALE CLIENT, FARMER, HUYE

Overall, as stated earlier, about 27 percent of clients report complaining about a service in the past.

Clients from urban areas are more likely to complain. This may be because, as mentioned, rural clients are less likely to understand where to complain. Also, the greater distance to points of recourse and perceived barriers to complaining in rural areas may contribute to a lower complaint rate. Clients who do not like cashless transactions are less likely to complain, possibly because they perform fewer mobile money transactions.

The majority of clients who have ever complained believe that most complaints are resolved, but 15 percent of clients who have complained in the past believe that complaints are never resolved. Complaints that were significantly less likely to be resolved concerned customer care and agent fraud. This may be due to clients' reliance on agents and service centers for recourse.

A 45-year old farmer in Nyarugenge gives an example of an unresolved issue she experienced: her account was blocked after entering the wrong PIN multiple times. To date, a year later, the account has not been unblocked successfully, resulting in the client's inability to access the funds in the account:

“Eventually, I went to withdraw but they said that my PIN was blocked.... The agent told me that I had to go to the service center because they couldn't do it.... However, they did call the service center and tried to explain my issue.... They told them to send me to the service center and I went.... [The employee at the service center] later told me that she solved it, but when I returned, I found that nothing changed, so they told me to call her again. I had plans to leave the country, and when I went the issue was not yet resolved. People kept sending money on that account and I think the balance is now around RWF 20,000 (US\$23) plus.”

FEMALE CLIENT, 45, FARMER, NYARUGENGE

A respondent from Huye explains how he lost trust in mobile money and now prefers to use banks due to an issue he experienced:

“This [high level of trust in banks] is unlike MNO 1 or MNO 2, which I don't trust 100 percent. I will tell you why I don't trust these services. Let us say I had a certain amount on my mobile money account but then I lose my account. When I eventually go for SIM swap and ask to recover my money, they say

that I have to travel all the way to Kigali to get it. Sometimes they even say that it is not possible to recover it. I am saying this from experience, you know.... I don't remember well the year it happened, but it was around 2015. I lost my MNO 1 SIM card and I had RWF 5,000 (US\$5.65) on my account. When I went for SIM swap and demanded that they also recover my money, they said that I needed to go to the main office in Kigali to do that. I realized that it would be my loss to incur transport costs to Kigali to get RWF 5,000, so I let it go. Since then, I have never thought about using MNO 1 Mobile Money services again.”

MALE CLIENT, HUYE

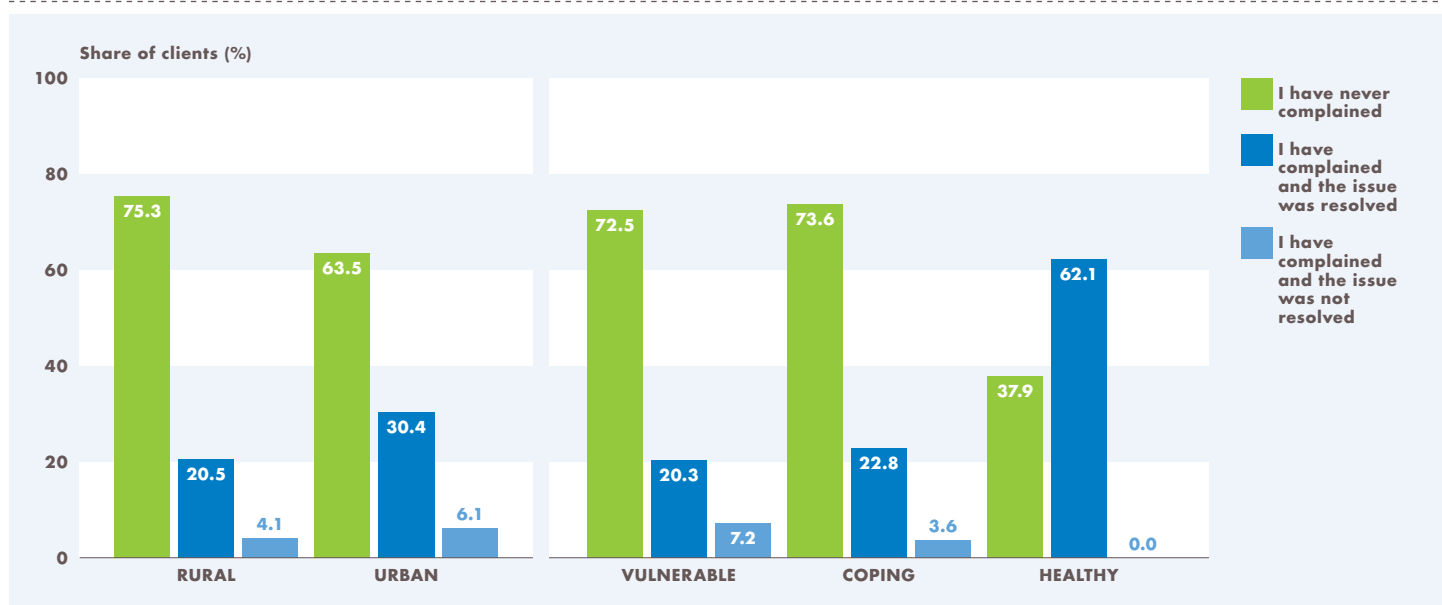
Losing a SIM card or having it blocked should not result in a loss of mobile money on the linked account. The recourse for a lost or stolen SIM card is to conduct a SIM swap, whereby the client purchases a new SIM card from the provider, which is then loaded with the same phone number and data as their lost or stolen PIN—including their mobile money balance. Many clients report that the SIM swap service has made life easier, as they no longer have to worry about what might happen to their account if they lose their phone. However, SIM swaps are often problematic for clients. A client describes how lack of means to perform a SIM swap to recover a mobile money account makes him reluctant to use mobile money:

“For us who live in Ngororero, we don't have any service center. When you save your money on mobile money, and you have an accident such that your phone gets stolen or lost; you can't go to an agent and be helped with a SIM swap, so that you may get back access to your money. An agent will tell you that for them, they don't do SIM swap for SIM cards which have money saved on. For this, it requires you to travel all that distance up to service center. So, we find it also as a hindrance in using electronic money.”

MALE CLIENT, NGORORERO

FIGURE 15

Complaints and resolution by settlement type (left) and financial health score (right)



SMART CAMPAIGN REACTION TO RESULTS

Compared to the other four countries that the Smart Campaign has studied, Rwanda has a strong foundation for complaint resolution in awareness of channels and consumer empowerment. More than two-thirds of Rwandan respondents reported understanding how and where to complain if they had a problem with mobile money. In Benin, only 14 percent of respondents recall being told who to consult in case a problem arose. Even in Peru and Georgia, which are known for having strong microfinance and consumer protection regulatory environments, only 25 percent and 38 percent of clients, respectively, recall being told where or how to address concerns.⁴² In previous Smart Campaign studies, low levels of complaints were compounded by a belief that providers do not respond to client grievances, which may help to explain why so few respondents in Pakistan and Georgia reported that they have had reason to complain in the first place. In Benin, 27 percent of clients who did not

complain did not think that the provider would solve their problem if they did. Some clients feel that complaining is not worth the effort, or worse, that complaining will lead to the provider terminating their relationship. In Rwanda we find more empowered clients, with 88 percent of current and past clients believing their complaint will be solved, and 85 percent of those who complained reporting that the issue was resolved. This combination of awareness of channels and empowered consumers is encouraging news for Rwanda.

However, there appear to be some areas for improvement, such as fraud resolution and call-center responsiveness. Our findings show that only 35 percent of clients who had been a victim of fraud had reported it to the MNO or the police; but 51 percent of clients who had been a victim of fraud did not know how to report it. Service centers and call centers are difficult to reach by phone, and respondents indicate that responsiveness is low.

