



DRIVING DIGITAL FINANCIAL SERVICES IN AFRICA THROUGH MERCHANT ACCEPTANCE OF DIGITAL PAYMENTS

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1. INTRODUCTION

Digital financial services (DFS) are rapidly changing the way financial services are offered and accessed. Countries around the world are working to align their infrastructure and increase user capabilities to build cashless economies. Secure, real-time, and ubiquitous digital payment systems are the key to achieving this goal.

The spread of COVID-19 has thrust the use of e-money wallets, e-commerce, and other digital payment avenues to the fore. A 2021 Capgemini World Payments Report states that nearly 75 percent of Middle Eastern and African consumers say their preference for online shopping increased after the pandemic.

Digital Payments and linked services⁵ are crucial to enable access to formal financial services for diverse user segments, including women and micro-merchants. Access to digital payment services can increase the agency of users, especially women and other disadvantaged segments, to send and receive remittances, make airtime and other purchases, promote home-based businesses, and conveniently access government cash transfers in digital form. With an estimated 100 million micro, small and medium enterprises (MSMEs) in Africa,⁶ widespread adoption of digital payments will be the key to fostering the

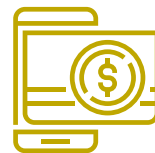
growth of enterprises and mitigating inefficiencies and risks associated with cash transactions. Digital payments can also offer greater access to higher-order financial services such as enterprise credit, value chain payments, record-keeping, business management, and insurance.

Mobile money and FinTech solutions have also drastically increased access to financial services.

As per the GSMA's State of Industry 2021⁷ report, Africa crossed the half billion mobile money accounts mark in 2021.

43%

New mobile money accounts grew 43 percent in Sub-Saharan Africa and 23 percent in the entire African continent.



Mobile wallets are being used primarily for payments, but consumers are now also expanding their engagement to store savings, earn interest on deposits, and access credit.⁸

573

The FinTech industry in Africa has also seen rapid growth with the Africa FinTech Network⁹ reporting 573 FinTechs operating as of 2021.



Globally, Africa has one of the fastest-growing digital payment markets and leads in the mobile money market.

60%

The continent is one of the youngest in the world with roughly 60 percent of the population under the age of 25.²



Africa has also seen a rise in the overall standard of living of its people, leading to an increased demand for various financial services.³

20%

The African e-payments market is estimated to have revenue growth of about 20 percent year-on-year, reaching USD40 billion by 2025.⁴

The majority of FinTechs are reportedly working in the payment solutions space, with Nigeria, Kenya, South Africa, and Egypt being the more developed markets.

For digital payments specifically, there are still challenges in achieving widespread merchant and consumer-level adoption. The 2021 Global Findex report shows that about 47.2 percent of Africans still do not hold a financial account of any kind while a significant gender gap in mobile money account ownership continues across Africa as seen in the table below. Further, the GSMA¹⁰ reports that approximately 19 percent of Sub-Saharan Africa currently does not have access to mobile broadband.

In 2020, an average of only 5-7 percent of all payments in Africa were through electronic or digital channels.¹¹ And while electronic and digital transactions have grown since 2020,¹² cash remains the preferred option in Africa. In 2022, 74 percent of transactions in Morocco, 40 percent in Kenya, and 23 percent in Nigeria were cash-based.¹³ When compared to digitally advanced economies, there is significant scope for African countries to transition to cashless economies. For instance, in Turkey, 50 percent of all payment transactions were done electronically or digitally in 2020 while European countries, including Norway, Finland, and New Zealand logged only two percent of all transactions as cash payments in 2022.

The preference for cash-based transactions in the African continent can be attributed to the perceived convenience of cash, and the absence of additional charges when dealing in cash. This is further supported by a general lack of trust in the financial sector, high transaction costs for digital and electronic

transactions, limited internet connectivity, limited awareness of digital payment solutions, complex digital payment systems that add friction to transactions, and the absence of measures to detect and mitigate fraud.

The rapid evolution of technology in the financial services space has presented both opportunities and challenges for financial policymakers and regulators. New categories of financial services providers, such as FinTechs and aggregators, have gained greater importance and market share. These developments have compelled regulators to take a balanced view of issues, such as promoting innovation vis-a-vis ensuring consumer safety and privacy.¹⁴

AFI's recent publication on the Current State of Practice Report on Digital Financial Services Regulation highlights that all AFI regions have a Payment System Act or law to govern advances in digital payments. Furthermore, in Sub-Saharan Africa, countries including Kenya, Ghana, and Namibia also have a National Payment System Vision and Strategy to align developments in the space with a larger strategic framework.¹⁵

One way to maximize the adoption of digital payments in the economy is by digitizing merchant payments. Merchants can be central nodes in creating cashless economies, as they provide links to receive payments from customers, make payments to suppliers, and make recurring wage payments to their employees. In this special report, we explore how financial sector regulators across Africa can support the adoption of digital payments by merchants.



Significant gender gap in mobile money account ownership continues across Africa



APPROACH

An enabling ecosystem is necessary for any digital (merchant) payment system to succeed. Especially at the macro level, regulatory initiatives and policy guidance can be crucial in enhancing the uptake of digital financial services, in general, and digital payments in particular. Consequently, we have used an ecosystem approach to develop a framework (Figure 1) for analyzing the digital merchant payments landscape in Africa. Readers should note that this is a high-level analysis framework, and while the attempt is to capture all relevant initiatives that impact the adoption of merchant payments, it may not reflect all market peculiarities. However, the information presented through the framework can inform further research and market development initiatives at the country level.

The report is divided into five chapters:

- > **Chapter 2** details the current landscape of digital payments in Africa from the regulator as well as the market perspective.
- > **Chapter 3** looks at an analysis of priorities across different central banks in Africa to support the adoption of digital payments as well as the challenges and opportunities they face toward widespread adoption.

- > **Chapter 4** details the prerequisites from the perspective of regulators, that are imperative to enable the growth of merchant-led digital payments.
- > **Chapter 5** details the key enablers that would support the outsized growth of merchant-led digital payments.
- > **Chapter 6** underlines the key observations and recommendations as part of the study, to support regulators in formulating enabling payment policies that foster innovation.

FIGURE 1: ANALYSIS FRAMEWORK



Source: Alliance for Financial Inclusion

LANDSCAPE OF DIGITAL MERCHANT PAYMENTS IN AFRICA



2.1 DIGITAL MERCHANT PAYMENTS TRENDS IN AFRICA

Africa’s fifty-four countries represent vast variations in financial services markets, in terms of digital payments trends, infrastructure, and regulatory approaches.¹⁶

With the emergence of mobile money and FinTech solutions, merchants and consumers in Africa are increasingly benefiting from the proliferation of alternative payment methods and using them to pay bills, purchase utilities, and make online payments to merchants via mobile wallets, USSD, cards, and other solutions (Figure 2).

Instant payments have emerged as a key component within the digital finance ecosystem, with many nations developing their inclusive instant payment networks to further financial inclusion. Instant payments help reduce the cost of commerce for merchants, increase their efficiency, and fuel the growth of this segment through interoperability.¹⁷

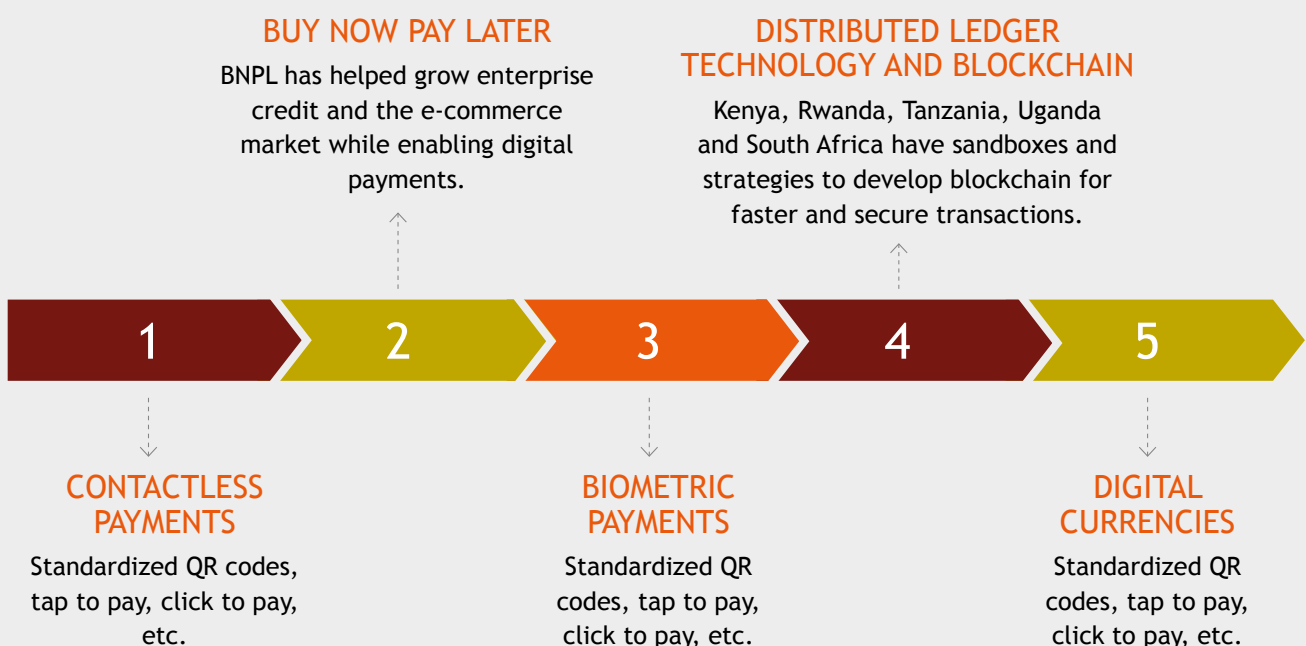


The use of standard QR codes, mostly facilitated by central banks, has made digital payments interoperable, thereby reducing the need to maintain merchant accounts with multiple payment service providers and Point of Sale (POS) devices.

The Ghana Interbank Payment and Settlement System (GHIPSS) and High-tech Payment Systems (HPS), built Africa’s first integrated QR code, followed by Egypt and Nigeria, thus easing payment acceptance for merchants.

VISA and MasterCard have also expanded the use of contactless payments in Africa. VISA’s software-based POS solutions like Tap to Pay,¹⁸ payWave,¹⁹ and Click to Pay²⁰ and MasterCard’s Digital First²¹ program provides solutions related to e-commerce, QR code, and Tap and Go through linkages with banks. These solutions which deploy mobile phones as POS terminals have led to an increase in the acceptance of digital payments by merchants.²²

FIGURE 2: EMERGING TRENDS IN DIGITAL PAYMENTS



The Buy Now Pay Later (BNPL) market has given a boost to the enterprise credit space in Africa and is estimated to be worth USD7.8 billion in 2022. Firms like CredPal, LipaLater, Sympl, Chari, and Carbon are expanding access to finance for merchants by offering interest-free credit.

MasterCard installments²³ for BNPL, MasterCard Simplify Commerce²⁴ for SMEs, and VISA's Flostore²⁵ in embedded finance are some solutions designed to encourage digital payments for merchants.

