The State of Inclusive Instant Payment Systems (SIIPS) in Africa report is an AfricaNenda initiative in collaboration with the World Bank and the United Nations Economic Commission for Africa. This annual think piece is derived from a comprehensive assessment of instant payment systems across Africa, employing a blend of research methodologies. It involves an in-depth industry analysis to identify key trends, best practices, and benchmarks. The aim is to guide the enhancement and growth of instant and inclusive payment systems, thereby hastening financial inclusion on the continent.

The SIIPS in Africa 2023 report marks the second edition of this endeavor. The report’s goal is to enlighten both public and private sector stakeholders within Africa and internationally on the advancements within the instant retail payment system (IPS) landscape in Africa. This includes evaluating how inclusive these systems are in terms of functionality (their accessibility to all end-users) and governance (ensuring all licensed payment providers have equitable access and opportunities to contribute to system design).

For the 2023 edition, the report includes systems that were operational with live transactions as of June 2023. Data for this report was compiled using public sources from March to July 2023, complemented by comprehensive stakeholder interviews conducted in the same timeframe. The consumer research took place between May and June 2023. It involved extensive in-country qualitative and quantitative research covering low-income adult individuals and micro, small, and medium-sized enterprises (MSMEs) across five countries, namely Cameroon, Malawi, Morocco, Rwanda, and Senegal.

This consumer research exercise will be replicated in different countries annually, and insights will contribute to the annual SIIPS report content. The sample is not nationally representative, as this exercise was intended to draw out insights to inform how IPS can be designed to meet the needs of end-users better.
SECTION 1

METHODOLOGY OVERVIEW
Methodology: Overview

Research methodology and corresponding objectives

**Quantitative survey**
- Understand customer usage habits
- Measure frequency of digital payment usage and transaction profiles
- Rank the most used payment instruments
- Identify core barriers

**In-depth interview**
- Map use-case characteristics and payment behavior
- Determine customer perceptions on instant and inclusive payments using access, early usage, and habitual usage framework
- Map the customer journey

**Mystery shopping**
- In-depth understanding of the user journey—cost, recourse, and customer support

Objectives of the tool

Fieldwork itinerary
- **Quantitative data collection**: 15 Feb – 3 Mar 2023
- **Qualitative data collection**: 15 Feb – 6 Mar 2023
The study sample focuses on the “next market” that is expected to use digital payments and thus only sampled those in urban and peri-urban settings. The focus was on low-income earners and MSMEs and the sample is therefore not nationally representative. Any inferences made on a country-by-country basis are with respect to the sampled respondents.
The customer research was conducted in five sample countries, namely Cameroon, Malawi, Morocco, Rwanda, and Senegal.

Cross-country averages are based on these five sample countries.

The research complements research done in seven other countries in 2022 using a similar methodology (DRC, Egypt, Ghana, Kenya, Nigeria, Tanzania, Zambia).
SECTION 2
CURRENT STATE OF DIGITAL PAYMENT USE
SECTION 2.1: DIGITAL PAYMENT USAGE ANALYSIS
Digital payment usage across the countries: Rwanda belongs in the emerging category, as only 39% of its population had utilized digital payments in the year before the Global Findex 2017 survey.

Countries have been categorized as nascent, emerging, and leading based on usage data from the Global Findex. Most of the 2023 surveyed countries are in the emerging category.

<table>
<thead>
<tr>
<th>Share of users</th>
<th>Proportion of population using digital payments over the previous year [Global Findex 2021]</th>
<th>Individuals</th>
<th>Proportion of weekly users out of digital payment users [including agent-assisted payments]</th>
<th>MSMEs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Kenya: 78%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emerging cluster</td>
<td>Cameroon: 63%</td>
<td>Malawi: 57%</td>
<td>Nigeria: 83%</td>
<td>Rwanda: 90%</td>
</tr>
<tr>
<td>Nascent cluster</td>
<td>Ghana: 50%</td>
<td>Cameroon: 53%</td>
<td>Malawi: 46%</td>
<td>Nigeria: 22%</td>
</tr>
</tbody>
</table>

Share of "super-users":

- MSMEs: Ghana: 90%, Kenya: 82%, Cameroon: 76%, Malawi: 77%, Nigeria: 75%, Rwanda: 98%, Senegal: 94%, Tanzania: 45%, Zambia: 64%.