Mobile Credit

In the survey sample, 27 percent of clients who were aware of mobile credit had applied for a loan. Of clients who applied, about 56 percent were rejected at some point, and 64 percent reported receiving a loan. In the survey sample, loan size ranged from RWF 100 to RWF 80,000 (US\$0.11 to US\$90) with a median loan size of RWF 5,000 (almost US\$6).

Overall, 85 percent of those who received a mobile money loan were satisfied with the service. However, of the forty-five mobile money loan recipients, 38 percent report being surprised by something in the experience that was different from what they had thought when taking out the loan, and 31 percent report that repayment installment amount was different than they thought it would be when they took out the loan. Of those granted a mobile money loan, 44 percent report reading the contract.

For clients applying for mobile credit, likely loan size is not clear from the marketing material and there is potential for clients to spend time applying who have no chance of getting the loan size they desire. Mobile money loans are suited for consumption smoothing but are currently too small for investments in small business. This is consistent with the positioning of mobile credit as a mechanism for managing short-term cash flow. However, clients receive marketing SMSs from MNOs advertising loans of “up to RWF 300,000” (US\$338) and are disappointed when they cannot access this size loan.

More than half of those denied credit, 57 percent, had been denied on multiple occasions; most did not understand why. Findings from our interviews suggest that network providers do provide the reason for denial, but clients may feel that the reason provided is not the true reason. This led some respondents to distrust their MNO. This skepticism may be rooted in a lack of understanding of credit decision-making. For example, a thirty-nine-year-old saleswoman from Nyarugenge reports that her MNO had stated that saving money with her mobile money account would allow her to receive a loan. However, when she saved money and

applied multiple times for mobile credit and was still denied, she felt she was not taken seriously and stopped using the account. Respondents to our study mentioned different prerequisites, such as having a registered account for a minimum amount of time or depositing money in the savings part of MTN’s MoKash service.

Other respondents report understanding how credit history and credit decision-making work. They used the reason provided for denial as information to build their credit status. For example, a retailer in Nyarugenge explains how he managed to be granted a loan after being denied multiple times:

“As I had a bad credit history, I spent a month being denied loans. Later, they gave me a loan; from then I have tried to maintain a good credit history and my credit limit has raised. And I now pay attention to repayment deadlines.”

MALE CLIENT, RETAILER, NYARUGENGE

Repayments

Many clients struggle to repay their digital credit loans and find the thought of being late stressful. About 66 percent of borrowers reported that they had failed to pay an installment by the required date at least once. Common reasons for failing to pay were emergencies and problems receiving an important payment from someone else. Other reasons included low business sales and having other expenses to pay. Most clients who took out a loan (58 percent) felt that the thought of being late for a loan payment was stressful or very stressful.

Encouragingly, the majority of loan recipients (79 percent) report that their service provider reminded them of the repayment date. Furthermore, a significant number had failed to repay a mobile money loan (40 percent). Overall, 53 percent of borrowers knew that if they failed to repay they would be reported to the credit bureau.

While many people can pay on time, some clients incur additional fees by rolling their loans for a second month. Of the twenty-six respondents who have already repaid the last

loan they were granted, it took one to six weeks (average 2.8 weeks) to repay the loan. The median loan size was RWF 5,000 (almost US\$6). In our sample, the median fees paid by clients who have taken out a mobile money loan in the past year and know the fee are similar to the advertised fees (10 percent and 9 percent, respectively). However, the mean amount of fees was higher than advertised (16.7 percent of the loan size), likely due to the additional 9 percent fee charged when clients roll loans for a second month. This implies that clients who are informed of the loan fees for the first and second month may be prone to repay sooner to avoid higher costs.

SMART CAMPAIGN REACTION TO RESULTS

Mobile credit is a nascent product on the Rwandan market, but given its growing popularity, it is important that the product is designed and implemented responsibly. The issues discussed in the earlier sections on transparency, data privacy, recourse, and fraud/data security all apply. It is encouraging that the current product offerings contain some good client protection practices, such as repayment reminders. However, there are some clear areas for improvement, including marketing and sales offering larger loan sizes than what is actually available. While lenders appear to offer rejected borrowers a reason for the denial, those reasons don't seem to match up with client behavior or understanding. Additionally, as loan sizes do get bigger, providers must put more protections in place to avoid overindebtedness, strengthen portfolio quality, and avoid discrimination. Accountability for these issues becomes more complex when the lenders are third-party fintechs leveraging the "rails" of the MNO for transactional, underwriting purposes. For a comprehensive list of responsible digital credit standards, please visit the Smart Campaign's website.

Many clients struggle to repay their digital credit loans and find the thought of being late stressful. About 66 percent of borrowers reported that they had failed to pay an installment by the required date at least once. Common reasons for failing to pay were emergencies and problems receiving an important payment from someone else.

5

Protecting Rwanda's Mobile Money Clients: What's Next?

The overall findings of this report are positive. Most clients are satisfied with the mobile money services they receive and with the agents and user interfaces that provide it. At the same time, there are shortcomings, as documented here. The survey results, therefore, provide a guide to opportunities to make these services safer for consumers and build their trust. Providers, industry associations, regulators, consumer protection advocates, and clients themselves have a role to play in creating safe conditions under which both users and providers can prosper. The project had the benefit of an advisory group of Rwandan-based experts and industry leaders who helped the team to prioritize the issues.

Preventing Fraud and Ensuring Privacy

Fraud, more than any other issue examined in this report, damages trust. With roughly 40 percent of respondents ranking it a problem and 10 percent having been victimized, it is a widespread issue that needs further action.

Providers and Industry

From our interviews, it appears that providers could maintain more trust with clients by communicating their actions against scams. Indeed, stronger punitive action, especially against agent-driven fraud, might reassure aggrieved clients. MNOs require new agents to present a business registration, a minimum balance in cash and float, and an ID in order to obtain a SIM card and a vest at the service center. However, as mobile money agents discussed in a focus group, some new agents bypass the system by simply using a SIM

card from another agent. Additionally, some agents appear to be less strict than others on SIM card registration requirements, likely due to registration commissions, which leaves room for fraud and identity theft.⁴³ Disciplinary actions against agents who act opportunistically and fraudulently (such as partaking in a scam or splitting a customer's transaction into two) are temporary, and there is currently no mechanism in place to blacklist agents convicted of fraud permanently. This is not unprecedented: in Uganda, MTN, and Airtel currently share data on sanctioned agents blacklisted or greylisted for noncompliance.⁴⁴

Many customers are unsure how to seek recompense after being defrauded; those who did know were confused, dissuaded, or worse when providers referred them to the police. It is not good that 51 percent of defrauded customers did not know how to report it and 19 percent of those who did know still did not because it seemed too arduous. Providers must work with relevant authorities to ensure that the process is as efficient and fair as possible, so that clients who lose their money can recover it.

MNOs could also better safeguard users' information and mitigate its misuse for nuisance calls or scams. In Kenya, for example, the M-Pesa service has introduced a limit on the number of times a client can enter a phone number and cancel the transaction; if a client does this more than five times in a row, the account is blocked. This would prevent someone intending to spam clients from being able to do so for more than five different account holders.