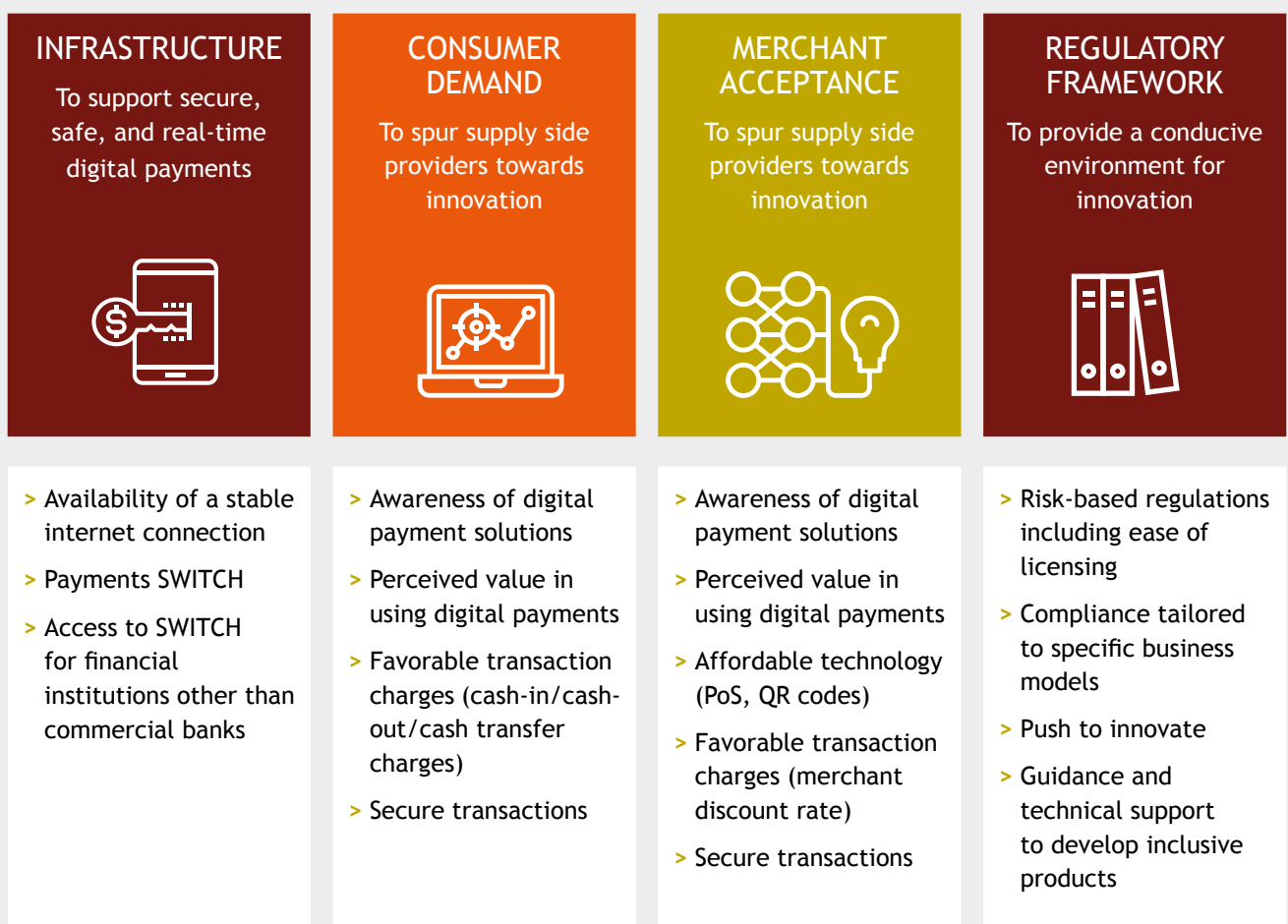
Moreover, biometrics are increasingly being used in digital payments. MasterCard's Community Pass and Paycode have launched an initiative to provide digital identities to 30 million people in remote African regions by 2025 using a biometric smart card.²⁶

Nigeria's Torche is emulating India's Aadhar program to develop a biometric payments infrastructure while Ghana has successfully linked its merchants to its national biometric ID to enable digital financial histories and improve access to the payment infrastructure.²⁷

Blockchain technology is being explored to make payments secure and affordable. Kenya and Uganda have national blockchain strategies,²⁸ to understand and streamline the use of blockchain in financial services. On the industry side, FinTechs, such as Interswitch²⁹ and Wave, have integrated blockchain for faster and safer digital transactions for merchants and consumers.³⁰

A review of the digital payments landscape across diverse economies shows that the growth of this industry is largely dependent on the four key factors detailed below (Figure 3):

FIGURE 3: FACTORS DRIVING THE GROWTH OF DIGITAL PAYMENTS

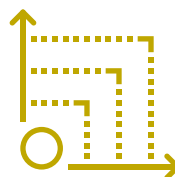


- a. Infrastructure to support secure and real-time digital payments
- b. Consumer demand
- c. Merchant acceptance
- d. Regulatory framework to support innovation

Each of these factors is driven by multiple elements that can ultimately create an enabling ecosystem for digital payments to thrive.

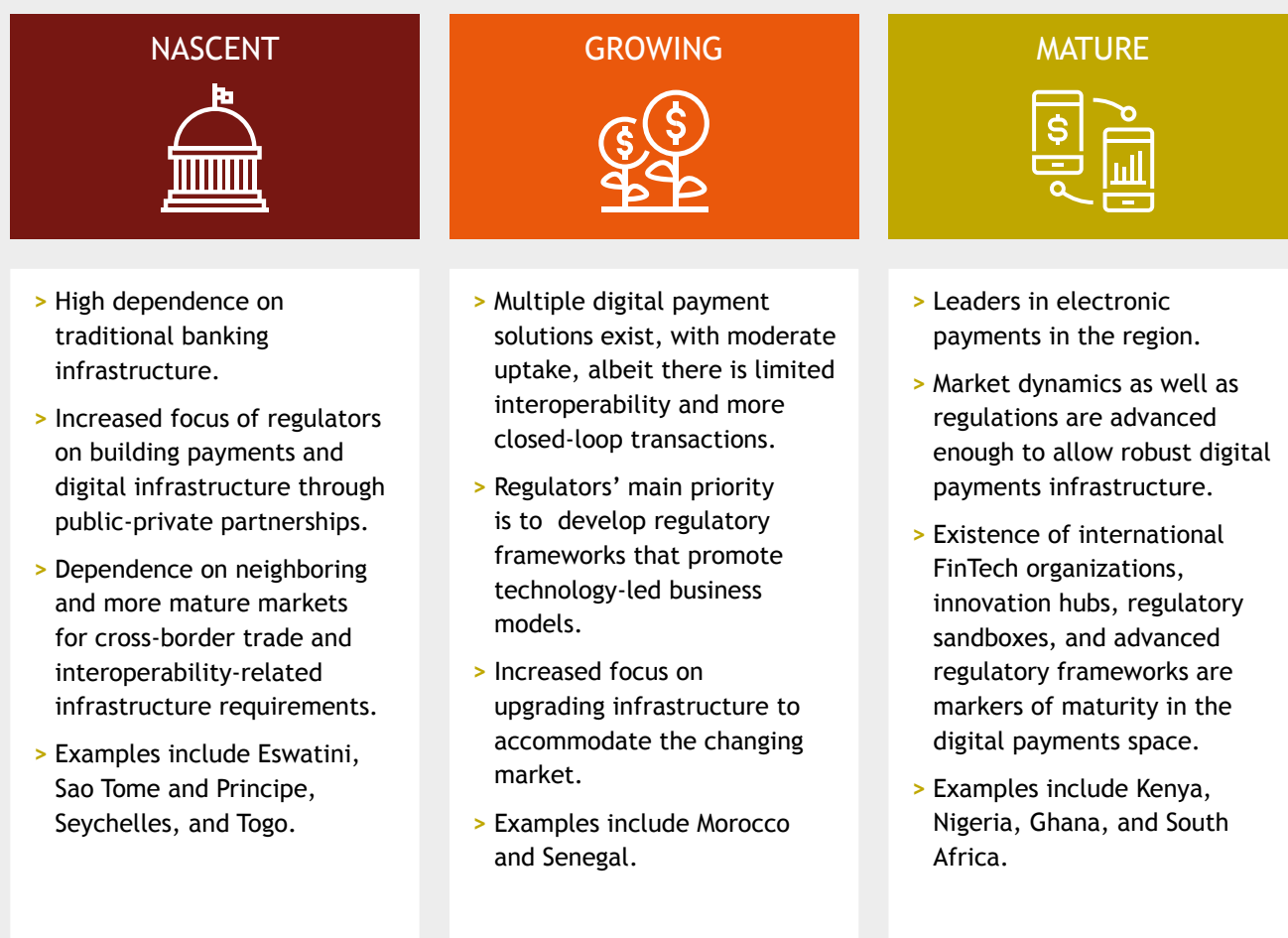
Based on the above key factors, we can see that countries across Africa can be placed in three stages of digital payments market growth: Nascent, Growing, and Mature. Figure 4 provides broad characteristics of each of the three market stages.

While the growth stages are linear in progression, each country would experience unique journeys across each stage. For instance, countries in the nascent stage would have the opportunity to observe and adopt the best practices of mature markets and may introduce requisite provisions in their regulatory frameworks akin to those used by mature countries.



The move from one stage of growth to another is guided by whether and how the country's policy and market landscape move in tandem.

FIGURE 4: STAGES OF GROWTH FOR DIGITAL PAYMENTS




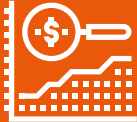

2.2 REGULATORY APPROACHES FOR DIGITAL PAYMENTS IN AFRICA

Robust regulatory frameworks and guidelines support stakeholders at the country level to adapt to innovations, support emerging business models, foster competition, and maintain customer protection safeguards.

The development of legal and regulatory laws and guidelines in any country can be classified based on three approaches: Regulator-driven, Industry-driven, and a Collaborative approach (Figure 5).

While the mentioned approaches demarcate different strategies, in practice, central banks may use elements of one or more approaches as the digital payment ecosystem evolves. For instance, while the Central Bank of Seychelles takes a pro Industry-driven approach, it is also in the process of setting up a regulatory sandbox to encourage private sector innovation in digital financial services - a key element of the collaborative approach. An understanding of the different approaches is important to have a clear line of thought for market development.

FIGURE 5: REGULATORY APPROACHES

REGULATOR-DRIVEN	INDUSTRY-DRIVEN	COLLABORATIVE
 <ul style="list-style-type: none"> > To minimize adverse risks to consumers and the market at large, regulators use the test-and-learn approach. > New business models are tested for some time, before allowing them to gain a full-fledged license. <hr/> <ul style="list-style-type: none"> > Difficult to maintain the desired level of engagement and time to turn around licenses at a large scale. > Used in nascent markets where there is limited participation from the existing industry. 	 <ul style="list-style-type: none"> > Limited intervention from the regulator, who acts as an observer in its supervisory capacity. > Regulators intervene, when the need arises, to issue guidelines, enforce responsible finance practices, and update regulatory frameworks. > Allows new business models and partnerships to function and consolidate based on market dynamics over time largely governed by industry standards and codes of conduct. <hr/> <ul style="list-style-type: none"> > Usually adopted in growing and mature economies where market forces are proactive and there are multiple service providers. > Market forces may need corrective action in terms of data privacy and protection, predatory pricing, grievance redress mechanisms, etc. 	 <ul style="list-style-type: none"> > Regulators set up provisions for regulatory sandboxes, innovation hubs, and accelerators. > Allows them to be proactive in designing regulations for emerging business cases and nudge the industry toward issues that need to be explored. > Allows regulators to set guidelines early on and help the industry evolve in a more structured manner. <hr/> <ul style="list-style-type: none"> > Innovation hubs involve setting up a dedicated link between industry players and regulators for consultation, resources, and support for testing and implementing products. > Enable partnerships among policy-makers, FinTechs, and other institutions to develop shared technologies in an open ecosystem.

2.3 REGULATORY PRIORITIES AND POINTS OF INTERVENTION TO ENHANCE THE UPTAKE OF DIGITAL PAYMENTS³¹

A National Payments Strategy (NPS) is usually the foundational document to support the development of digital payments in any country, laying out the key goals to create an enabling digital payments ecosystem, typically in a five-year timeframe. Key pillars identified within the NPS act as guidelines for central banks and other relevant stakeholders to further develop roadmaps for achieving their desired goals.

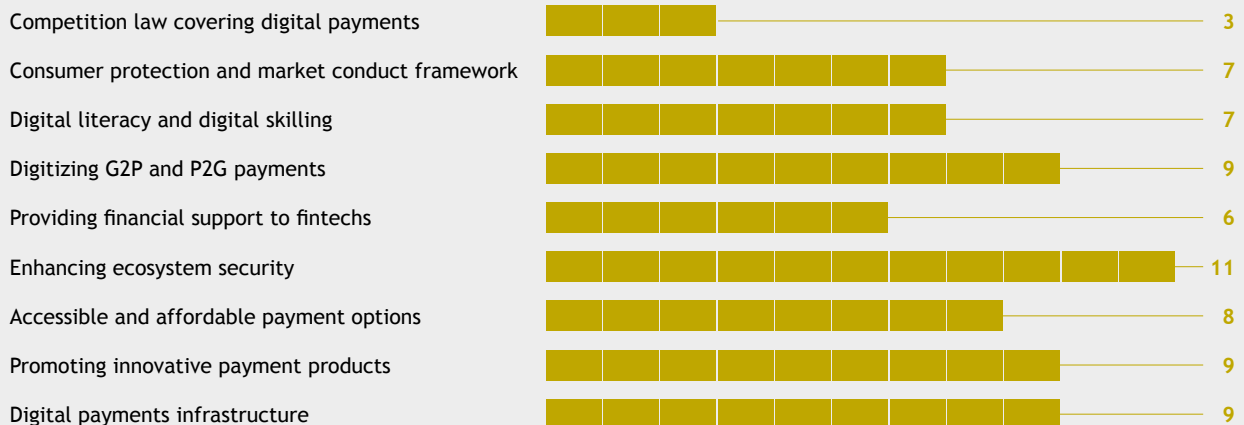
A survey of eleven member institutions across Africa shows the key pillars and thematic areas that form part of their NPS. To develop a payments market, central banks primarily engage with FSPs. However, the regulatory guidelines for FSPs have a significant impact on the entire value chain for merchants, as well as the product usage journey undertaken by end users.