*The most recent FinScope data from 2019 shows that approximately 30% of Rwandans transacted digitally in the past 12 months (AFR 2020).*
Cross-country analysis—frequency of digital payment use: Most Rwandan digital payment users make them daily.

- 91% of surveyed digital payment users in Rwanda reported using digital payments at least once a week.
- The fact that 51% of surveyed users make digital payments daily indicates that they have fully embraced digital services and integrated them into their daily routines.
Cross-country analysis—weekly transaction profile:
On average, weekly transaction volumes are relatively high in Rwanda.
User group analysis—weekly transaction profile:
Female-owned MSMEs have a lower reported weekly transaction volume than male-owned MSMEs.

- Individual men and men-owned MSMEs conduct more transactions than women and women-owned MSMEs, respectively.
- No significant age gap exists.
MSMEs are significantly more active on a daily basis and women-owned MSMEs have a higher level of daily digital payment usage than men-owned MSMEs.

Younger individuals use digital transactions less frequently than older individuals, but among MSMEs, a larger share of younger owners are daily users than older ones.
SECTION 2.2: PAYMENT CHANNEL ANALYSIS
USSD dominates as a digital payment channel.

A small share of respondents use either a web browser or a mobile money agent as their primary payment channel.

Payment channel* analysis:
USSD is the dominant payment channel.

Total number of respondents sampled: 122

*Refers to avenues through which payments are issued and received and are verified by banks or other payment providers.
SECTION 2.3: USE CASE ANALYSIS
The five most common weekly payment use cases for individuals and MSMEs and their level of digitalization

<table>
<thead>
<tr>
<th>Use Case</th>
<th>% Digitalized</th>
<th>Use Case</th>
<th>% Digitalized</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Airtime</td>
<td>80%</td>
<td>1 Receive customer payments</td>
<td>95%</td>
</tr>
<tr>
<td>Pay for household goods</td>
<td>74%</td>
<td>2 Airtime money for staff</td>
<td>83%</td>
</tr>
<tr>
<td>Transport</td>
<td>53%</td>
<td>Loan repayments</td>
<td>47%</td>
</tr>
<tr>
<td>Receive salary</td>
<td>70%</td>
<td>Save income</td>
<td>64%</td>
</tr>
<tr>
<td>Save money</td>
<td>77%</td>
<td>Transport money for staff</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Use case analysis:**

There is room to digitalize transport payments and financial product-related payments in Rwanda.

- Most use cases are digitalized among individual respondents, but the surveyed individuals do not use digital payments for transport as much as they do for other use cases.
- For MSMEs, receiving customer payments and small payments such as airtime and transport money for staff are the most digitalized use cases.

**Total number of respondents:** 122
SECTION 3

UNDERSTANDING CUSTOMER BEHAVIOR
SECTION 3.1:
PATHWAY TO HABITUAL USAGE
Before consumers can use a digital payment product, they must have a financial account, physical access to agent or bank locations, and account-related documentation.

**Digital payment usage framework:** The path to habitual digital payment usage follows three phases

- **Access**
- **Early Usage**
  Account holders must have a compelling reason to use a new digital payment method instead of cash, which can depend on the perceived balance between the costs and benefits of use.
- **Habitual Usage**
  Over time and through habituation consumers move from ad hoc transactions to consistent and frequent use of digital payments driven by ease of use, network effects, reliability, recourse, and speed.
Pathway towards habitual digital payment usage:
Barriers and drivers based on the access, early usage, habitual usage framework

**CAN YOU ACCESS IT?**
- Physical access
- Documentation
- Language

**WHAT MOTIVATES INITIAL USE?**
**DRIVERS**
- Use case
- Cost of using cash
- Access to additional services

**BARRIERS**
- Capability
- Privacy
- Trust
- Financial confidence

**WHAT MOTIVATES HABITUAL USE?**
**DRIVERS**
- Ease of use
- Network effects
- Traceability and verification
- Speed

**BARRIERS**
- Reversibility
- Cost perceptions
- Reliability
- Fraud and harassment

[Diagram showing the pathway and barriers/drivers]
Lack of phone access and internet access are perceived to be the most significant access barriers by the non-users in Rwanda.

- non-users do not perceive lack of documentation as a barrier to access, however the lack of ability to read instructions did come up.
Pathway towards habitual usage—access barriers:
Lack of access and internet as barriers.