It is nearly impossible to avoid individual agents from overcharging, but perhaps network incentives can encourage stronger customer engagement. GSMA recently blogged advocating for a structured rewards system, already in place in Kenya, where ceremonies are held at a regional level to reward agents who do well in areas such as high liquidity availability, operational excellence, and best business practices such as quality customer service.⁴⁵

The Smart Campaign's Client Protection Standards and GSMA's Mobile Money Certification Program require specific practices to mitigate the risk of fraud and minimize the fallout, as well as in data protection and privacy. They cover governance and board-approved privacy and antifraud policies, regular assessments, agent training requirements, internal controls, sanctions, and what is communicated and offered to the client. GSMA's code gives customers control and choice over how their personal data is handled as well as the ability to opt out. It also gives consumers a right to access their data at any time and challenge its accuracy. The Smart Campaign requires that providers seeking client consent inform clients clearly, in a local language, of their intended use and retention of their data, including the types of data used (a special highlight is needed for use of geolocation data). In obtaining consent, clients must be informed of the data's destination when it is shared with partner organizations providing a portion of the service; shared with other third parties, especially credit bureaus; sold; and/or used for marketing. For services delivered through USSD and SMS, internet links to disclosure statements are not a sufficient means of informing clients. Some additional recommendations might be to engage regularly with supervisory authorities to be part of a process of better practices. Finally, when analyzing the customer liabilities, providers should weigh security issues and flaws against fairness to customers.⁴⁶

While no financial or mobile money provider in Rwanda is currently certified against these robust industry standards, there are many organizations preparing and improving their practices (such as the Responsible Finance through Local Leadership and Learning Program, RFL3). Other stakeholders such as industry associations and investors could incentivize and encourage providers to demonstrate adherence to these standards.

Regulators and Supervisors

In the areas of fraud and data privacy, the RURA governs and monitors the mobile money market as part of the larger information and communication technology landscape and intervenes where it deems necessary with regulation, guidelines, and consumer awareness campaigns.⁴⁷ The National Bank of Rwanda mandates that customers shall not be liable for loss in cases of fraud that are "a) not attributable to or not contributed by the customer; b) caused by the fraudulent or negligent conduct of officers or agents appointed by i.) the institution, ii.) companies and other institutions involved in networking arrangements, or iii.) merchants who are linked to the card or other communication system."⁴⁸ Providers are fully liable for any fraudulent behavior by their agents.⁴⁹

In addition, the recently created RIB is empowered to conduct telecommunications surveillance as well as arrest and detain suspects of cybercrimes, among other criminal activities.⁵⁰ However, it is likely that the RIB's resources and efforts are prioritized for large-scale scammers rather than individual rogue agents or individuals.⁵¹

For example, in the wake of several high-profile SIM scans unearthed by RIB in the summer of 2018, RURA announced an information campaign to empower users to discover whether their identification cards had been fraudulently used to register additional SIM cards. It leveraged traditional and social media (see tweet and YouTube video).

FIGURE 16

SIM Swap Fraud Illustration

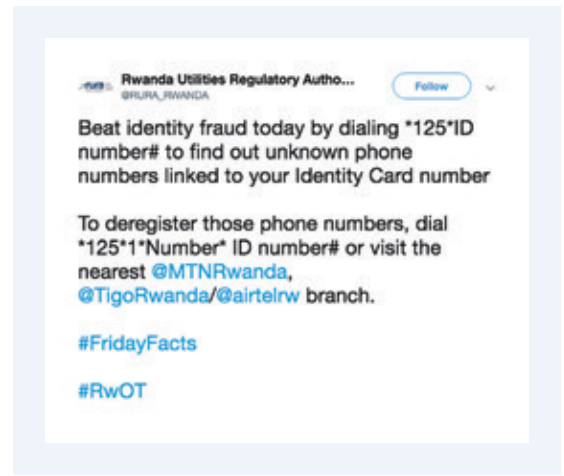


RURA also announced in late 2018 a limit of three SIM cards, per individual per network (six total) in order to stem fraud and scamming.⁵² Individuals had until January 31, 2019, to comply, after which the seventh SIM card per individual would be deactivated.⁵³ Additionally, as SIM swaps are an area where frequent fraud occurs, RURA directs that every time fraud happens after a SIM swap, the client should be refunded, as the swap represents noncompliance with the law. Additionally, to the agents' contention in focus-group discussions that they are not allowed to manage SIM swaps above a certain amount, RURA put such measures in place to prevent fraud; it also mandated that SIM swap recipients receive their money only seventy-two hours after the swap to prevent quick, immediate fraudulent cash-outs.

In addition to the many proactive measures they are currently taking, regulatory and supervisory authorities in Rwanda might think about adopting additional cybersecurity supervisory elements, such as annual cybersecurity reports from mobile money and other DFS providers and on-site visits to providers. We recommend staying away from issuing deeply detailed technical standards given the dynamism of the space, but

FIGURE 17

RURA Anti-Fraud Social Media Post



providers should instead work closely with a trusted cybersecurity expert or research center.⁵⁴ Additionally, despite the BNR's mandate on fraud and liability, we found that respondents are not sure where to turn when they are the victims of fraud; they may not be properly compensated. Finally, while the BNR now regularly collects data from payment institutions on agents, agent fraud, and agent termination (for cause), there is no agent blacklist. This could be a good shared resource between regulators and providers to avoid re-employing individuals previously fired or terminated for fraud.⁵⁵ The recently passed Agent Management Guidelines prohibit overcharging customers; however, monitoring this is very difficult and is likely done through provider and market-level recourse trends.⁵⁶

While Rwanda does have basic data privacy covenants within network security regulations and other statutes, there is no comprehensive data privacy and data protection framework.⁵⁷ In addition, standards and regulation around data privacy may be changing in the coming years, with an articulation that consent may be necessary but not sufficient. As David Medine and Gayatri Murthy write, "New solutions may improve consent, but as the digital age progresses the consent model is becoming less

fit for its purpose.... As the digital realm claims an ever-greater share of low-income people's economic and social activity worldwide, it's becoming increasingly clear that stronger legal protections are needed to ensure financial services providers and others respect data privacy rights.”

Finally, while the government has embarked on several privacy and fraud awareness campaigns, given our findings of relatively low levels of client awareness of how to report fraud and of the data that MNOs collect on them, more client awareness raising should be done. Research shows the difficulty of implementing effective financial-education campaigns, and thus the government might think about leveraging insights from behavioral economics and financial capability to design creative interventions. For example, in South Africa, a soap opera show called *Scandal!* focuses on protagonist Maletsatsi's misadventures with installment plans, gambling, and borrowing, which eventually lead her to seek the help of a credit counselor. A group of World Bank economists evaluated this intervention and found that the soap opera had a significant positive impact on the financial literacy and behavior of its viewers.⁵⁸

Customers

Not all the onus of protecting clients falls on providers and regulators. Consumers have a role to play in educating themselves to make the best decisions. However, with the breakneck advancement of mobile money and new products with new users, we must be attentive to the digital divide. Mobile money users can take steps to protect themselves, including making sure that others cannot access their secure PIN. BNR regulations state that if customers are found to have failed to take reasonable care to keep their PIN code secret and become the victim of fraud, the provider is not liable for any losses.⁵⁹ It is indeed encouraging that such a high percentage of mobile money users in Rwanda already know the importance of keeping their PIN safe; however, as we've seen, some users

share phones with others or access mobile money via another phone/friend. While they appear to become savvier over time, customers should also educate themselves to ignore suspicious text messages asking for money to release a package or prize. They should also make sure to download software updates as soon as they become available to avoid unnecessary vulnerabilities.⁶⁰

Building Genuine Transparency

Providers

It is encouraging that a high percentage of respondents are satisfied with the design of the mobile money interfaces. However, despite the positive feedback, 69 percent of clients believe it is easy to make a mistake and 17 percent have actually made a mistake. Among that group, roughly half said they were able to get their money returned. These mistakes, especially those that are not rectified, clearly have real consequences for clients and ensuring that the interface is as well designed as possible for end users is important.