Based on insights from literature reviews and primary research with financial sector regulators, a representation of the merchant value chain and consumer journey was developed for the adoption of digital payments. Annexure I provides a mapping of factors that influence the adoption of digital payments by merchants and users, respectively, at different stages as well as the role (direct or indirect) that central banks can play as an intervening authority.

AFI NETWORK INSIGHTS 1: KEY PILLARS OF A NATIONAL PAYMENTS STRATEGY

■ Number of member institutions where that pillar forms part of the NPS

11 regulators within Africa were asked about the key pillars of their National Payments Strategy



Source: Alliance for Financial Inclusion

2.4 MERCHANT PAYMENTS ARE AN EMERGING AREA FOR FSPs IN AFRICA

Merchants, categorized as micro-entrepreneurs, are a largely untapped segment for banks and other financial institutions in Africa. Micro-entrepreneurs tend to have bootstrapped businesses and operate as informal enterprises. They deal in small-value, high-frequency transactions on a daily basis. However, only about five percent of all payment transactions in Africa are digitized.³²

Even with the widespread use of mobile money and other digital payment modes among consumers, merchants tend to prefer dealing in cash, due to perceived convenience, preference to stay out of tax brackets, and the limited affordability of digital payment solutions. For micro-merchants in the informal sector, especially those that are women-owned and operated, the exclusion from the digital payment ecosystem can frequently be attributed to the lack of identity documents needed for KYC processes, the risk of fraud associated with digital transactions and a lack of digital and financial skills needed to be able to accept and record digital payments.

In recent years, with the near ubiquitous availability of digital payment solutions, the push by governments to formalize businesses, incentives offered by central banks to shift to digital payments, growing potential for e-commerce, and above all, the compelling situation imposed by the pandemic, merchants are now turning to online channels to expand their consumer base and enhance the sustainability of their businesses.

This has introduced a pull factor for FinTechs, mobile money operators, payment aggregators, and even traditional commercial banks to consider micro-merchants as a distinct user segment with unique needs and business potential. However, merchant acquisitions need to be independently profitable for banks and providers to expand the market.

In a majority of countries in Africa, formal financial institutions, such as commercial banks, have strong infrastructure, with access to payment switches and a greater market share.

They can effectively use their existing network and help in bridging the digital payments divide for merchants.

For instance, in South Africa, roughly 85 percent of the population is banked and the country has a strong dependence on commercial banks to offer digital payment services.³³

Banks, in such countries, can support the adoption of digital payments by merchants by offering them hardware solutions, such as access to ATMs, POS machines, and merchant-specific cards. There is also an opportunity to partner with FinTechs to offer alternative credit through digital payment footprints, database management, accounting solutions, etc.

Apart from commercial banks, mobile money has gained immense popularity across Africa in the past decade, becoming the most penetrated digital payment mode in Africa, with 157 mobile money providers operating in Sub-Saharan Africa serving more than 200 million customers.³⁴ The penetration of mobile money has made digital payments accessible for low and middle-income users, including merchants.

Multiple mobile money operators in a given geography, each with their own e-wallets with diverse features, have led to the need for greater interoperability. To offset the complex web of wallet-based transactions, countries like Kenya, Ghana, Rwanda, Tanzania, and Madagascar have achieved interoperability among wallets. This has enabled merchants to undertake seamless and convenient transactions across different wallets, benefiting both the merchant and consumer. Further, solutions developed by the private sector, such as the M1ST by Boku and interoperability standards for mobile money by the Mojaloop Foundation are making mobile money-based transactions more accessible and seamless.³⁵



The emergence of FinTechs has been largely responsible for bringing an increasing number of merchants online.

FinTech-led digital payment solutions have expanded to areas of embedded finance, vertical integration with suppliers, and value-added services, such as payment aggregation, accounting, and analysis tools to understand consumer trends based on payment data. FinTechs are also at the forefront of building solutions to enable cross-border trade, which has immense potential to fuel business growth for merchants.

BOX 1: STRATEGIES TO BOOST DIGITAL MERCHANT PAYMENTS ACROSS AFRICA

We highlight a few key country-level initiatives that have the potential to exponentially boost the adoption of merchant-led digital payments:

ZAMBIA AND GHANA

Zambia and Ghana have implemented strategies to boost digital payment acceptance and innovation through a biometric national ID system, universal QR codes, active use of gender-disaggregated data, and a regulatory sandbox. Regulatory sandboxes to boost digital payments are also present in Egypt, Sierra Leone, Kenya, Rwanda, Mauritius, Mozambique, and Ghana, among others.



ETHIOPIA

Ethiopia is rolling out a Digital Ethiopia program to digitize its largest industries - agriculture, manufacturing, and tourism - by building enabling systems such as Digital IDs, digital payments infrastructure, and cybersecurity. Fayda is their Digital ID system.



SOUTH AFRICA

South Africa is implementing Project Future to modernize its payments infrastructure in line with ISO20022. Among other benefits, the advancement will bring about support to small businesses, improve the formalization of the economy, and ultimately offer an alternative to cash.



EGYPT

Egypt has launched two initiatives to boost digital merchant payments: The e-commerce initiative and the POS initiative. Under the e-commerce initiative (2018), the CBE waived online sign-up fees for merchants with a Payment Acceptance License. As a result, the number of online merchants has increased from 2,500 to 6,500 merchants. Under the POS initiative (2020), 300,000 new electronic POS machines were deployed, bringing up the total number of POS machines at merchant points to 850,000.

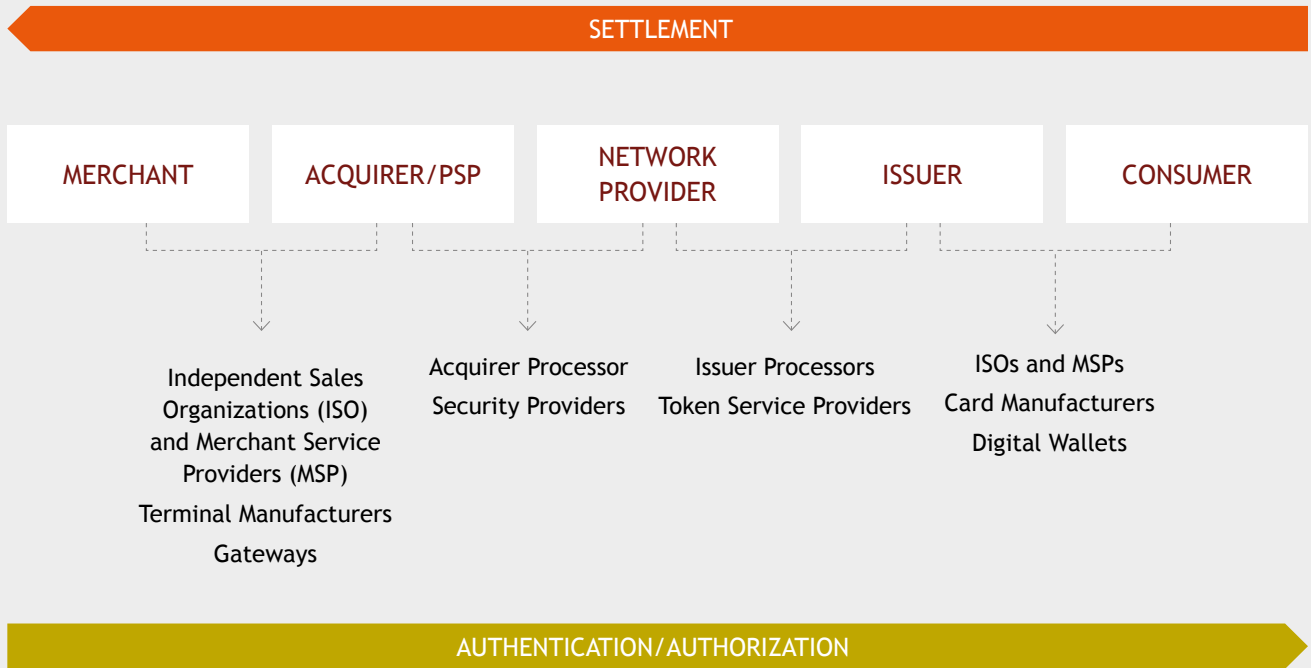


THE AFRICAN UNION COMMISSION AND ID4D

The African Union Commission, in partnership with ID4D (Identification for Development - a World Bank initiative), is working towards “The African Union Interoperability Framework” to achieve digital ID interoperability in Africa enabling the use of digital payments and services across the continent. This will also ease friction and allow free trade (AfCFTA) in Africa.



FIGURE 6: DIGITAL PAYMENTS VALUE CHAIN



The digital payments value chain has multiple nodes. Between the merchant and the acquirer or payment service provider, entities, such as independent sales organizations, merchant service providers, and gateway solutions act as distribution channels and offer affiliated services.

Acquirer processors and security providers are key stakeholders offering technical support for setting up robust and stable infrastructure and solutions to de-risk merchant transactions.

Similar partnerships are seen between the network provider and the issuer, that is the bank or other financial institution offering the service. The last node is between the issuer (bank) and the consumer, where payment gateways, digital wallets, merchant service providers, etc. enable seamless digital transactions.

Source: Alliance for Financial Inclusion

2.5 ACCESS TO PAYMENTS SWITCH FOR FINANCIAL INSTITUTIONS

Payment switches unite financial service stakeholders and play a key role in financial inclusion by enabling the creation of new payment channels and access points. They also promote instant payments and lower costs in the payment value chain, helping democratize the financial services sector.

Greater inclusion of formal financial institutions in the payments switch can also offer opportunities for regulators to generate use cases for digital payments. For instance, interoperability created due to access to payment switches can help digitize and ease access to G2P benefits, by offering a choice of channels for beneficiaries to access government cash transfers.

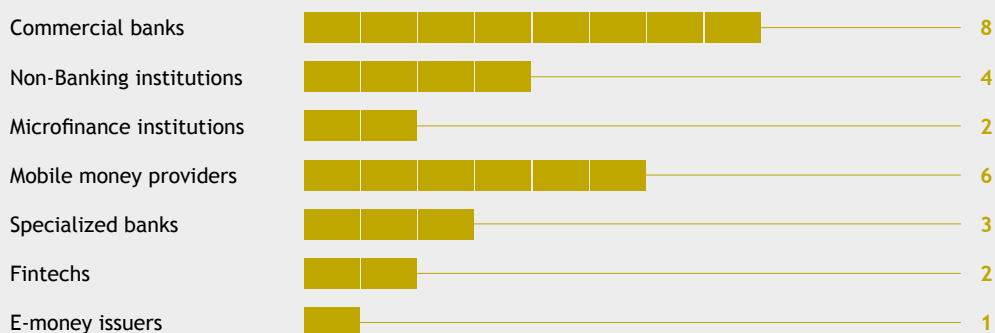
Currently, most countries prefer to limit access to the switch to direct participants, such as commercial banks. Member countries of BCEAO have not integrated MNOs in the payment switch. Countries, including Zambia, Egypt, Morocco, and Zimbabwe have yet to allow the integration of FinTechs in the national payments switch. In Ghana, while commercial banks are permitted to connect directly to the switch, other institutions such as microfinance institutions (MFIs) and specialized-deposit taking Institutions (SDIs) are allowed to connect to the switch, only through their mother bank, the ARB Apex Bank. Namibia, on the other hand, allows direct participation of non-banks in the switch as well as the RTGS, through its PSD-6 regulation.

Exclusion from a payments switch limits the capability of institutions to scale their operations due to higher costs, delays, and the lack of required licenses to conduct cross-border trade. In addition, it hampers the efficiency of the payment system due to increasing instances of failed transactions, redundancies, and reduced system efficiency. It is important to note that the exclusion of other financial service providers from the switch does have a bearing on the growth of digital merchant payments services in the country.

AFI NETWORK INSIGHTS 2: ACCESS TO PAYMENTS SWITCH

■ Number of member institutions allowing access to Payments Switch for a particular institution

11 regulators within Africa were asked about institutional access to Payments Switch



Note: Of the surveyed countries, Eswatini, Madagascar, and the Seychelles do not currently have a payments switch.