Lack of phone access

Low-income earners and MSMEs are not able to purchase mobile devices. Lack of mobile phones impedes the use of digital payments.

“When I pay for things like bananas or fruits, I pay in cash because the vendors do not have phones”

Male, 30-44, User, Infrequent income earner

Lack of internet access

Users report poor/lack of internet access affects their transactions processes and may either lose a customer or leave banks without being served.

“I only use cash if the sender doesn’t have money on Mobile Money. Or in case there is no internet.”

Male, 45-55, User, Micro enterprise
Trust is the most significant barrier to early usage in Rwanda, although less pronounced than in some of the other countries.

Data privacy concerns and lack of understanding arise minimally as early usage barriers.
Pathway towards habitual usage—early usage drivers and barriers: 
The drive to early usage is mainly influenced by social peers.

Main drivers

Awareness
Use of SMS, billboards, radio, and TV to sensitize communities about digital payments have led to adoption.

“In [Provider 1] sends us advertisements via SMS and introduces to us the codes we should dial to make payments.”
Female, 30-44, User, Frequent income earner

Influence from friends and relatives
Customers were influenced by their friends and relatives to start using digital payments.

“I was introduced to this [digital payments] by my relatives whom I stayed with because they used to pay using their phones.”
Female 45-55, User, Frequent income earner

Main barriers

Lack of trust
Customers do not trust digital methods when they are not used by everyone.

“Since everybody doesn’t use it, some people don’t trust it.”
Male, 18-29, User, Small enterprise owner

Perception of low literacy levels
Although older people have phones, youth perceive their elders to have low literacy levels and may not understand how to use phones or digital payments.

“Others have phones but there are old people who think that they can’t learn the process of using it.”
Female, 18-29, User, Infrequent income earner

Fraud
Customers are sometimes worried that they may lose their money through digital fraud.

“I fear fraud because conmen may take your money.”
Male, 30-44, Nonuser, Small enterprise owner
Pathway towards habitual usage—habitual usage barriers:
The main usage barrier preventing further usage of digital payments in Rwanda is the unreliable mobile network.

- Unreliable mobile networks are the most significant barrier for respondents in Rwanda. It is also high in comparison to other sampled countries.
- High transactional costs also emerge as a clear barrier to habitual usage in Rwanda.
Pathway towards habitual usage—habitual usage drivers and barriers:
Drivers to usage are in convenience, while the barriers are linked to inconvenience.

**Main drivers**

**Access to other financial services**
Usage among small enterprise is influenced by getting access to savings and loan services.

“When I save money via mobile money, after two weeks I receive interests according to which amount of money I have. Mobile money can give you a credit (loan) when you get unpredicted issue.”

Female, 45-55, User, Small enterprise

**Safety**
Digital payment methods are considered safer to use than cash.

“It is safe more than using cash.”

Female, 30-44, User, Infrequent income earner

**Speed on transaction**
Most users in Rwanda cite using mobile money as fast.

“I am happy because it is fast as the whole transaction has taken less than a minute.”

Male, 18-29, User, Frequent income Earner

**Long-distance transfers**
Digital payments are particularly attractive for long-distance transfers.

“Most of the time I receive it through the phone when they are far from me.”

Female, 18-29, User Infrequent Income Earner

**Main barriers**

**Network challenges**
Users complain that slow networks affect them while making digital transactions.

“They should improve on their connection, because there are times you need money urgently and you can’t easily access it at the bank.”

Female, 18-29, User, Infrequent income earner

**Errors and mistakes**
Customers often make errors inputting the recipient number or amount to send, or during business transactions.

“It happens when someone makes a mistake and pays the money to someone other than the person who was supposed to receive it. Or you can even be sending RWF 1000 and send RWF 10000.”

Female, 18-29, User, Infrequent income earner

**Long refund processes**
Occasionally, users might want to reverse transactions, but the refund process takes long ti

“When we pay online, you can’t easily reverse the transaction. For example, the delivery may be due in 14 days, but you can spend a whole month without receiving it and no refund.”

Female, 18-29, User, Frequent income earner
Example of an app transaction journey

**INDIVIDUAL USE CASE—PURCHASING HOUSEHOLD GOODS**

**Usage drivers**

Instant transaction formation enables instant purchasing of goods.