The user interface should be clear and simple, providing step-by-step instructions in a major local language to let clients understand how to use the service (onboarding, transferring money, applying for a loan, accessing account information) and cover frequently faced issues. The provider must also deploy field staff or agents to support users, including providing instructions in simple language on how to use the technology safely. MNOs must provide training, explanations, troubleshooting, and/or assistance to first-time users and any user having difficulties, and answer questions clients frequently have. These trainings do not always have to be labor-intensive. For example, in Bangladesh, Grameenphone has created customer protection tutorial videos for agents that are available via its G-LEAP app.⁶¹ Providers must show evidence that they have taken client demographics and literacy constraints into account in designing, deploying, and monitoring technology.

Although providers currently use both English and Kinyarwanda, our survey found that menus sometimes toggle between the two unexpectedly, which can confuse users and lead to mistakes. One National Advisory Council member mentioned a related problem: when providers change handset menus abruptly, it creates usability issues for those who have only numerical literacy, as the menus change and are “crammed” with new information. With over 90 percent of the population speaking Kinyarwanda and a much smaller portion speaking English, we encourage providers to ensure that all menus and communications are fully available in Kinyarwanda. One Council member encouraged providers to go beyond the two languages and embrace additional spoken languages, such as the newly official language Swahili. As mentioned earlier, it is unacceptable that so many respondents did not know the fees they would be charged for a transaction prior to making it and had to guess to make sure they were fully covered (or, if they didn’t, risk a failed transaction). For transactions done through agents, every single agent *should* have a pricing sheet from the MNOs where clients can check for the applicable fee, but customers seemingly don’t ask for them.⁶² Perhaps providers could incentivize agents to remind customers of the relevant fee for any transaction prior to completing it. For transactions conducted exclusively over the handset, clients must be provided with sufficient information prior to completing the transaction, perhaps through a second-step confirmation.

It is not surprising that such a low percentage of respondents (14 percent) received documentation related to their mobile money contract, given the medium and emphasis on mobile money as a cashless and paperless channel. What is concerning is that over 80 percent of clients report that if they do have a question about the terms and conditions, they don’t know either whether or how they can access this information on their phones. This is fixable through a few channels: for instance, an electronic key facts statement that is easily accessible on their phone or is sent on a regular basis.

Agents are a focal point for both excellent and terrible client protection regarding transparency. Given the low awareness of fees and of how to access terms and condition, we suggest that agents proactively offer information.

Regulators and Supervisors

According to regulations, copies of standard terms and conditions must be available at agent locations, though either agents aren’t compliant or our customers aren’t asking for them.⁶³ Regulations also stipulate that agents be well trained to provide customer service and in confidentiality of information, cash security, record keeping, and financial education; more could be specified here regarding pricing and terms and conditions.⁶⁴

Any payment service provider must show the Bank of Rwanda their terms and conditions for review; they must be in Kinyarwanda and either French or English as well as being clear and readily understandable. More could be stipulated here with regard to vulnerable and illiterate populations. According to our review, the law is not completely clear regarding the timing of disclosure, writing that information must be shared “before or at the time the electronic fund transfer is carried out.”⁶⁵ This appears to leave open a window for respondents only knowing how much they are paying after finalizing the transaction, which should be avoided.

Given the low understanding and engagement with terms and conditions and full contracts, we also suggest that the Bank of Rwanda consider a similar approach to the one it took in requiring Key Fact Sheets for consumer credit providers.⁶⁶

Customers

It’s clear that mobile money customers need more information in order to make the best decisions for themselves and need to feel confident to ask more questions and information of agents and service centers. Of course Rwandan mobile money users, like most of us, are pressed for time and are likely to take shortcuts in order to access the product or service they desire.

Strengthening Recourse

Provider

Rwandan providers can do more to establish robust recourse mechanisms, especially in tweaking the operations of their call centers as well as communicating their availability to clients. The Smart Campaign standards in digital finance recommend: “If provider receives complaints via call centers or live chat, the call center/response unit should be adequately staffed by appropriately-trained respondents to provide information and address the clients’ complaints: The average waiting time for calling-in clients should be below 15 minutes and the call center/back office units should receive updates on new products and other general information before or maximum 1 day after the change.”

Mechanisms to submit complaints must also be adapted to clients’ needs and preferences and easily accessible (by a toll-free number, for example), especially in rural areas and for low-income users. When providers work with agents to deliver services, it is important for signage and written materials to inform customers how to register a complaint, who is responsible for resolving complaints, and how to lodge complaints against agents. The recourse mechanism should not only be in the terms and conditions of the contract but readily available through multiple channels.

Rwandan providers particularly could do more in the area of recourse against fraud, as many customers are unsure how to seek recompense after being defrauded; those who do know are confused, dissuaded, or worse when providers refer them to the police.

Regulation and Supervision

As we have seen, while the majority of respondents know how to complain and what channels to use, roughly a third do not. Under the regulation, all providers must have a formalized procedure for complaint resolution. They must also communicate these procedures to clients within the terms and conditions.

Unfortunately, as we have seen, clients do not know how to access their terms and conditions and thus are unaware of the resources available to them.

The law requires that providers must acknowledge the complaint within five days, resolve it within fifteen days, and report all data to the Central Bank.⁶⁷ Given issues with call centers reported in our survey, regulators might want to think about requiring specific standards around wait times as well as quality control with call centers, as they appear to be the most common form of grievance redressal.

If dissatisfied, clients also have the right to refer the complaint to the National Bank of Rwanda, the RURA, or other bodies authorized by the BNR.⁶⁸ RURA’s complaint-handling system involves several elements including contacting the relevant provider, conducting a preliminary inquiry, acting as a mediator, or at last resort convening a formal panel. Complaints can be lodged in written form or over a RURA hotline. If the parties are still dissatisfied, they can go to court.⁶⁹ None of our respondents who have ever complained had interacted or even mentioned RURA.

While RURA has done several awareness campaigns regarding how and where to complain, it seems there is more work to be done to find the best channels to reach lower-income and rural segments who lack information and access.

Consumers

It appears, encouragingly, that consumers feel empowered to complain should the need arise. But what is missing for about a third of users is awareness of the process and resources available. We hope that providers and governments will do more to make clients aware of their options. Clients should make good-faith efforts to resolve problems directly, then make use of the complaints procedures available to them. Clients should also avoid making unnecessary complaints about issues that have not caused them serious inconvenience or cost, because these are a waste of time, money, and good will for the provider.⁷⁰

Responsible Mobile Credit Advertising and Underwriting

Digital credit providers have grown exponentially over the past few years, especially in East Africa. In Rwanda, the market is growing but has yet to pick up the momentum of some of its neighbors. While this proliferation is promising, it also raises concerns around how to offer credit responsibly. Many groups are concurrently working to develop principles and standards for responsible digital lending, including the Smart Campaign. These standards address the same big conceptual areas of consumer protection that apply to traditional institutions. From the research conducted in Rwanda and our own standard-setting, here are a few key issues for stakeholders to keep in mind, beyond the issues discussed already in this paper:

Marketing and Sales

The research shows a mismatch between the advertising for digital loans and what is actually available, with potential borrowers being told they can borrow much larger amounts. Providers should follow standards for honest advertising and should face penalties for misleadingly marketing credit products.