Source: Alliance for Financial Inclusion

CHALLENGES AND OPPORTUNITIES WITH THE ADOPTION OF DIGITAL PAYMENTS

3



Using a pay by phone scanner in a cafe. (stockstudioXiStock)

The development of inclusive digital payment systems is not without its challenges. However, the opportunities that digital payments can bring to overall economic development are also numerous.

It is, therefore, important for regulators to have a deeper understanding of both the challenges and opportunities, particularly of unintended consequences for disadvantaged groups, to be able to develop

regulatory frameworks and guide stakeholders toward the adoption of digital financial services in a way that adds value to both merchants and users, while being inclusive and sustainable.

Figures 7 and 8 provide the various opportunities presented by digital payments to different stakeholders as well as the challenges they face in this direction.

FIGURE 7: OPPORTUNITIES FOR STAKEHOLDERS IN SUPPORTING DIGITAL PAYMENTS ADOPTION

MERCHANTS	LOW AND MIDDLE-INCOME CONSUMERS	FINANCE SERVICE PROVIDERS	REGULATORS
<ul style="list-style-type: none"> > Expansion of the customer base through e-commerce and cross-border trade. > Improved access to finance for those with limited or no credit history. > Convenient storage and transfer of electronic cash, reduced risk of theft in transit, especially when moving larger volumes. > Creation of customer databases to analyze trends and behaviors for expanding and improving the product suite. > Better customer engagement through low-cost solutions. > Digitization of value chain linkages can have network effects, helping merchants expand and enter cross-border markets as well. 	<ul style="list-style-type: none"> > Access to a wider range of products and services. > Instant online payments empower people who face limited mobility by providing products and services at their doorstep. > Easy digital payment interfaces can help build capabilities and confidence to use more technology-enabled products for new users. > A digital footprint can be used as a parameter to enable access to alternative credit. 	<ul style="list-style-type: none"> > Reduced operational costs and risks from handling cash. > Provision of advanced, data-led, value-added services to further encourage large-scale use of digital payments. > Improved efficiency and quality of service delivery. > Development of embedded finance products for 'banking-as-a-service' to consumers across the value chain. 	<ul style="list-style-type: none"> > Potential to reduce the financial inclusion gap. > Increase in the tax base and revenues. > Reduce transaction costs and democratize usage of formal financial services. > Increase in transparency and traceability of systems. > Promotion of cross-border trade and the seamless movement of resources for macroeconomic growth. > Integrated infrastructure for digital payments can reduce friction, redundancies, and leakages in reaching money to intended beneficiaries, thereby creating the desired impact.

Source: Alliance for Financial Inclusion

FIGURE 8: CHALLENGES FOR STAKEHOLDERS IN SUPPORTING DIGITAL PAYMENTS ADOPTION

MERCHANTS	LOW AND MIDDLE-INCOME CONSUMERS	FINANCE SERVICE PROVIDERS	REGULATORS
<ul style="list-style-type: none"> >> Limited access to infrastructure - electricity and internet. > Preference for cash-based transactions. > Lack of access to bank accounts, and limited agency to explore digitalization for women entrepreneurs. > High fees and other charges (e.g. MDR). > Limited digital capability to use technology solutions and dashboards. > Lack of disposable income to invest in digitalization. > Limited bandwidth to maintain multiple digital payment systems for reconciliation of online payments. > Lack of interoperability necessitating use of multiple devices and interfaces. 	<ul style="list-style-type: none"> > Limited access to infrastructure - electricity and internet. > Limited access to mobile phones, bank accounts, and other access points. > Low level of (digital) financial literacy. > Lack of customer-centric digital payment interfaces, limited capability to use technology independently and loss aversion bias keep people from using digital payments. > Lack of trust in digital platforms. > Socio-cultural barriers restrict mobility for women. > Minimum balance requirements and transaction costs make digital services unaffordable. 	<ul style="list-style-type: none"> > Legacy systems make pivoting to tech-based products difficult for banks. > Limited access to robust digital infrastructure can render tech-based business models inefficient and sub-optimal. > Entry barriers due to the complexity of licensing and compliance requirements in different regions and countries. > Lack of resources (financial and human) to comply with data privacy and cybersecurity requirements. > Fragmented marketplace, and limited scope to reach scale in the absence of interoperable payment systems. > Scope and terms of partnership between FSPs are not properly defined. > Limited investment capability in research and development to address specific market needs. 	<ul style="list-style-type: none"> > Pressure for regulations to catch up with the rapid pace of technological advancements and provide a stable regulatory environment for new entrants. > Lack of resources and technical capacity to build a payment infrastructure. > Limited harmonization among systems and policies within their own jurisdictions as well as at the regional level. > Balancing compliance and risk management without stifling innovation has proven to be challenging.

PRECONDITIONS FOR THE ADOPTION OF DIGITAL PAYMENTS BY MERCHANTS

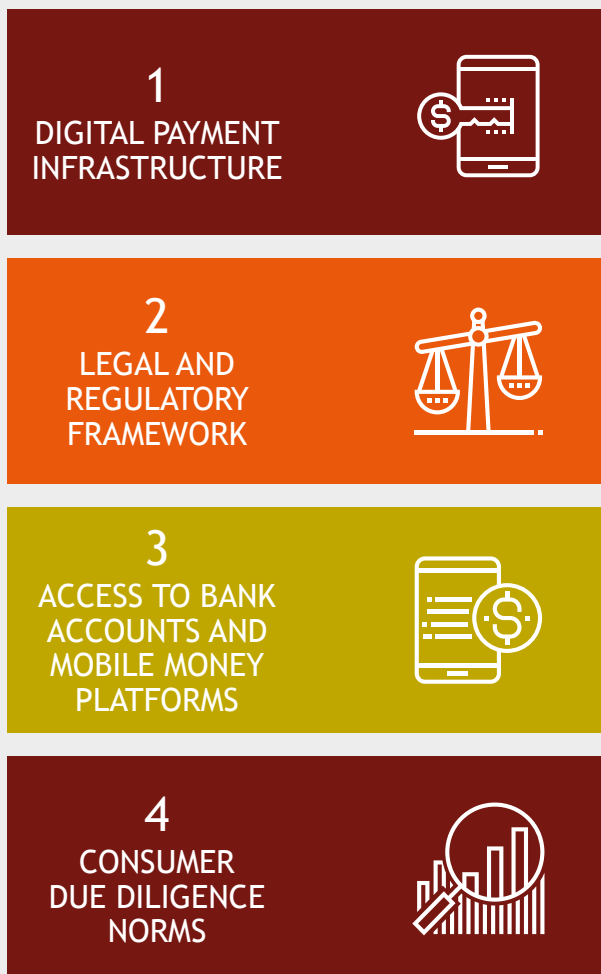
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Preconditions are typically linked with a robust infrastructure to support digital payments, universal access to digital accounts, and regulatory frameworks to enable responsible digital payments (Figure 9).

This chapter explores the key preconditions that support the adoption of digital merchant payments and how these aspects are seen across Africa:

FIGURE 9: PRE-CONDITIONS FOR THE ADOPTION OF DIGITAL MERCHANT PAYMENTS



Source: Alliance for Financial Inclusion

4.1 EXISTENCE OF A ROBUST DIGITAL PAYMENT INFRASTRUCTURE

The growth of digital payments depends on the stability of the underlying infrastructure. This includes access to ICT and energy infrastructure, specifically electricity and high-speed internet; the availability of hardware infrastructure including POS devices, micro-ATMs, etc. and the penetration of smartphones to allow for greater access to and usage of digital payment solutions.

About 570 million people did not have access to electricity in Africa as of 2019,³⁶ while roughly 480 million Africans currently have access to mobile internet.

22%

Only 22 percent of the continent has access to high-speed broadband internet.

Access to POS devices has been crucial in supporting card banking and other payments. In recent years, POS devices have seen high penetration across Africa, for both offline and online payments.

With NFC technology and smartphone use, POS can offer an omnichannel service where consumers have access to payment options through cards as well as online payments, in addition to helping merchants become a distribution point for small ticket services like the sale of airtime and utility bills.

While the provision of ICT, energy infrastructure, and the internet is outside the mandate of central banks, the provision of these services is integral to enabling payment adoption. Central banks can thus include these as pre-conditions for the robust development of the digital merchant payment ecosystem in their jurisdictions. They can also liaise with relevant government departments and ministries to stay abreast of any progress and adapt their strategic initiatives to build on the strengths of the existing infrastructure.

4.2 LEGAL AND REGULATORY ENVIRONMENT FOR DIGITAL FINANCIAL SERVICES

While countries across Africa are showing a growing propensity towards the adoption of digital payments, the legal and regulatory framework to support a balanced ecosystem still needs to catch up.

Conversations with central bank regulators in Africa revealed that payments-related policy developments and reviews are undertaken at frequent intervals, but the Payment System Acts are often updated with much less frequency, and thus, may not accurately reflect the changing regulatory environment in a particular time period. AFI's Digital Financial Services regulation: Current State of Practice 2022³⁷ report provides an overview of the DFS regulatory landscape, best practices, and gaps in AFI member countries.

The Toolkit on Gender Inclusive Policy Development³⁸ also provides guidance on how to ensure that policy development is gender sensitive and fully inclusive for women, and the principles can also be applied to other disadvantaged groups who will benefit from using DFS, including forcibly displaced people and those living with a disability.

The level of regulation for payment service providers varies based on the nature of these institutions. While traditional banks are subject to higher regulatory compliance due to their deposit-taking activities, non-bank institutions are often governed by more lenient standards or remain unregulated altogether.

In countries where policymakers are more cautious of new technology, FinTechs face stringent compliance requirements that could, in turn, result in over-regulation. On the other hand, in countries where FinTechs can operate only through partnerships with formal financial institutions, such as commercial banks and MFIs, the burden of compliance is reduced, as the primary customer-facing entity is the commercial bank.

The level of regulation and compliance ultimately has a bearing on the potential growth of different business models within the payments sector and also guides the extent to which institutions can undertake innovations and focus on different user segments, including small and micro merchants.

4.3 ACCESS TO BANK ACCOUNTS AND MOBILE MONEY PLATFORMS FOR MERCHANTS

Although some countries in Africa have a highly banked population, for micro-merchants, this may not automatically lead to use of digital payments.

Sub-Saharan Africa has all eleven countries in the world where the proportion of adults having mobile money accounts is more than the proportion of adults having a bank account.³⁹ Access to digital payment platforms is more constrained for women merchants who are more likely to lack access to mobile phones⁴⁰ and bank accounts. In Sub-Saharan Africa, women are 13 percent less likely than men to have mobile phones.

The use of digital financial services holds immense potential for women's economic empowerment and the promotion of entrepreneurship. A study in Kenya showed that mobile money services enabled women-led households to increase their savings by more than 20 percent and allowed 185,000 women to leave agricultural activities to develop their businesses. As a result, women-led households saw a reduction in extreme poverty by 22 percent.⁴¹ Research from Tanzania shows that merchants are able to develop savings behavior with targeted financial literacy activities. This initiative has also shown promise in increasing merchant adoption of financial services, especially for women.⁴²

However, digital finance policies and products tend to not cater to the preferences and needs of women due to their lack of opportunities in participating in decision-making - both at a household and institutional level.⁴³ CGAP reports that women are more at risk when using digital financial services due to their lower resilience to withstand fraud, gendered algorithmic bias, the complexity of products and services, limiting social norms, and low digital and financial skills due to unequal educational opportunities. Poor experiences also further reduce trust in DFS and result in lower participation by women.⁴⁴ Enabling universal access to financial services through bank accounts and mobile money accounts is generally a key pillar in a country's National Financial Inclusion Strategy (NFIS). Identifying merchants and the specific inclusion of women merchants as a target segment in the NFIS can help central banks to identify challenges faced by merchants and implement appropriate gender-sensitive solutions.

**BOX 2: REGULATORY REGIMES SPECIFIC TO LICENSING
FOR NON-BANK INSTITUTIONS ACROSS AFRICA****SOUTH AFRICA**

In South Africa, non-banks are required to partner with financial institutions to carry out payment services. In such a scenario, non-banking institutions need strategic buy-in from banking institutions to partner with them, co-create products, support cross-selling to existing customers, and expand the customer base more suited to use digital solutions.

**GHANA**

Ghana provides specific licenses to both bank and non-bank entities, tailored to their nature and activities. Egypt currently has a bank-led model where Fintechs and PSPs are required to partner with a bank to provide financial services. CBE's new banking law will allow direct licensing of Fintechs. This enables firms to operate in a clearly demarcated market and carry out activities without much dependence on other stakeholders. This could also foster competition, and encourage legacy institutions to innovate to stay relevant and result in a faster time to market for products and services.