“I like how order is confirmed automatically without having to show a proof of payment.”

**Step 1**

Activate internet connection and open the website. Press menu button to view goods, select item to purchase.

**Step 2**

Various means of payment pop out to facilitate completion of the payment. Select preferred means of payment among those listed.

**Step 3**

Open payment app to confirm the processing of the payment.

**Step 4**

Input the PIN to confirm the transaction.

**Step 5**

An interface showing successful transactions displays.

**Usage barrier**

Customers are frustrated when they cannot reverse transactions.

“After you have made payment, you can’t easily reverse the transaction. For example, the delivery may be due to 14 days but you can spend a whole month without receiving anything and yet you will have already paid and you can’t reverse, and there is no refund.”

Female, 18-29, User Frequent income earner
Example of a USSD transaction journey

**BUSINESS USE CASE—PAYING STAFF MEMBER**

**Usage drivers**
Transaction charges are transparent (visible before transaction)

"It costs me 20 RWf to send 500 Rwf."

"They don’t charge me to buy airtime, but to send money there are costs."

**Usage barriers**

- Some users struggle with inputting digits in one step for the beneficiary’s phone number, amount sent, and the passcode.
  
  "There are some people who don’t know how to do these steps at once. They have to dial one digit at a time, it takes them long."

- Transaction errors are inevitable.

  "A customer can do a mistake in sending a payment to the wrong number."

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**Step 1**
Dial "provider code" [Beneficiary phone number]* [airtime amount] then #

**Step 2**
Confirm beneficiary’s name

**Step 3**
The debit amount and cost of transaction is shown. Input PIN and send.

**Step 4**
Receive text message confirming that the beneficiary received the funds

**Step 5**
Receive text message confirmation of funds deducted from account

Female, 18-29, User, Small enterprise
SECTION 3.2:
USER GROUP PERSPECTIVES
User group perspectives—deep dive on merchant perspectives:
Meeting customer demands is the primary reason for merchants to adopt digital payments.

| Main early usage driver | To facilitate customer payments | “It was the first service provider company and many of my customers use {provider 1}.”
Female, 45-55, Small enterprise |
|-------------------------|--------------------------------|--------------------------------------------------------------------------------|
| Main habitual usage driver | Bonuses, rewards, and access to savings and credit products | “[…] when I save money on the provider, after two weeks I receive interests according to which amount of money I have.”
Female, 45-55, User, Small enterprise owner |
| Main barrier | Unreliable mobile networks | “The technology fails; when customers want to pay me, the networks fail.”
Male, 30-44, User, Small enterprise |

I buy airtime vouchers and pay wages to my employees. I use digital payments to make all my payments.

I use a certain bank, but it does not have the withdrawal system using the phone, but I can deposit money on my bank account using the phone. However, there is a particular bank where I can deposit money in my bank account using my phone. Through this bank I can also withdraw through the phone or using an easy bank.

I like using mobile money because it is the easiest method of payment and fast. It is not costly, and it helps in financial management.

I once was sending money to someone and put the wrong code. I tried calling the providers, but no one answered. Had they picked my call, I would not have lost my money.”
User group perspectives—deep dive on agent perspectives:
The risk of receiving fake notes is a challenge.

**Business benefits**

- **Free transactions:** Agents can transact freely without incurring transaction costs.
  
  “Looking at mobile money, I pay using Mobile Money pay, because it is free of charge. I use the bank app because it is free of charge too.”
  
  Male 30-44, Agent

- **Real-time information:** Agents who access the internet enjoy getting first-hand and real-time information.
  
  “As an agent, I get information on time, I always enjoy the internet (being online)”
  
  Male 30-44, Agent

**Challenges and risks**

- **Internet access:** Agents may not be able to transact freely due to slow internet access at their business or banks.
  
  “You can leave agents, banks without money, or lose the service because someone can’t pay due to the internet connection which is not functioning”
  
  Male 30-44, Agent

- **Fake/old bank notes:** Agents may not detect fake money and therefore incur business losses. Old notes are unacceptable by some customers and agents have to keep them, which may lead to a loss.
  
  “When I started this agent work, I gained knowledge about it in 2019. I saw and learned how people exchanged money electronically and I liked it because it facilitated them [payments].

  The payment was or is done regardless wherever the person is located, and it inspired me. When I am receiving a payment, I consider the customers’ choices in payment.