Responsible Underwriting

Many digital credit models leverage algorithms to process data about clients in order to underwrite credit decisions. Because most lenders consider their algorithms proprietary, it is difficult for observers to know on what basis credit decisions are actually made. This “black box” raises the prospect of discrimination. As the Smart Campaign has written, while credit offers may differ based on risk analysis, such differentiation should be consistently applied, stated in advance, and made with the goal of benefiting clients. To prevent discriminatory digital credit practices, providers should consistently pretest and test for potential bias, document the rationale for algorithmic features, and conduct such activities through an independent unit of the company or a third party. We also encourage providers to think

carefully about preventing overindebtedness through monitoring outcomes at the portfolio level, engaging with and using credit reporting, and other methods. Clients should also be able to understand why they were rejected for a loan, which did not seem to be universally the case among respondents. Additionally, provider business models seem to accept or predict a large number of defaults to build their credit scoring model. Keeping that in mind, we think that the negative consequences of this lend-to-learn period should not accumulate to clients. For regulators and market monitoring, we support the suggestion of Consultative Group to Assist the Poor (CGAP) to have a “clear periodic reporting structure for key statistics... to provide a consistent base for market monitoring and risk-based supervision. Credit quality indicators with transactional late payment and default data should also be included.”⁷¹

Effective Product Delivery: Network Downtime and Agent Liquidity

Providers

Of clients who report issues using mobile money due to network outages, 30 percent experience this roughly once a month, 14 percent said roughly once a week, and 17 percent of clients report that they had experienced these three or more times. Roughly 17 percent of those who have experienced downtime report real financial consequences, though most said it was more of an inconvenience. As the digital ecosystem becomes more intertwined in Rwandans’ daily lives, the consequences of downtime will become more severe. As mentioned earlier, mobile money providers have a clear incentive to minimize disruptions, as clients are entitled to timely access to their funds. They also have obligations to communicate planned outages to customers in advance, to apologize after unplanned outages, and to work swiftly to rectify mistakes that occur during downtime. The GSMA’s Code of Conduct requires providers to educate customers on what to do in an outage or when they do not receive a

Mobile money providers have a clear incentive to minimize network outages and ensure agent liquidity, as customers are entitled to timely access to their funds.

transaction confirmation message.⁷² Providers should also encourage customers not to leave sensitive information with agents or others to complete a transaction that fails during a network outage. While less convenient, this practice can reduce the risk of fraud.

Float and liquidity issues among agents and network managers are common across the globe and can be a strain on agents and clients alike. Encouragingly, there are some emerging practices that can help mitigate this, including the use of float runners (who deliver float or cash directly to agent locations) and predictive data analytics and data dashboards (using data such as customer volume and transaction value) to monitor and estimate float inventory. A fintech startup called Pesakit works with agent networks in Kenya, and employs an artificial intelligence-enabled chatbot that conducts conversations via voice or text and a daily insights menu for liquidity management.

Regulators and Supervisors

The Rwandan law clearly spells out that in a case of a system or equipment error (such as a network outage), the “payment service provider shall be liable to its customer a) for a loss caused by the failure of an electronic fund transfer system or equipment to complete a transaction received and accepted by a terminal, in accordance with the customer’s instruction.” However, if customers are notified of the outage ahead of time, “the institution’s responsibilities are limited to the correction of any error in the customer’s account, and the refund of any charges or fees imposed on the customer for that transaction.”⁷³ Agents are forbidden from operating or carrying out

an electronic transaction when there is a communication failure in the system.⁷⁴

A more aggressive approach to system outages is in the Australia ePayments Code, which goes beyond direct loss. It requires that a provider must “not deny a user’s right to claim consequential damages resulting from any malfunction of a system or equipment provided by any party to a shared electronic network (unless the client should reasonably have been aware of the malfunction or outage ahead of time).”⁷⁵ While intriguing, this does not seem feasible in most markets due to the cost of processing and proving damages.

While regulation stipulates that agent network managers train their agents on the importance of liquidity management, monitoring liquidity management is not seen as the purview of the regulator.

Consumers

Clients should avoid attempting transactions during system outages, but should feel empowered that if money is lost during an outage, they are entitled to it. At this stage, unfortunately, clients should probably only expect to be compensated for direct, not indirect, losses.

A Closing Thought on Trust

As the Bank of Rwanda wrote in a recent circular introducing new consumer protection requirements, “trust is the single most important ingredient for growth of agents’ financial services business.”⁷⁶ We heartily agree and hope that the results of this paper help to strengthen that key ingredient in the Rwandan digital-finance ecosystem.

Methodology and Demography of the Quantitative Sample

The Client Voices project on DFS in Rwanda consisted of two parts: a quantitative survey with 1,205 respondents in April and May 2018; and a qualitative component in July 2018, including two focus group discussions with agents and two with DFS users as well as twenty-six semi-structured interviews with DFS users. Agents were included in the qualitative part of the research because they interact with many different customers and bring an additional perspective.

The quantitative survey allowed us to look at the prevalence of different issues among mobile money clients across our three districts and explore what types of clients experience each issue. Our qualitative interviews home in on personal experiences to paint a picture of what exactly happens when they experienced an issue, the impacts and consequences, and what recourse, if any, they can access.

Three of Rwanda's thirty districts were specifically chosen as the focus of this study to capture three unique environments: the urban Nyarugenge district within Kigali City, periurban Huye district, home to one of Rwanda's secondary cities; and rural Ngororero in the Western Province.

FIGURE 18

Location of Research Sites in Rwanda



Quantitative Survey Sample

A subset of twenty-seven villages were randomly sampled from each of the three chosen districts. This random selection of villages within districts was not stratified based on whether the villages themselves are classified as rural or urban. In Ngororero, all villages are classified as rural; however, Nyarugenge and Huye contain both rural and urban villages. When we compare the share of urban villages in our sample to the overall district (Table 5), we find small differences; urban villages were slightly overrepresented in Nyarugenge and underrepresented in Huye. Although our sample is still representative at the district level, this should be kept in mind when looking at the differences between districts in the results.

After villages were randomly selected, a village listing exercise was conducted with the leaders of each of the eighty-one villages to obtain a list of all households. Households

were randomly selected from the village lists and visited by field preparation enumerators. A short roster of adult household members was conducted at each visited household with screening questions on DFS use to determine if the household was eligible for the study and the exact household member to be invited to participate. Individual household members were selected using a random but weighted process to ensure that the majority of sampled participants were current mobile money users (Table 6). We included a majority of current DFS users in our sample, because this research is particularly focused on the experience of users. During analysis we accounted for the clustered structure of the sample and the probability of selection of individual respondents using design weights.

Qualitative Interview Sample

We carried out targeted qualitative sampling for the qualitative interviews. Working with the Smart Campaign, we used the quantitative data to develop a comprehensive list of user profiles to be included in the qualitative research, with the aim of capturing information on in-depth personal experiences with the main issues identified in the quantitative research, while also including respondents with a range of background demographics and across our three districts.

Sample Demographics

Our participants are, on average, thirty-eight years old. There were more female participants in the survey than male, across all districts. The average household size is between four and five members, with an average of two children per household in Nyarugenge and Huye and 2.3 children in Ngororero. The

TABLE 5

Share of urban villages in total (column 2) and in our sample (column 3) by district

DISTRICT	SHARE OF VILLAGES THAT ARE URBAN (%)	SHARE OF SAMPLE VILLAGES THAT ARE URBAN (%)
Nyarugenge	45.9	59
Huye	10.4	7.4
Ngororero	0	0

TABLE 6

Number of respondents and share of respondents in final sample by user type

USER TYPE	NUMBER OF RESPONDENTS	SHARE OF RESPONDENTS (%)
Financially excluded	80	6.6
Financially included but no DFS	115	9.5
Current DFS user	989	82.0
Past DFS user	21	1.7
Total	1,205	100

average monthly income (estimated based on the past thirty days) is much higher in Nyarugenge than in Huye or Ngororero. There is just a small district difference in participants' average financial health scores with Nyarugenge having a higher score than Huye and Ngororero.