**KENYA**

In Kenya, telecom companies are allowed to establish a mobile money business under their existing license, which is non-financial in nature. While this reduces entry barriers for MNOs and brings greater convenience in conducting business, it could mean that the MNO so established would not be under the licensing purview of the central bank. The central bank does, however, oversee mobile money transfer services. Safaricom is for instance under the purview of seven regulatory authorities for varied activities.

**BOX 3: ADVANCES IN E-KYC ACROSS AFRICA****NGERIA**

Nigeria has a three-tiered KYC system classified by the value of the accounts - small, medium, and large, based on the value and volume of transactions. The AML/CFT threshold varies according to the tier. The Bank Verification Number (BVN) issued by the Central Bank of Nigeria makes use of a biometric ID and links it to the customer's bank account via a central database. This makes access easier, reduces redundancies and ghost IDs, and is also cost-efficient.

**MALAWI, SOUTH AFRICA, GHANA,
AND BOTSWANA**

Malawi, South Africa, Ghana, and Botswana have e-KYC processes in place. e-KYC allows the use of electronic documents for authorizing transactions and eliminates the need for a physical presence, thereby making it easier for people with limited mobility and in remote areas to access financial services.

**ESWATINI**

Eswatini has established interoperability within the KYC process required for purchasing a SIM card and setting up a mobile money account, making the process for onboarding seamless.

**EGYPT**

Egypt has incorporated a tiered KYC system. The Central Bank of Egypt has also issued national ID cards with a gender identifier, to ease CDD and reduce the gender gap in access to financial services.



4.4 CONSUMER DUE DILIGENCE NORMS

A favorable consumer due diligence (CDD) framework for any country is anchored in its policies on national ID and KYC.

AFI’s publication on the Current State of Practice in DFS Policy (2022) establishes a positive correlation between regulation around identity and account ownership, and that countries with e-KYC and Digital ID regulations have a reduced proportion of citizens citing lack of documentation for not having a financial account.⁴⁵

ESTABLISHING IDENTITY THROUGH NATIONAL ID

In Sub-Saharan Africa, 105 million adults (16 percent of adults) are unbanked and have no ID. Furthermore, women in Africa are 13 percent more likely to be unbanked and excluded from a national identity system, than men.

Exclusion from the national ID system affects the ability of consumers and merchants to have access to and participate in the formal economy. This challenge is exacerbated for women merchants, as they are less likely to have access to identity documents. Women-owned micro-enterprises in Africa also largely operate informally. This makes women as both users and merchants a blind spot for regulators and FSPs. Without enough intentionality to explore their financial situation and behaviors, and limited means to identify them due to a lack of sex-disaggregated data, the financial services ecosystem tends to exclude women.

VERIFYING IDENTITY THROUGH KYC PROCESSES

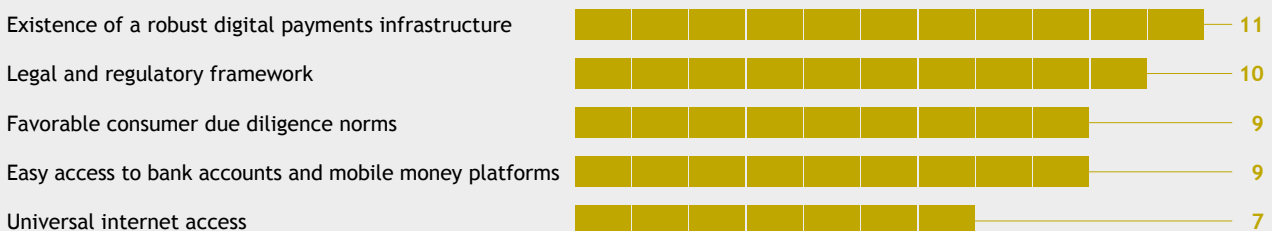
Having to undergo the same KYC process for all kinds of accounts, wallets, and transaction values leads to significant procedural hassles for merchants and customers. While adhering to KYC standards is mandatory for financial institutions as part of AML/CFT compliance, it is also important that KYC norms are proportionate to the level of financial activity and the underlying financial risks posed by that activity while remaining sensitive to gender considerations and the differing experiences of men and women when it comes to accessing formal documentation. To address such challenges, there have been several innovations in KYC processes in recent years have ranged from tiered-KYC to supplementing the KYC process with behavioral, geographic, and biometric mechanisms to verify a person’s identity. These forms of alternative KYC can be particularly beneficial to many disadvantaged communities, including women, forcibly displaced people, and youth.

However, linking the national ID with access to financial services also creates potential risks to data privacy and consumer protection. Misuse of personal data stored in a national identity database can lead to fraud and, in general, mistrust of government initiatives, especially for low and middle-income individuals as users or merchants. These risks can be mitigated through the registration and certification of international standards. Ghana, for instance, stipulates that payment service providers be registered with the Data Protection Commission of Ghana and comply with ISO 27001 standards on information security. For more details on identity and KYC, refer to the AFI’s Policy Model for Digital Identity and e-KYC.⁴⁶

AFI NETWORK INSIGHTS 3: PRE-CONDITIONS FOR THE ADOPTION OF DIGITAL MERCHANT PAYMENTS

■ Number of member institutions considering a particular aspect of digital payments as a pre-condition for adoption

11 regulators within Africa were asked about the top five pre-conditions for the adoption of digital merchant payments in their countries



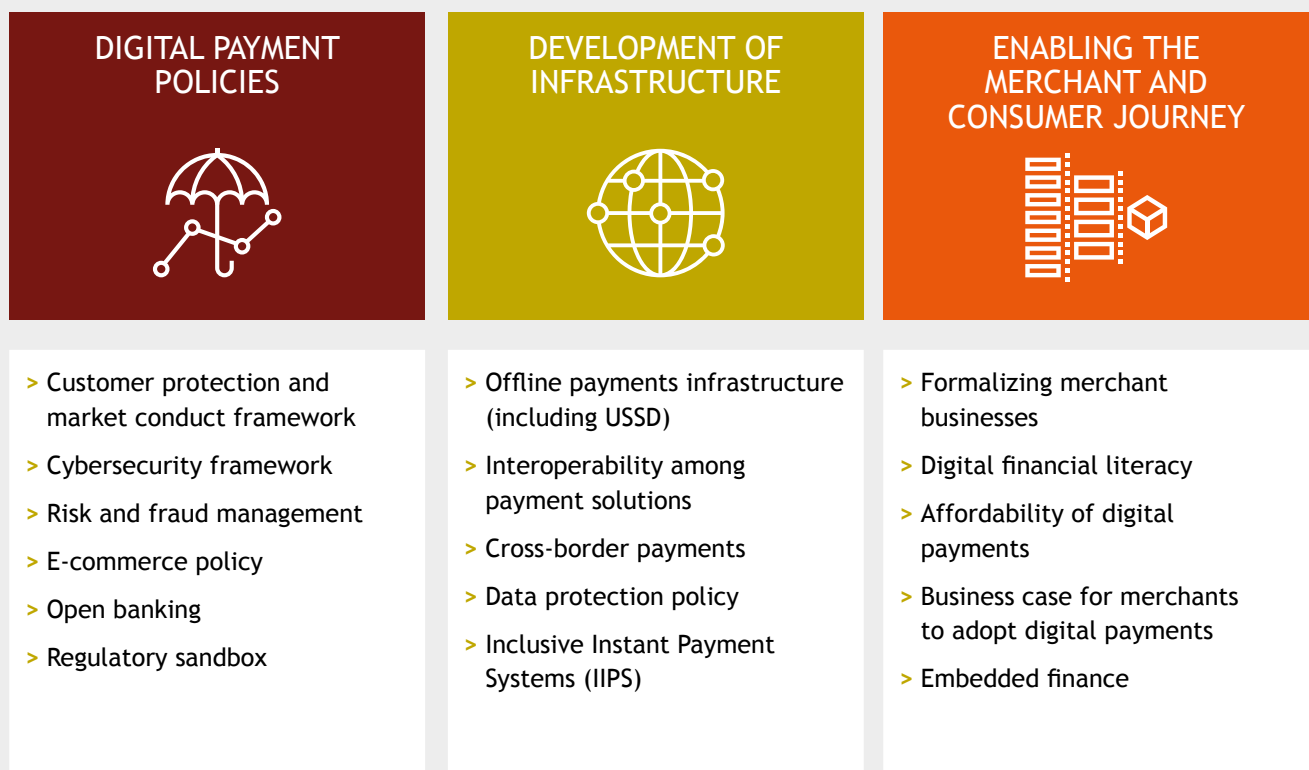
Source: Alliance for Financial Inclusion

ENABLERS FOR THE ADOPTION OF DIGITAL PAYMENTS BY MERCHANTS

5

The enablers for the adoption of merchant payments are categorized into three aspects: Digital payment policies, development of infrastructure for digital payments, and enabling merchant and customer journeys to use digital payments.

FIGURE 10: ENABLERS FOR THE ADOPTION OF DIGITAL MERCHANT PAYMENTS



DIGITAL PAYMENT POLICIES



5.1 CONSUMER PROTECTION AND MARKET CONDUCT FRAMEWORK

Consumer and merchant confidence in the financial system has been identified as a challenge to the adoption of digital payments by countries surveyed for the study.

Fear of financial loss, the inability to understand complex digital payment interfaces, and limited information on procedures for logging complaints and grievances constrain merchants from adopting digital payments. These challenges can further compound as merchants transact with consumers as well as suppliers at a high frequency.

Most countries across Africa have basic consumer protection laws. However, with the changing nature of digital payments conducted online as well as offline, existing frameworks need to evolve to address potential risks faced by consumers and merchants.

52%

For instance, as per UNCTAD currently, there are only 28 countries (52 percent) in Africa with legislation on online consumer protection, specific to e-commerce, where a significant proportion of online payments occur.⁴⁷

In tandem with consumer protection and market conduct guidelines, monitoring and certification mechanisms are useful tools to ensure compliance within the industry and identify gaps in the guidelines.

AFI has prescribed the guiding principles to develop customer protection frameworks for DFS known as the CP4DFS framework.⁴⁸ However, these may need to be adapted to merchant-specific challenges to support the adoption of digital merchant payments. AFI's DFS State of Practice Report also shows that while customer protection policy is a key pillar in financial sector policies for 89 percent of the surveyed countries, only 57 percent of countries have regulations specific to customer protection with respect to DFS. This would be even less for merchants and even less again that are gender sensitive. This also impacts the indices of trust among consumers and merchants in transacting with formal financial institutions.⁴⁹

5.2 DATA PROTECTION AND CYBERSECURITY

With better access to digital infrastructure, individuals as well as public and private entities can access, collect, process, and disseminate personal data with ease. This poses a risk for consumers as well as merchants, in case of a breach of privacy due to the mishandling of data by institutions and cybercrime perpetrated due to vulnerabilities in institutional databases.

In 2021, cybercrime cost Africa approximately USD3.5 billion in direct losses.⁵⁰ The 2021 Global Cybersecurity Index shows that only 29 of 54 African nations have made positive legislative moves toward cybersecurity.⁵¹

61%

Further, per UNCTAD 2021, only 33 African countries have data protection and privacy legislation.

With variations in business models between FinTechs and banks, the prevailing regulation in a country may not fully capture the risks posed to merchants and consumers due to different regulatory provisions for entities and activities across countries and regions. In response, regulators need to adapt and harmonize compliance norms related to the use of data to safeguard financial stability.

5.3 DIGITAL ECONOMY AND E-COMMERCE

The African Union introduced the Digital Transformation Strategy for Africa (2020-2030), in 2019. A key sector of focus for digitalization under this strategy is digital trade and financial services.

Interconnected supply chains and developments in the digital payment infrastructure have supported the growth of e-commerce and made it accessible for micro-merchants. Merchants are looking to leverage technology and online marketplaces to scale operations and overcome the challenges of physical retail spaces.

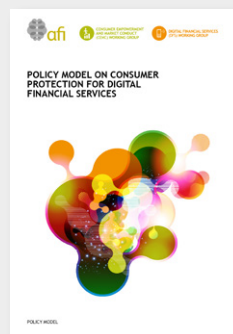
The e-commerce market in Africa has seen dynamic growth in recent years, with targeted financial services and technology solutions for merchants, village-level entrepreneurs, and community-based organizations. Interoperability among mobile wallets has also facilitated e-commerce for small merchants.