  Use of digital payments has helped control the spread of Covid-19 and other transferable diseases.

  However, one can pay you using fake notes and you may not notice if you don’t have a counterfeit money detector. Sometimes I may receive old notes, which some customers reject and may be a loss to my business.”

**Agent case study**

- **Gender:** Male
- **Age:** 30-44
- **Occupation:** Dealer in stationery and electronic devices
SECTION 3.3: CORE COUNTRY THEMES
Core country themes: Deep dive on transaction cost perceptions.

“[...] yes, we don’t like it, but we have no other choice. It has to happen, and I try to understand it.”
**Female, 30-44, User, Small enterprise**

“Withdrawal fees can result in losses for businesses.”

“Costs are generally perceived as fair.”

“Businesses are using digital payments because there is strong demand for it by customers.”

“Businesses can spend from 300-1000 Rwandan Francs daily on transaction costs.”

“‘It depends on the amount you’re withdrawing. For example, if you’re withdrawing 40,000Frw, 600Frw is charged and it is fair.’”
**Female, 30-44, User, Frequent income earner**

“When someone pays me through mobile money without adding withdrawal charges, I can lose maybe 2000 Rwandan Francs per a day.”
**Male, 30-44, User, Small enterprise**

“Withdrawal fees can result in losses for businesses.”

“Costs are generally perceived as fair.”
### Voice of the Customer on How Digital Payments Can Be Improved

<table>
<thead>
<tr>
<th>Category</th>
<th>Suggestions</th>
</tr>
</thead>
</table>
| **Customer training**  | • Customer outreach and awareness building to increase use of digital payments.  
                         | • Offer customer training on digital payments processes and benefits to accommodate more users.                             |
| **Verification process** | • Improve verification process before a transaction is completed.                                                                |
| **Security enhancement** | • Enhance security features to mitigate risks in fraud.                                                                        |
| **Phone access**       | • Determine ways in which more people can access phones to use digital payments extensively.                                   |
| **Internet access**    | • Improve/upgrade internet connectivity for quicker transactions.                                                               |
| **Customer access**    | • Enhance customer access to call centers for support.  
                         | • Encourage customer support to respond promptly to customer calls.                                                         |

*Female, 30-44, Nonuser, Infrequent income earner*

*Female, 45-55, User, Small enterprise owner*

*Male, 30-44, User, Infrequent income earner*
SECTION 4
SYNTHESIS AND CONCLUSION
State of digital payment use in Rwanda

- In Rwanda, the majority of digital payment users make digital payments daily.
- Mobile money using USSD dominates the digital payments landscape, facilitated by network effects unlocked by one large provider.
- Generally, digital payments are perceived as safe and secure for saving and transacting.
- Unstable incomes still affect low-income earners, and the lack of phones remains a problem.
- **Main digital payment service providers**
  - MTN Money
  - Equity Bank
  - Airtel Money
  - Bank of Kigali

Key drivers and barriers of digital payment use

**Drivers**

- **Customer awareness** is the main driver of early usage of digital payments among individuals and small enterprises. This is mostly through radio, TV, billboards, and SMS advertisements.
- **Government policy** enactment to prevent the spread of Covid-19 led to early usage of digital payment methods.
- **Access to additional financial services** such as credit and savings products.

**Barriers**

- **Lack of mobile phones** is the main barrier of access, while **lack of trust** is a barrier to early usage of digital payments.
- **Lack of internet access and network instability** prevents access, causes delays in transactions, and restricts seamless use of digital payments.
- **Making errors** while conducting a transaction is a major challenge users experience and may lead to lost money in some cases.

Core emerging country themes

- **Errors during transactions**: Making errors seems to be a common challenge among customers. Loss of money may result from making mistakes while transacting money.
- **Internet and network**: Unstable internet connections or networks cause transaction delays and may result in the loss of money or loss of customers.
AfricaNenda is an African-led team of experts committed to unlocking the potential of digital financial services for the financially excluded across the continent by accelerating the scale-up of instant and inclusive payment systems. AfricaNenda’s approach is to provide public and private sector stakeholders with technical expertise and the capacity to reduce barriers to digital payments. AfricaNenda wants to enable everybody in Africa to make digital transactions seamlessly and at a low cost wherever they are on the continent by 2030.

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