Overall, our Nyarugenge district sample has a higher average monthly income than our Huye or Ngororero samples. However, we can clearly see a significant group of urban poor in the lower end of the Nyarugenge income distribution. The Ngororero and

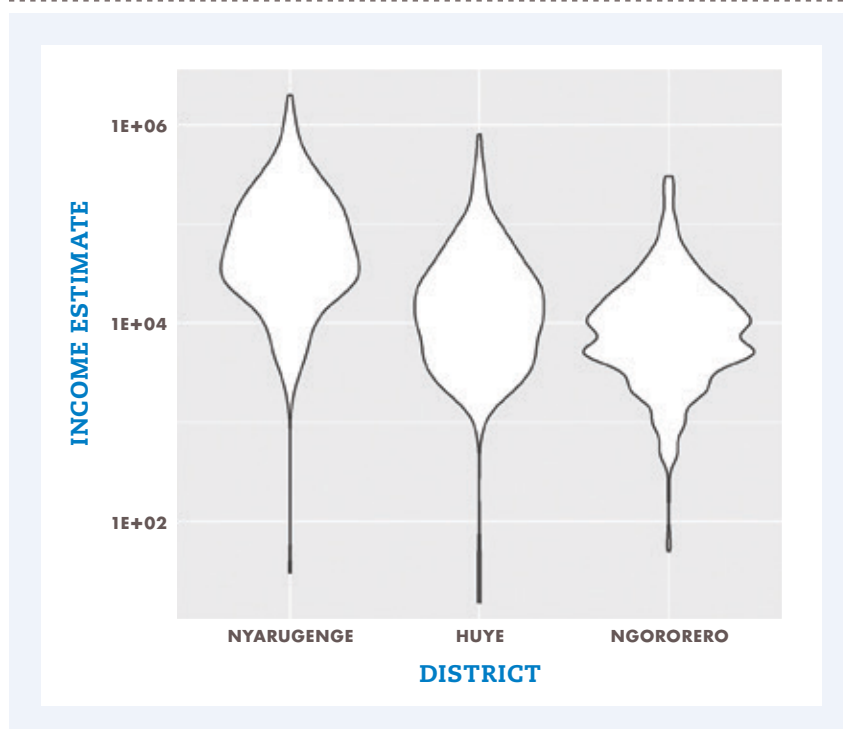
TABLE 7

Basic demographic summary of our survey sample by district

DEMOGRAPHIC VARIABLE/DISTRICT	NYARUGENGE	HUYE	NGORORERO
Age	37	39	38
Share female	54%	60%	59%
Household size	4.9	4.4	4.7
Children per household	2.0	2.0	2.3
Estimated income past 30 days	111,172 RWF (US\$125)	30,799 RWF (US\$35)	16,327 RWF (US\$18)
Financial health score	641	589	562

TABLE 8

Income distributions, based on last 30 days income estimates, across the three districts



Huye distributions are much more similar, although the range of incomes in Ngororero is slightly smaller than in Huye.

All participants spoke Kinyarwanda (the language in which the survey was conducted). Just under 30 percent of survey respondents can speak more than one language, with this being the case for 50 percent of the sample in Nyarugenge, 23 percent in Huye, and 14 percent in Ngororero. Of the 1,205 participants, 156 can neither read nor write (13 percent). Literacy rates of sample participants differ across the three districts, with 92 percent of participants from Nyarugenge being literate, 90 percent from Huye, and 80 percent from Ngororero.

There is a clear difference in the educational attainment levels of people in districts within and outside Kigali. Almost 60 percent of our Ngororero sample have either not attended school at all or attended but not completed primary school, while 35 percent of our Nyarugenge sample completed either secondary school, TVET, or university compared to less than 10 percent in both Huye and Ngororero.

Nyarugenge has the highest proportion of the sample categorized as either “Coping” or “Healthy” based on their financial health scores. Still, very few people, even in Nyarugenge, are categorized as “Healthy” (only 5 percent). Over 40 percent of our sample in Huye and Ngororero are categorized as financially “Vulnerable.” The financial-health scorecard asks fifteen questions, five on each of three topics: day-to-day management, resilience to weather ups and downs, and long-term perspective. A score is given for each answer and the total categorized as “Vulnerable” (0–500), “Coping” (501–1000), or “Healthy” (1001–1500).

FIGURE 19

Highest level of education completed, across the three districts

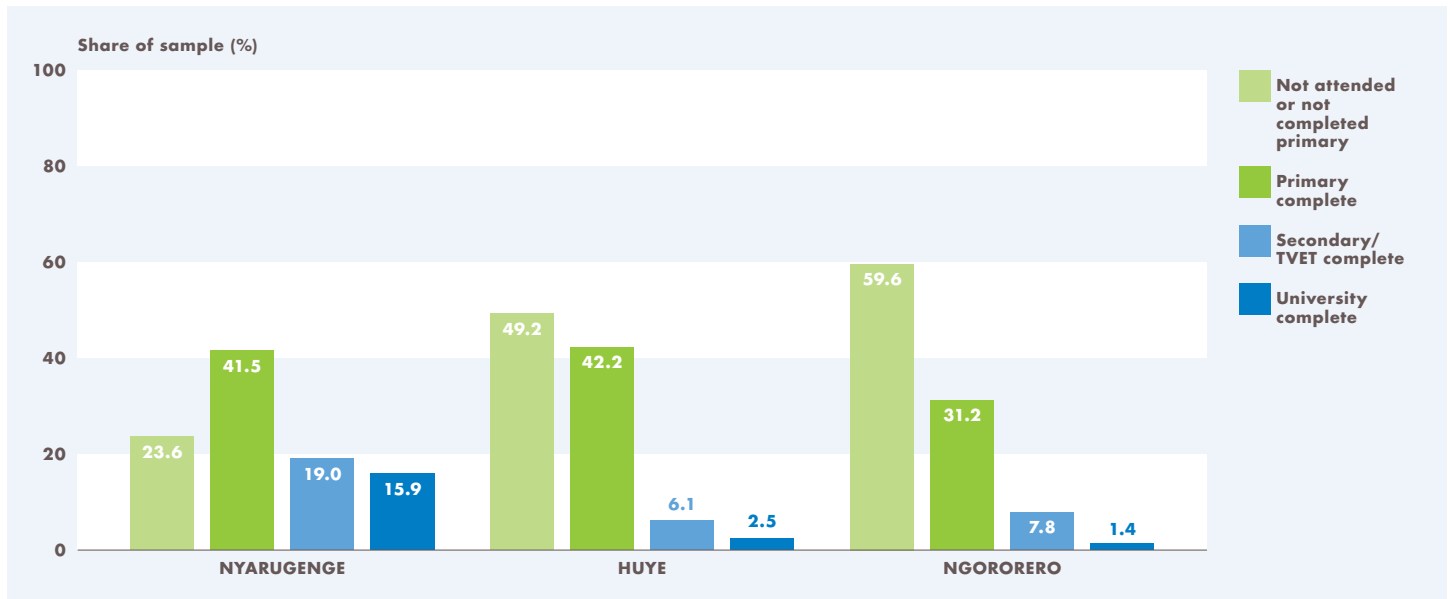
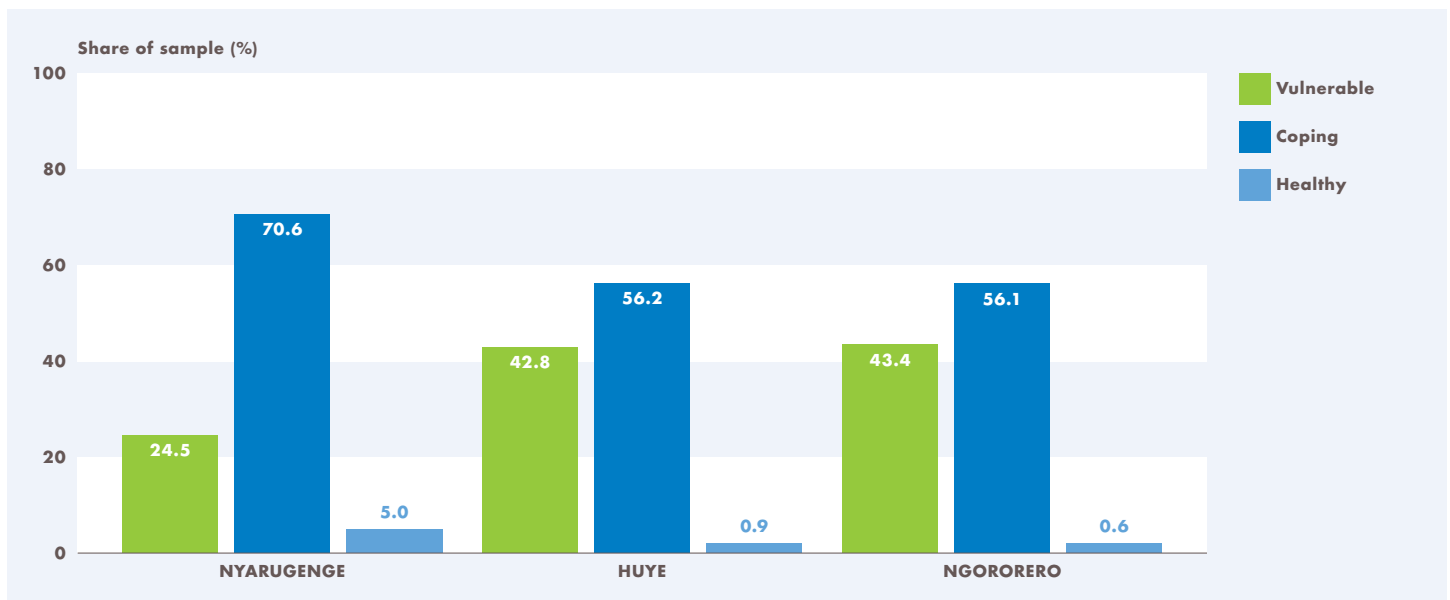