Despite initiatives by market stakeholders, challenges persist in enabling large-scale adoption of digital merchant payment solutions. Policies to promote inclusive product development that is affordable, need-appropriate, and equally accessible across all demographics, including men, women, as well as young merchants are crucial to providing an enabling environment for market development.



AFI's Digital Financial Services Regulation: Current State of Practice

[> View here](#)



AFI's Policy Model on Consumer Protection for Digital Financial Services

[> View here](#)

5.4 OPEN BANKING

Open banking has the potential to foster radical innovation, as it can allow different business models to plug and play with legacy banking institutions.⁵²

Through cloud-based processes and services, it can reduce the cost of developing, launching, and servicing products and enable the development of customized affordable products for merchants.

However, without regulatory frameworks for data privacy, cybersecurity, customer protection, and responsible financing, open banking could increase consumer and merchant vulnerability to malpractices, over-indebtedness, and fraud.



Currently, Nigeria, Rwanda, Namibia, South Africa, and Kenya⁵³ are some African countries with guidelines to develop open banking standards, emulating Europe's Payment Service Directive (PSD2).⁵⁴

5.5 INNOVATION FACILITATION

Innovation hubs and regulatory sandboxes provide regulators with market intelligence to observe a new business model or typology, and understand potential risks and areas of intervention, in a controlled environment.

Regulatory sandboxes focused on FinTech products and policies have been established in Seychelles, Egypt, Sierra Leone, Kenya, Rwanda, Mauritius, Mozambique, Eswatini, South Africa, and Ghana, among others since 2016.⁵⁵

Due to resource constraints and limited market participation, thematic sandboxes focusing on merchant payments or solutions for disadvantaged groups have been scarce in Africa.



AFI's Sustaining an Inclusive Digital Financial Services (DFS) Ecosystem During a Global Emergency

> [View here](#)



AFI's Innovative Regulatory Approaches Toolkit⁵⁶ provides detailed insight on sandboxes and innovation hubs

> [View here](#)

DEVELOPMENT OF PAYMENTS INFRASTRUCTURE



5.6 OFFLINE PAYMENTS INFRASTRUCTURE

Offline payments⁵⁷ are typically used in geographies where the internet or telecom connection is unreliable or too costly for small-value transactions. Agent banking, USSD, and prepaid cards are the most popular modes of facilitating offline digital payments in remote regions with low smartphone penetration and limited network coverage.

90%

Nine out of 10 mobile payments in Sub-Saharan Africa flow through USSD.⁵⁸

With limited internet connectivity and low affordability to buy smartphones, a majority of the population uses USSD to transact, access finance,⁵⁹ and even access non-financial services, this was especially the case during the COVID-19 pandemic.⁶⁰ Identifying the potential of USSD as being more accessible and with an easy-to-use interface, FinTechs such as Africa's Talking, and Beem Africa have also rolled out USSD APIs for financial service providers and entrepreneurs, to enable them to collect data, address queries, and register users in USSD format.

However, large-scale adoption of USSD, especially through merchants and businesses comes with considerations including transaction security, lengthy regulatory approval processes, and prohibitive costs, as USSD interfaces are dependent on telecommunication infrastructure.⁶¹

It is also important to build and scale-up other offline solutions including standard QR codes, and NFC based on PoS devices for offline environments, to minimize the exclusion of merchants based in rural areas.

While the development of offline payments technology is a market-led activity, central banks can support the development by incentivizing innovation in the space and establishing guidelines for transactions conducted through offline modes.

5.7 INTEROPERABILITY AMONG PAYMENT SOLUTIONS

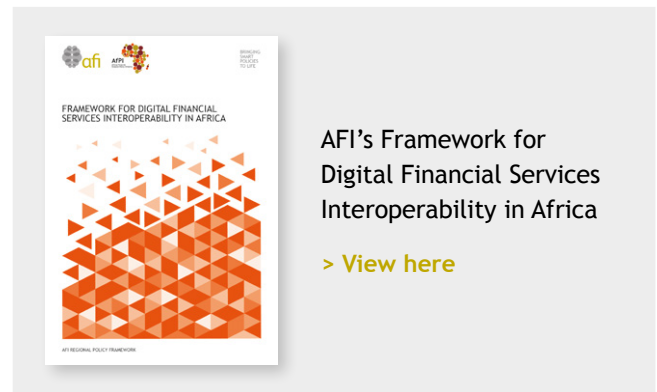
With complete interoperability, consumers and merchants can make digital payments seamlessly, regardless of the source of their account - commercial bank, mobile money operator (MMO), FinTech, MFI, or any other institution. This can bring down the cost of transactions and make digital payments viable for all stakeholders.

While developing interoperability frameworks, central bank regulators strive to achieve a balance between managing risk and encouraging demand. Some key considerations for regulators include:

- > Standardized definitions at the country and regional level, based on globally accepted terms for digital payment systems.
- > Comprehensive oversight, monitoring, and compliance frameworks for different payment systems and stakeholders.

- > Risk-proportionate and measured regulation to not stifle innovation.
- > Ensuring the security of transactions for merchants and consumers through customer protection, data privacy, and cybersecurity frameworks.
- > Stability of infrastructure on which interoperable payment systems can easily function.

AFI has developed a framework for digital financial services interoperability in Africa⁶² highlighting considerations regarding regulations, infrastructure and market aspects, and the role of collaboration and cooperation among government agencies as well as the private sector.

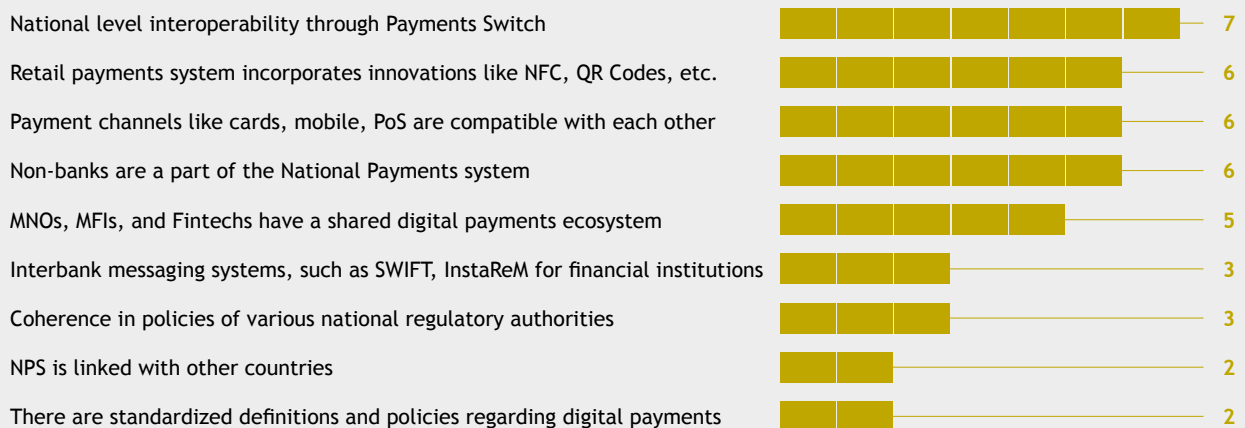


AFI’s Framework for Digital Financial Services Interoperability in Africa

> [View here](#)

AFI NETWORK INSIGHTS 4: LEVEL OF INTEROPERABILITY AMONG PAYMENTS SYSTEMS

11 regulators within Africa were asked about the level of interoperability among payments systems in their countries



Source: Alliance for Financial Inclusion

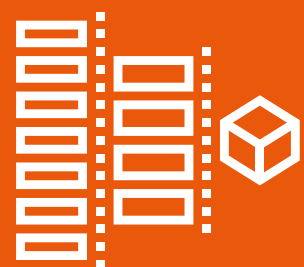
5.8 CROSS-BORDER PAYMENTS INFRASTRUCTURES

Country-level regulation for interoperability in cross-border payments can bring down the cost of remittances and other digital payments, and add value for merchants by opening more avenues for business.

As Africa works towards building the African Continental Free Trade Area (AfCFTA), interoperability of cross-border instant payment solutions will be vital to increasing trade. Ensuring cross-border interoperability of low-value instant payment systems will also be essential to ensure that the AfCFTA is inclusive, and can support micro-merchants, including women-led enterprises.

SADC's Transfers Cleared on an Immediate Basis (TCIB) project to support cross-border payments and remittances for banks and non-banks is another initiative to enable seamless cross-border transfers.⁶³

ENABLING MERCHANT AND CONSUMER JOURNEY



5.9 MERCHANT AND CONSUMER EDUCATION

Low levels of literacy and digital skills can lead to exclusion from formal financial services. For merchants, basic proficiency in dealing with technology is essential to ensure they receive and make payments on a day-to-day basis, track payments through multiple digital accounts, and reconcile transactions for accounting and inventory purposes.

Financial literacy and education programs can reduce information asymmetry and impart digital skills to consumers as well as merchants.

In the interest of an unbiased and comprehensive approach to financial literacy, central banks often include (digital) financial literacy as a key area of focus in their NFIS. Given the vast nature of financial literacy programs, some countries also have National Financial Education Strategies.

While central banks across Africa have extensive programs dealing with consumer-level literacy, there are limited initiatives focused specifically on merchants, around digital payments.

5.10 FORMALIZE SMEs

The informal sector accounts for up to about 80 percent of jobs created in urban Africa, with a majority of enterprises being owned and operated by youth and women.⁶⁴

Informal enterprises are characterized by low productivity, limited access to markets for business growth, and exclusion from formal financial services. Merchants engaged in the informal market largely deal in cash and are wary of compliances and extra costs, making it difficult to transition to digital payments.

While merchants may be willing to get registered with the local authority, to gain access to the state's resources that support micro-merchants and generate more revenues, there are various constraints, such as lengthy registration procedures, lack of supporting documentation, and disproportionate compliance requirements, that deter them from formalizing their businesses.

Regulators can support the formalization of micro-enterprises by streamlining registration processes in several ways, including:

- > **Simplifying the registration process** based on the nature and size of the enterprise and prescribing proportionate compliance norms.
- > **Offering tax incentives**, rebates (or both) for entrepreneurs who register their enterprises in a particular time duration.
- > **Easing the tax regime** for women-owned SMEs and start-ups.
- > **Establishing credit guarantee schemes** for registered micro-enterprises to support business growth and encouraging formalization.

BOX 5: INITIATIVES TO FORMALIZE MICRO AND SMALL ENTERPRISES ACROSS AFRICA

MOROCCO

In Morocco, merchants are viewed as potential ambassadors of financial education that can encourage DFS and economic and social discussions due to their status in the community. They are enlisted to support financial literacy activities for consumers, in addition to the ones conducted for merchants themselves.

- > Bank Al-Maghrib has a digital literacy program in partnership with the Digital Development Agency to educate participants on how to use mobile devices, build familiarity with the user interface of different applications, and understand, identify, and mitigate fraud. The program focuses on youth and rural populations. The central bank offers a platform to bring together value chain partners to better achieve the goal of financial literacy and education.
- > The Morocco Financial Education Foundation is in the process of developing e-learning as well as on-the-ground programs for merchants to support them in using digital financial services, making and receiving digital payments, and understanding the value offered by digital payments.



GHANA

Bank of Ghana works in an advisory capacity to provide information and support to merchants in using digital financial services through its FinTech and innovation office, SME fund, and by developing use cases for businesses to adopt digital payments. They also work with local authorities and NGOs on market conduct and customer protection initiatives.



NAMIBIA

Namibia has launched a National Financial Literacy Initiative, a national platform for consumers and small businesses to create awareness of financial products through school curriculums, community events, and knowledge products in addition to providing training, advisory, and support to SMEs in digital and financial skills



NIGERIA / QNET

QNET, an e-commerce firm in Sub-Saharan Africa launched FinGreen, a financial literacy program as part of its CSR activities. The first pilot in Nigeria offers financial literacy to young adults and women in assessing their financial situations and helping them make decisions based on their budgets and aspirations. A key component of the training is to support aspiring entrepreneurs in realizing their goals



ZAMBIA

NATSAVE in Zambia supports organizations training women and youth entrepreneurs to include training in financial literacy that can help entrepreneurs in managing business finances.



5.11 BUSINESS CASE FOR MERCHANTS TO ADOPT DIGITAL PAYMENTS

Value creation for merchants and consumers is crucial to creating cashless economies. To be convenient for merchants, digital payments must be accepted by suppliers, employees, and customers. Even if one link in this chain prefers cash, it adds both cost and inconvenience for merchants to cash out from a mobile wallet or a bank account.

A business case for the adoption of digital payments by merchants can be made in two ways: Rationalizing the cost of transactions and settlements borne by merchants, and offering value-added services linked with the use of digital payments that can help with business management and growth.

While the creation of value-added services is largely upon market forces, regulators can support the adoption of digital payments by rationalizing transaction and settlement costs to make digital payments more lucrative for merchants.

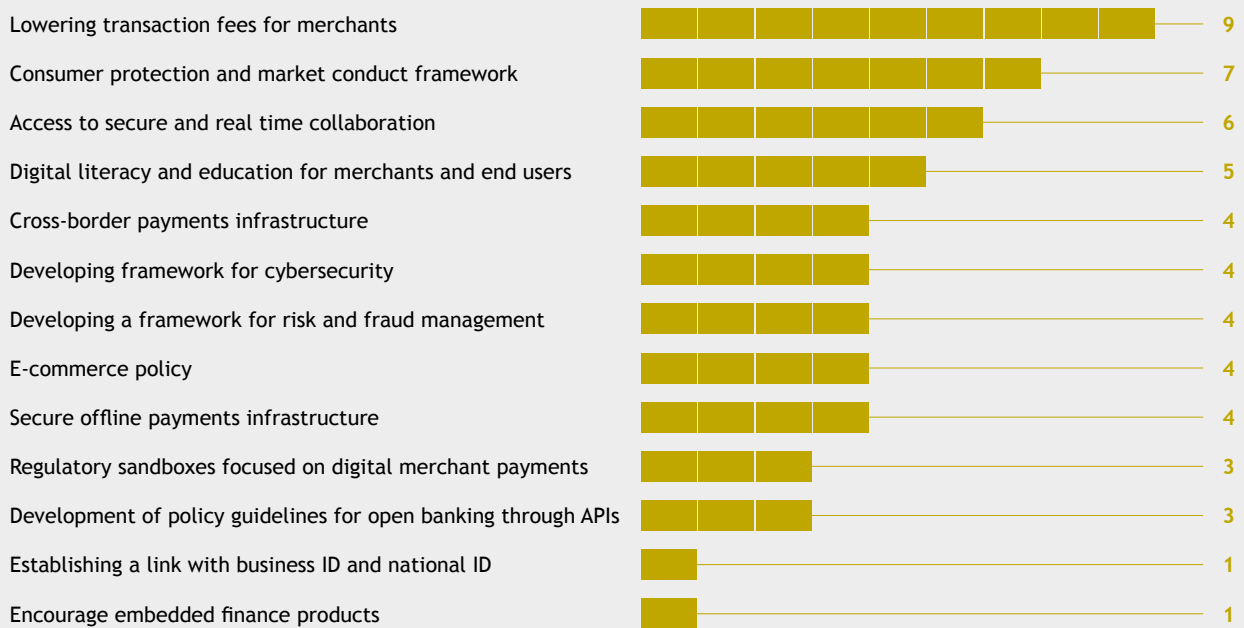
The merchant discount rate (MDR) is the primary cost borne by merchants, payable on every digital transaction. In most cases, merchants transfer this cost to the consumer by levying an extra charge if they choose to pay via a digital mode, which further constrains their use.

In this context, central banks looking to boost digital payments can undertake a review of MDR and other fees payable by merchants, to take corrective action, such that the financial burden on merchants is reduced. Central banks across Africa have also supplemented a review of MDR with merchant education, and dialogue with industry stakeholders to make digital payments and linked value-added services more accessible for micro-merchants.

AFI NETWORK INSIGHTS 5: ENABLERS FOR THE ADOPTION OF DIGITAL MERCHANT PAYMENTS

■ Number of member institutions considering a particular aspect of digital payments as an enabler for adoption

11 regulators within Africa were asked about the top five enablers for the adoption of digital merchant payments in their countries



BOX 5: INITIATIVES TO FORMALIZE MICRO AND SMALL ENTERPRISES ACROSS AFRICA

**CÔTE D'IVOIRE, SENEGAL,
AND GAMBIA**

A “Formalize your business” program by the ILO is being piloted in Côte d’Ivoire, Senegal, and Gambia to sensitize merchants on formalization and guide them through the process

**SENEGAL**

The SME agency in Senegal launched the Employment, Economic Transformation, and Recovery program to boost the digital transformation of 5,000 SMEs to adopt advanced technologies to improve their competitiveness. The Women and Youth Office of Rapid Entrepreneurship also promotes entrepreneurship through PPPs.

**GHANA**

Ghana Card links financial institutions, PSPs, MNOs, and non-bank entities in the country to ease KYC compliance and risk assessments, provide interoperability to consumers, and collect actionable data. The card also provides market data for FinTech innovation easing access to credit and payment solutions for SMEs as well as an alternative means of identification.

**SEYCHELLES**

The Central Bank of Seychelles (CBS), as part of the FinTech plan, is setting up an office to work with small entrepreneurs to provide guidance and resources on formalization as well as facilitate licensing.



CONCLUSION AND THE WAY FORWARD

6



The adoption of digital payments by merchants in Africa has the potential to accelerate access to and usage of digital financial services. Financial sector regulators across Africa have been able to establish the link between a deeper penetration of digital payments with building inclusive cashless economies.

In an enabling environment, digital payments can help bring merchants as well as consumers into the fold of formal financial services, enable these enterprises to grow their businesses, increase account usage, and enable financial institutions to build products around savings, credit, and insurance, suitable for the segment.

However, digital merchant payments are not without risks and challenges. At the outset, such solutions designed without user considerations tend to exclude those with specific or differentiated needs and pain points, including but not limited to micro-merchants, women as entrepreneurs, women as users, and low and middle-income individuals with limited resources.

The digital payments ecosystem has also given rise to a number of service providers, apart from commercial banks. This has helped diversify the types of financial service providers while also giving rise to new delivery models. These developments have had implications on the regulatory front and compelled regulators to update provisions on licensing monitoring, and supervision, and also necessitated that they ensure customer protection, data privacy, and cybersecurity laws to address the risks that may arise for merchants and consumers while using digital payment solutions.

This study has identified that while most central bank regulators across Africa are cognizant of the impact digital payments could have on furthering financial inclusion, the evolution of the ecosystem for digital payments varies across countries. However, the framework and its various pillars to develop an enabling system remain the same. Below are some ways in which central bank regulators can support the adoption of digital payments by merchants.

FIGURE 11: AREAS OF INTERVENTION TO SUPPORT THE ADOPTION OF DIGITAL PAYMENTS





FORMALIZE EFFORTS FOR DIGITIZING PAYMENTS

It is imperative that regulators have an NPS to draw the focus of core teams on digitizing payments for identified target segments. Having an NPS would enable regulators to explore the current landscape of digital payments in the country, gaps in the ecosystem, and also arrive at the desired state that can be achieved in a time-bound manner.

As with other strategy documents, having an NPS in place would also support the development of a roadmap with specific action plans and timelines, and identify collaborations needed to achieve set goals.

It is also important that the National Payments Act and its accompanying regulatory provisions be reviewed and updated to recognize new technologies, emerging business models, and risks of exclusion of women, merchants, and other user segments, and address such risks to ensure equitable access to digital payments.

While the NPS would focus specifically on the development of a payment ecosystem, it is also crucial that countries also have an NFIS, and a National Financial Education Strategy (NFES) in place which supports the development of building blocks that are essential for digital payments to flourish. The development of any strategy including the NFIS, NFES, and the NPS must be undertaken after a thorough understanding of the challenges and coping mechanisms of the intended users and providers of digital financial services, through periodic demand and supply side surveys.



CREATE AN ENABLING ECOSYSTEM FOR INCLUSIVE DIGITAL PAYMENT SOLUTIONS

Central banks can support inclusive product development in two key areas. First, by fostering healthy competition such that incumbent players are pushed to innovate and partner with technology-led firms, and second, by offering guidance to stakeholders to identify merchants as a user segment, understand their needs and behaviors, and address gaps through affordable solutions. Some ways in which this can be done are described below:

REDUCE ENTRY BARRIERS FOR NEW BUSINESS MODELS

- > **Adopt a risk-based approach to licensing and regulations** for a particular sector or segment such that institutions can evolve and are not over-regulated.
- > **Ease and adapt corporate governance guidelines** and introduce tiered capital requirements to allow different business models to reach scale.
- > **Enable interoperability to ensure seamless transactions** across payment platforms and providers. For instance, Namibia's PSD-4 regulation allows payment service providers and banks to process cross-border payments on a case-by-case basis, in the event the domestic switch does not have the capacity to process the transaction.
- > **Constitute special working groups** comprising industry experts to develop an understanding of financial technology developments and the implications for regulators.
- > **Establish sandboxes and innovation hubs** focused on supporting disruptive innovation in the digital payments space.

ADVOCACY AND GUIDANCE TO ENCOURAGE NEED-BASED PRODUCT DEVELOPMENT

- > Encourage financial institutions to understand the financial behaviors and needs of micro-merchants to develop inclusive solutions for them and ultimately include low-income communities through digital payments by highlighting the financial and social benefits.
- > Emphasize the development of affordable solutions for micro-merchants.
- > Encourage the development of cashless value chains where merchants can earn as well as spend (make payments to suppliers and other partners) digitally.



BUILD ON EXISTING INFRASTRUCTURE AND INSTITUTIONAL STRENGTHS WITH A FOCUS ON COLLABORATION

Central banks are tasked with the regulation, supervision, and oversight of some of the FSPs. As such, while central banks would take the lead on establishing interoperability among payment systems, tasks such as developing the underlying infrastructure for access to digital financial services, enabling universal access to National IDs, formalization of businesses, etc. would be out of their core mandate. Furthermore, there are some activities where the central bank can only encourage and nudge financial institutions to take a certain direction.

However, as we have highlighted in this report, all such activities, whether as preconditions or as enablers, are essential to the development of an inclusive digital payment ecosystem. To ensure the holistic development of digital payment systems, central bank regulators must foster collaboration among all relevant stakeholders, and lead by example wherever appropriate. Some ways in which this can be done are below:

- > **Facilitate collaboration among incumbent institutions and new entrants in the financial services space.** Central banks can impress upon banking and other associations the need to upgrade their systems, and innovate through partnerships with FinTechs, mobile money providers, and technology service providers, to create value for merchants.
- > **Create working groups and task liaisons to work with other policymakers, government ministries, and departments** to enable inclusive development in areas including access to infrastructure for digital payments, financial literacy, universal access to identity documents, and ease in the registration process for micro-entrepreneurs.
- > **Take the lead in generating use cases for digital payment adoption** by digitizing government-to-person (G2P) payments, and person-to-government (P2G) payments, such that users, including merchants, can initiate the use of digital payment platforms.



BENCHMARK REGULATORY FRAMEWORKS AGAINST GLOBAL STANDARDS

Countries across the globe are making efforts to create cashless economies. There is a wealth of knowledge, use cases, and learning that central banks can gain from ongoing initiatives in peer countries. To support regulators in developing policies for financial inclusion, and maintain the stability, integrity, and protection of the financial system, various benchmarking institutions have set up global standards. These standards must be implemented gradually based on a risk assessment. Regulators must consider such global standards while creating digital payment policies, such that the systems are harmonized across countries, enable cross-border trade, and provide opportunities for homegrown institutions to operate in the global market.

Some international frameworks for developing inclusive financial systems are the Basel regulations prescribed by the Bank of International Standards (BIS), the Payment Aspects of Financial Inclusion principles developed by the World Bank, Principles for Financial Markets Infrastructure by BIS, Payment Card Industry Security Standards, and ISO standards. It is also imperative that standards be tiered and risk-based to allow for gradual and proportionate compliance.

An ecosystem approach to the development of digital merchant payments is the cornerstone of regulatory intervention. The above-mentioned four broad categories of interventions can enable policymakers to achieve their goal. Regulators need to consider an integrated assessment of the financial sector developments in their jurisdictions as well as the national priorities and policy imperatives before preparing a roadmap for undertaking one or more of the above policy and regulatory interventions.

LIST OF DEFINITIONS

DIGITAL FINANCIAL SERVICES

A broad range of financial services are accessed and delivered through digital channels, including payments, credit, savings, remittances, and insurance. The digital financial services (DFS) concept includes mobile financial services (MFS).

In this context, the term “digital channels” refers to the internet, mobile phones (both smartphones and digital feature phones), automatic teller machines (ATMs), point of sale (POS) terminals, near field communication (NFC)-enabled devices, chips, electronically enabled cards, biometric devices, tablets, phone tablets (phablets), and any other digital system.