FIGURE 20

Distribution of financial health scores calculated for our sample, across the three districts

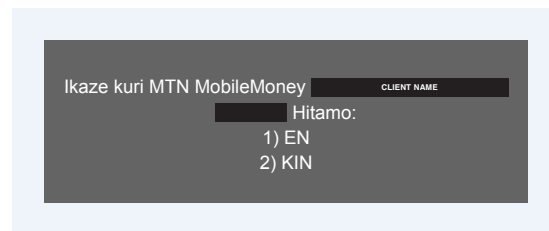


Examples of the Mobile Money User Interface

Example 1: Initial screen when accessing the MTN Mobile Money interface. The explanation in this screen is always displayed in Kinyarwanda and asks the client to first select a language with English or Kinyarwanda options. The system runs on USSD code as a series of menu options and the client proceeds through by sending back a number at each screen.

FIGURE 21

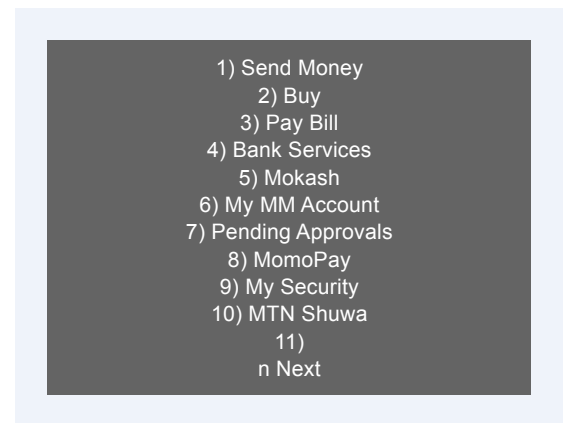
Initial screen when accessing the MTN Mobile Money interface



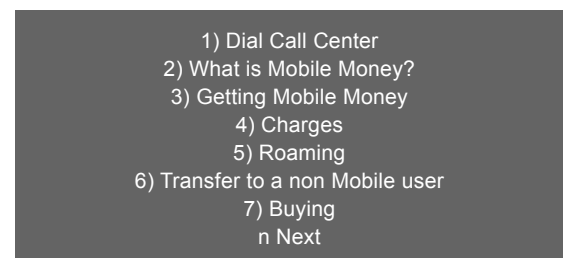
Example 2: Main menu screen of the MTN Mobile Money Interface

FIGURE 22

Main menu screen when accessing the MTN Mobile Money interface



Example 3: The additional MTN Mobile Money help screen that appears if you go to “n Next” in the previous menu. This includes an option for fee information which, if selected, displays the following message: “For every mobile Money transfer the system will charge you a transaction fee. Obtain copy of charges from MTN Stores or Agents.”



Example 4: Tigo Cash main menu screen (left), payments screen (center), and account management screen (right). The “Change Language” option on the account management screen allows for the language settings to be changed; otherwise the language of the system will remain in the language that is selected the first time a client enters the system.

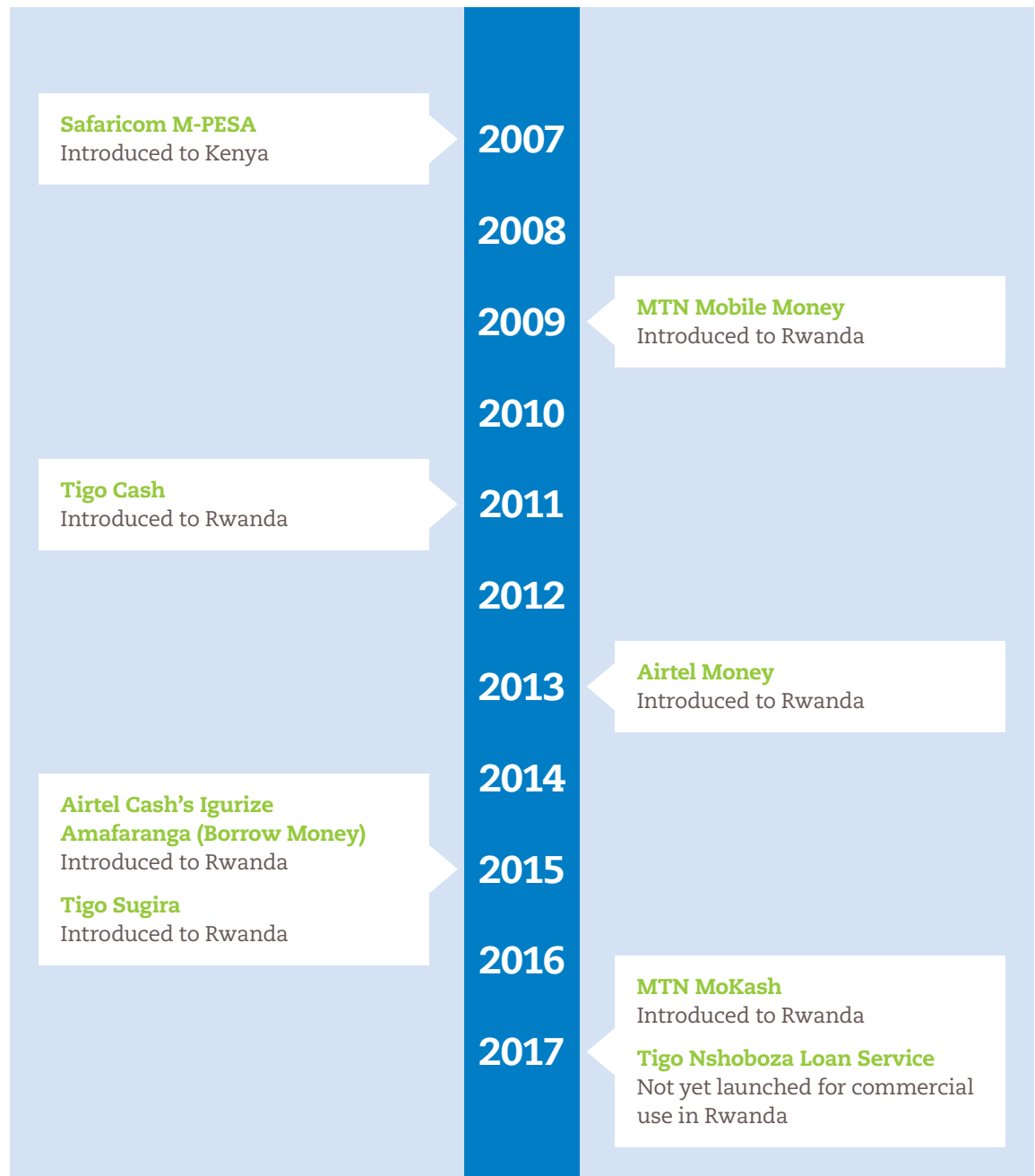
<p>TigoCash</p> <ol style="list-style-type: none"> 1. Send Money 2. Buy Airtime (50% BONUS) 3. Cash Out 4. Payments 5. My Account 6. Bank Services 	<p>Payments</p> <ol style="list-style-type: none"> 1. Buy Cash Power 2. Pay Business 3. Pay Company/Bills 4. Pay Loan 6. Government Services 	<p>My Account</p> <ol style="list-style-type: none"> 1. Balance Enquiry 2. Change PIN 3. Change Language 4. Redeem Voucher to Wallet
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Example 5: Airtel Money main menu screen (left), financial services screen (center), and account management screen (right). The Airtel Money system also has an option to view “Terms and Conditions”; however, during our testing period, selecting this always ended with a timeout or error message. Airtel Money has a system of locating agents; when you select this, you are asked to input a city and then are sent a series of SMS with agents’ information. This system does not appear to use GPS and does not send agent information specific to a location other than the city selected.

<p>Airtel Money</p> <ol style="list-style-type: none"> 1. Send Money 2. Buy Airtime/Bundles 3. Withdraw Money 4. Pay Bill 5. Financial Services 6. Crossborder 7. My Account * Main Menu 	<p>Please Select:</p> <ol style="list-style-type: none"> 1. Bank 2. MicroLoans/Savings 3. International Remittance * Main Menu 	<p>Please Select:</p> <ol style="list-style-type: none"> 1. Balance 2. Change PIN 3. Reports 4. Language 5. Agent Locator 6. Secret Word 7. Reset PIN 8. Alternate Number * Main Menu
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Example 6: An example, using Tigo Cash, of the user interface on a basic phone. The longer the menu, the longer the process of scrolling through options, due to the small screen. Here, when you press “back,” you are taken out of the interface and need to start again.

Timeline of Mobile Money Services in Rwanda



National Advisory Council Members

NAME	TITLE	ORGANIZATION
Vénérande Mukamurera	Director of Consumer Affairs	Rwanda Utilities Regulatory Authority (RURA)
Jean Pierre Uwizeye	Managing Director	AMIR
Straton Habyalimana	Senior Project Manager	SEEP
Kévin Kavugizo	Head of Microfinance	National Bank of Rwanda (BNR)
Damien Ndizeye	Representative	ADECOR
James Kwezi	Digital Financial Services Project Officer	AFR

Endnotes

- 1** GSMA, “2017 State of Industry Report,” 2018, www.gsma.com/mobilefordevelopment/wp-content/uploads/2018/05/GSMA_2017_State_of_the_Industry_Report_on_Mobile_Money_Full_Report.pdf
- 2** GSMA, “2017 State of Industry Report.”
- 3** “Rwanda Diagnostic Review of Consumer Protection and Financial Literacy: Volume II: Comparison with Good Practices,” November 2013, <https://doi.org/10.1596/25886>
- 4** National Bank of Rwanda, *Regulations on Electronic Fund Transfers and Electronic Money Transactions*, Article 16, 2010.
- 5** National Bank of Rwanda, “Financial Consumer Protection Law,” <https://www.bnr.rw/index.php?id=195>.
- 6** National Bank of Rwanda, *Regulations on Electronic Fund Transfers*, Article 23.
- 7** GSMA, “2017 State of Industry Report.”
- 8** GSMA, “2017 State of Industry Report.”
- 9** DFS includes all “methods to electronically store and transfer funds, to make and receive payments including to borrow, save, insure and invest, and to manage a person’s or enterprise’s finances.” This is the definition used by Access to Finance Rwanda (AFR) and FinMark Trust in the 2016 report *Digital Financial Services in Rwanda*. See http://www.ruralfinanceandinvestment.org/sites/default/files/INSIGHT_NOTE-DIGITALFINANCE-13-June-2017.pdf.
- 10** The predominant DFS service in Rwanda is mobile money. In this report, unless specifically stated otherwise, reference to mobile money include all digital financial services offered by Rwanda’s mobile network operators: MTN Mobile money, Airtel Money, and Tigo Cash.
- 11** In the three-district sample, the majority of areas sampled in Nyarugenge are urban, the majority of sampled areas in Huye are rural, and all sampled areas in Ngororero are rural; which means that reported district patterns reflect this urban/rural split.
- 12** In the data analysis, weights consider the sampling strategy and the probability of selection for each DFS user type. The weights allow for reporting on differences within and between the three districts in the sample, as the population of all three districts are represented.
- 13** In this report, unless specifically stated otherwise, we refer to “clients” as those in the three study districts who have ever used mobile money, including those who have registered their own account and those who transact using the accounts of others. We refer to a “current user” as someone who has used mobile money to complete a transaction in the past ninety days.
- 14** Economist Intelligence Unit, “Global Microscope 2018: The Enabling Environment for Financial Inclusion.” <https://www.centerforfinancialinclusion.org/global-microscope-2018>
- 15** In Rwanda, radio is one of the most effective platforms for mobile money marketing and information dissemination.
- 16** Finscope and Access to Finance Rwanda, *Digital Financial Services in Rwanda*, 2016.
- 17** Rwanda Utilities Regulatory Authority, May 2018 statistics, <http://www.rura.rw/index.php?id=60>.
- 18** Ben Gasore, “Tigo Unveils a Mobile Savings Service,” *New Times*, April 2, 2015, <https://www.newtimes.co.rw/section/read/187496>.
- 19** Phillip Onzoma. Airtel Money director of M-Commerce and Enterprise Business, quoted in Nicholas Kamanzi, “Airtel Rwanda Introduces Micro-Loans on Airtel Money,” *PC Tech*, March 30, 2015, <https://pctechmag.com/2015/03/airtel-rwanda-introduces-micro-loans-on-airtel-money>.
- 20** MTN controls approximately 45 percent of the market in Rwanda.
- 21** This report uses a conversion rate of 1 USD=885.46 RWF throughout.
- 22** Some clients mentioned that they value stability; the recent merger between Tigo and Airtel has created a sense of uncertainty among some clients who feel they have not been adequately informed of the reasons behind the merger or potential consequences for themselves.
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