DIGITAL FINANCIAL INCLUSION

The use and promotion of Digital Financial Services (DFS) is meant to advance financial inclusion, while the essential components of digital financial inclusion include:

- > a digital transactional platform, a device used by the customer to electronically connect to this platform and perform financial transactions.
- > the use of retail agents for the customer to transact from.
- > the provision of a wide range of financial products and services.

DIGITAL PAYMENTS

A digital payment, sometimes called an electronic payment, is the transfer of value from one payment account to another using a digital device, such as a mobile phone, POS, or computer, through a digital channel of communication, such as mobile wireless data or the Society for the Worldwide Interbank Financial Telecommunication (SWIFT). This definition includes payments made with bank transfers, mobile money, and payment cards including credit, debit, and prepaid cards.

ELECTRONIC MONEY

A type of monetary value that is electronically stored is generally understood to have the following attributes: (i) issued upon receipt of funds in an amount no lesser in value than the value of the E-Money issued and backed by fiat money; (ii) stored on an electronic device, whether or not it is SIM-enabled (e.g. a chip, pre-

paid card, mobile phone, tablet, phablet or any other computer system); (iii) accepted as a means of payment by parties other than the issuer; and (iv) convertible into cash.

FINANCIAL INCLUSION

Access to and regular use of financial services through payment infrastructure is meant to manage cash flows and mitigate shocks. Such financial services are delivered by formal providers through a range of services with dignity and fairness. This definition could differ from country to country.

FINANCIAL TECHNOLOGY (FinTech)

The use of technology and innovative business models in the provision of financial services. The term, a contraction of “Financial Technology”, refers mainly to technological innovations in the financial sector, including innovations in financial literacy and education, retail banking, investment, and even cryptocurrencies.

INTEROPERABILITY

Enabling payment instruments belonging to a particular scheme or business model to be used or interoperated between other schemes or business models. Interoperability requires technical compatibility between systems and can only take effect once commercial interconnectivity agreements have been concluded.

KNOW YOUR CUSTOMER (KYC)

A set of due diligence measures undertaken by a financial institution, including policies and procedures, to identify a customer and the motivations behind their financial activities. KYC is a key component of the AML/CFT regime.

MERCHANTS

Individuals or businesses that provide products or services to the general public. Merchants include micro, small, and medium retailers employing between 1-249 people as defined by the Organisation for Economic Cooperation and Development (OECD). However, the classification varies across countries and jurisdictions.

MOBILE NETWORK OPERATOR (MNO)

A company that has a government-issued license to provide telecommunications services through mobile devices. An MNO is also known as a telco. Due to their experience with high-volume, low-value transactions

and large networks of airtime distributors, MNOs have been critical players in digital financial services.

NON-BANK FINANCIAL INSTITUTION

An institution, different from a bank, that is allowed to provide certain financial services by the regulatory framework in place.

PAYMENT SERVICE PROVIDER

An entity that provides services enabling funds to be deposited and withdrawn from an account; payment transactions involving transfers of funds; the issuance and acquisition of payment instruments such as checks, E-Money, credit cards, debit cards, remittances, and other services central to the transfer of funds.

RISK-BASED APPROACH

An approach that complies with AML/CFT requirements based on the general principle that, where there are higher risks, countries should require digital financial services providers to take enhanced measures to manage and mitigate those risks. Simplified measures may be permitted where risks are lower and there is no suspicion of money laundering or terrorist financing activities.

SWITCH

A payment ecosystem platform that enables payment transactions to be routed from one payment system participant to another, whether within the same network or between different networks or schemes.

ACRONYMS

AFI	Alliance for Financial Inclusion	QR	Quick Response
AfCFTA	Africa Continental Free Trade Area	SADC	Southern African Development Community
AML/CFT	Anti-Money Laundering/Combating the Financing of Terrorism	SME	Small and Medium Enterprises
API	Application Programming Interface	TCIB	Transfers Cleared on an Immediate Basis
BCEAO	Central Bank of West African States	UNCTAD	United Nations Conference on Trade and Development
BIS	Bank of International Settlements	UNECA	United Nations Economic Commission for Africa
BNPL	Buy Now Pay Later	USSD	Unstructured Supplementary Service Data
CBE	Central Bank of Egypt	WAEMU	West African Economic and Monetary Union
CBS	Central Bank of Seychelles		
CDD	Consumer Due Diligence		
DFS	Digital Financial Services		
DNA	Data Network and Activity		
DRC	Democratic Republic of the Congo		
ECCAS	Economic Community of Central African States		
ECOWAS	Economic Community of West African States		
EGFIP	Expert Group of the African Financial Inclusion Policy Initiative		
Findex	Financial Data Exchange		
FinTech	Financial Technology		
FSP	Financial Service Providers		
GDP	Gross Domestic Product		
GDPR	General Data Protection Regulation		
GhIPSS	Ghana Interbank Payment and Settlement System		
GSMA	Global System for Mobile Communications		
HPS	High-tech Payment Systems		
ICT	Information and Communications Technology		
ILO	International Labour Organization		
KYC	Know Your Customer		
MDR	Merchant Discount Rate		
MFI	Microfinance Institution		
MNO	Mobile Network Operator		
NFIS	National Financial Inclusion Strategy		
NFES	National Financial Education Strategy		
NPS	National Payment Strategy		
PoS	Point of Sale		
PPP	Public Private Partnerships		
PSD	Payment Service Directive		
PSP	Payment Service Provider		

ANNEXURE I: INTERVENTIONS BY CENTRAL BANKS ACROSS MERCHANTS' AND CUSTOMERS' VALUE CHAIN

INTERVENTION AREAS ACROSS THE MERCHANT VALUE CHAIN FOR USE OF DIGITAL PAYMENT SOLUTIONS

Across the journey, for merchants to use digital payments, regulators may directly intervene at multiple stages to ease the adoption of digital payments.

For instance, at the onboarding stage, central banks may support merchant capabilities through digital literacy and skill-building programs. While these programs would be implemented through partnerships with grassroots organizations and merchant associations, central banks should also set up separate entities, departments, and working groups to spearhead such initiatives.

FIGURE 12: MERCHANT JOURNEY FOR DIGITAL PAYMENTS



TABLE 1: INITIATIVES UNDERTAKEN TO PROMOTE THE ADOPTION OF DIGITAL PAYMENTS AMONG MERCHANTS

STAGE IN THE VALUE CHAIN	INFLUENCING FACTORS FOR THE ADOPTION OF DIGITAL PAYMENTS	CENTRAL BANK AS THE DIRECT ● INDIRECT ● INTERVENING AUTHORITY ●
ACCESS	Ease of business registration and licensing	●
	Affordability of payment solutions	●
	Reduced cost of settlements	●
ONBOARDING	Digital literacy and skill development	●
	Technical capacity building for merchants	●
	The value proposition for digital payments	●
AVAILABILITY OF APPROPRIATE PRODUCTS	User-friendly interface and experience	●
	Availability of diverse products for multiple use cases	●
	Cybersecurity framework for digital payments	●
RETENTION	Technical support to operate solutions	Market purview
	Favorable commission structures	●
	Redress mechanisms	●
GRADUATION TO VALUE-ADDED SERVICES	Access to credit based on transaction history	●
	Vertical integration solutions	Market purview
	Business management solutions	Market purview
CROSS-CUTTING AREAS	Tax breaks to incentivize the use of digital payments	●
	Anti-trust and competition laws	●
	Interoperability	●

Central banks often monitor and review transaction settlement charges to ensure affordability for technology solutions. Furthermore, cybersecurity in digital payments, data protection, and interoperability are key focus areas for any central bank looking to develop payment policies.

However, we see limited engagement by central banks to engage in areas that are outside the core mandate of financial regulations but which remain important in developing an inclusive payments market. Central banks could intervene indirectly by influencing the actions of financial institutions that they regulate, to develop more inclusive and need-based products.

This could be done through capacity building workshops, industry connections, award mechanisms, encouraging good practices for responsible finance, and developing user-centric products and processes, etc.

INTERVENTION AREAS ACROSS THE CUSTOMER JOURNEY FOR USE OF DIGITAL PAYMENT SOLUTIONS

In enabling user journeys, central banks are largely focused on enabling access to financial services by streamlining KYC requirements, ensuring financial and data security for consumers, incentivizing the use of digital payments, and establishing redress mechanisms.

FIGURE 13: CUSTOMER JOURNEY FOR DIGITAL PAYMENTS



Awareness of digital payments



Access to digital payments infrastructure



Availability of appropriate products



Usage of digital payments and advocacy

TABLE 2: INITIATIVES UNDERTAKEN TO PROMOTE THE ADOPTION OF DIGITAL PAYMENTS AMONG CONSUMERS

STAGE OF THE CUSTOMER JOURNEY	INFLUENCING FACTORS FOR THE ADOPTION OF DIGITAL PAYMENTS	CENTRAL BANK AS THE DIRECT ● INDIRECT ● INTERVENING AUTHORITY ●
AWARENESS OF DIGITAL PAYMENTS	Digital financial literacy	●
	Tiered KYC	●
ACCESS TO DIGITAL PAYMENTS INFRASTRUCTURE	e-KYC	●
	National ID system	●
	Affordability of digital financial services	●
AVAILABILITY OF APPROPRIATE PRODUCTS	Availability of diverse products for multiple use cases	●
	Cybersecurity framework for digital payments	●
	Use cases for digital payments (G2P payments)	●
USAGE OF DIGITAL PAYMENTS AND ADVOCACY	Incentives to increase usage of digital payments	●
	Interoperability of payment providers	●
	Redress mechanisms	●
	Customer protection framework	●
CROSS-CUTTING AREAS	Personal data protection law	●

ANNEXURE II: METHODOLOGY

The insights in this report were drawn from data collected through:

- Desk research.
- A survey addressed to representatives of Financial Supervisory Authorities (FSAs) in selected countries in the African continent.
- Virtual key informant interviews with representatives of central banks and financial service providers.
- Virtual key informant interviews with private sector entities in the digital payments sector.

A. DESK RESEARCH

A literature review was conducted on countries active in the digital payments space both from industry and regulatory perspectives. The countries were selected based on their relative stages of maturity in the digital payments space as well as geographical distribution. These countries include South Africa, Kenya, Nigeria, Ethiopia, Zimbabwe, Madagascar, Tanzania, Egypt, Malawi, Tunisia, and Rwanda. The map below represents the distribution of countries assessed at different stages of the project.



Source: Alliance for Financial Inclusion

B. A SURVEY ADDRESSED TO REPRESENTATIVES OF FSAS IN SELECTED COUNTRIES IN THE AFRICAN CONTINENT

The survey, which aimed to map the current regulatory landscape, initiatives, and challenges regarding digital payments specifically about merchants, included five sections and 47 multiple choice and subjective questions.

Through the survey, we sought responses from 13 African countries and regions based on geographical diversity and development status - and received responses from 11 countries. These responses were then analyzed to distill key findings on regulatory approaches and considerations to develop the digital payments ecosystem, challenges, opportunities, and initiatives undertaken to encourage adoption.

Survey responses were received from central bank representatives in the following countries:

- Reserve Bank of Zimbabwe
- Bank of Sao Tome and Principe
- Bank Al-Maghrib
- Bank of Ghana
- Central Bank of West African States
- Central Bank of Egypt
- Bank of Zambia
- Bank of Namibia
- Central Bank of Eswatini
- Central Bank of Seychelles
- Bank of Madagascar

C. VIRTUAL KEY INFORMANT INTERVIEWS WITH REPRESENTATIVES OF CENTRAL BANKS AND FINANCIAL SERVICE PROVIDERS

In-depth interviews were conducted with regulatory bodies of seven countries and the WAEMU to inform our understanding of the initiatives, approaches, challenges, and opportunities in their respective regions as well as their priorities based on their unique national and regional context.

The interviewees included representatives from the following central banks:

- Bank of Zambia
- Bank of Ghana
- Bank Al-Maghrib
- Central Bank of Namibia
- Central Bank of Seychelles
- Central Bank of Sao Tome and Principe

7. Central Bank of West African States with participants from Senegal, Benin, Burkina Faso, Guinea Bissau, Cote d'Ivoire, Togo, Mali, and Niger
8. Central Bank of Eswatini

D. VIRTUAL KEY INFORMANT INTERVIEWS WITH PRIVATE SECTOR ENTITIES IN THE DIGITAL PAYMENTS SECTOR

Interviews were also conducted with private sector entities with a global and Pan-African presence, namely Mastercard, VISA, Thunes, and Jumo. These interviews provided a unique perspective into the needs and considerations of FSPs when entering or serving a market and the nature of collaboration between the public and private sector entities in developing the digital payment ecosystem.

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